

SAN DIEGO CITY COLLEGE

2024–2025 CATALOG

Fall 2024, Spring 2025, Summer 2025

1313 Park Blvd.,
San Diego, CA 92101
619-388-3400
www.sdcity.edu

Ricky Shabazz, Ed.D.
President

San Diego City College is accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges, 428 J St., Suite 400, Sacramento, 95814, 415-506-0234, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. GED is a registered trademark of the American Council on Education and may not be used or reproduced without express written permission of the American Council on Education.

President's Message

Your Path to Success

Dear Students,

Welcome to San Diego City College!

San Diego City College has a rich history of serving students in our region for more than 109 years. We celebrate our diverse and vibrant student body and our caring and dedicated classified professionals and faculty. Although we come from different places, we join together here at City College focused on one goal: student success.

Whether your goals are to earn an associate degree or certificate, transfer to a four-year college or university, or acquire skills that will lead you to a better paying career, City College can help you there. All students are provided with a pathway to reach their academic, career, and life goals. What will your pathway be?

Take advantage of the many student resources that are available to you. As a student, you only have to ask for help to uncover all the tools that will help you develop an education plan, receive financial aid or scholarship dollars to help pay for your education, and set up time to meet with a counselor. Also, our faculty members are masters at helping our students build personal and professional networks to open up new journeys of exploration.

City College will help you reach your educational and career goals and prepare you for employment, family, and life. Enjoy the journey and I look forward to having you as a City College student.

Sincerely,



Ricky Shabazz, Ed.D.

President



Board of Trustees

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President

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Executive Vice President

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Vice President for Legislative Advocacy

Student Members 2024–2025

The Associated Student Government (ASG) elections are held at the end of the Spring semester. The ASG Presidents from City, Mesa, and Miramar colleges along with the Associated Student Body (ASB) President from College of Continuing Education serve as the student members of the Board of Trustees.

Chancellor and Secretary to the Board
Gregory Smith

District Administration

Gregory Smith
Chancellor

Nancy Lane
Acting Vice Chancellor, Finance and Business Services

Aimee Gallagher, J.D.
Acting Vice Chancellor, People, Culture, and Technology Services

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Director, Communications and Public Relations

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Vice Chancellor, Institutional Innovation and Effectiveness

Laurie Coskey, Ed.D.
Vice Chancellor, Development and Entrepreneurship

Margaret Lamb
Executive Assistant to the Chancellor



San Diego Community College District Board of Trustees: (from left, back row) Geysil Arroyo, Mary Graham and Craig Milgrim (front row) Bernie Rhinerson and Maria Nieto Senour

San Diego City College Administrative and Supervisory Personnel

President.....Ricky Shabazz, Ed.D.	Director, Tutorial
Vice President,	ServicesAnourack (Lance) Soukhaseum
Administrative ServicesJohn Parker, DBA	Director, Upward Bound Elizabeth Vargas
Vice President,	Coordinator, Affirmative Action
Instruction Matilda Chavez	Officer/Title IX Deputy Adan Sanchez, Ed.D.
Vice President,	Coordinator, CalWORKS Mariam Mena
Student ServicesMarciano Perez, Jr.	Coordinator, CARE/EOPS Margie Spikes-Tucker
Dean, School of Information and Learning	Coordinator, Career CenterNesha Savage, Ed.D.
Technology Robbi L. Ewell	Co-Coordinator, Guided Pathways.....Elsa Cristina
Dean, Institutional	Carrillo, Ed.D.
Effectiveness..... Susan Allen Murray, Ph.D.	Co-Coordinator, Guided Pathways..... <i>Vacant</i>
Dean, School of Arts, Humanities,	Coordinator, NextUp/EOPS..... <i>Vacant</i>
Communications, and	Coordinator, Outreach..... Clarissa Padilla
TelecommunicationsAndy MacNeill, Ed.D.	Coordinator, Job Placement..... Roger Sanchez
Dean, School of Behavioral and Social	Coordinator, Occupational, Environmental Health &
Sciences, and Consumer and	Safety John Boyce
Family StudiesMasahiro Omae, Ph.D.	Coordinator, Professional
Dean, School of Business, Information	Development Don Long
Technology, Cosmetology, Engineering, and	Coordinator, San Diego Promise
Trades..... Jesse Lopez	Program.....Crystal Rodriquez
Dean, School of Mathematics, Sciences,	Coordinator, Student Affairs..... Lori Oldham
and Nursing Education..... Leticia Lopez, Ph.D.	Acting Coordinator, Transfer
Dean, School of Health, Exercise Science,	CenterMelody Michelle Valencia
and Athletics..... Aaron Detty	Supervisor, Accounting/Student
Dean, Outreach and Enrollment	Accounting.....Regie Balintec
ServicesGenevieve Esguerra	Supervisor, Admissions and Records.... Alyssa Antonio
Dean, Student Affairs Adan Sanchez, Ed.D.	Supervisor, Business Office Support..... Lydia Bakit
Acting Dean, Student Development and	Supervisor, Counseling/Evaluation/
MatriculationBernice Lorenzo, Ed.D.	AssessmentJosolyn Hill, Ed.D.
Associate Dean, Nursing	Supervisor, Digital Print Production/
Education.....Dometrives Armstrong, D.N.P.,	Mail RoomPatricia Fernandez
M.S.N., F.N.P., P.H.N., R.N.	Director of Campus Facilities and Operations Jay
Associate Dean, Strong	Purnell
WorkforceSasha Knox, Ed.D.	Acting Supervisor, Facilities..... Billy Welton
Director, Administrative Services..... Roxanne Solis	Supervisor, Financial Aid..... Alisia Rincon
Director, Development and	Supervisor, Independent Learning
Entrepreneurship.....Erin Flanagan	Center (ILC).....Majeda Nasrawi
Director, Disability Support	Supervisor, Institutional
Programs & Services	Research.....Brittney Carroll
(DSPS).....Darren J. Walters, M.S., CRC Counselor	Supervisor, Instructional Support,
Director, Enrollment Services..... Dora Meza	Library Daniel Gonzalez
Director, EOPS/CARE/	Supervisor, Office of Classroom
NextUp Mireya Gutierrez-Aguero	Technology Management
Director, Financial Aid Wendy Wang	and Multimedia (OCTM).....Majeda Nasrawi
Director, Mental HealthLeslie Easton, LCSW	Acting Supervisor, Receiving/
Director, MESA Program.....Rafael Alvarez	Stock Room.....John Parker, DBA
Director, Student Health Clinic.....Elaine Eng, M.S.N.	Supervisor, Technical Support
Director, Title III HSI STEM.....Claudia Diaz Carrasco	Group (TSG) Al Cordeiro

Supervisor, VA/Veterans Service
Center Carolina Guardado
Acting Supervisor, Welcome Center Clarissa Padilla
Articulation Officer Elizabeth Norvell
Public Information Officer Cesar Gumapas

Accreditation

San Diego City College is accredited by the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges, 331 J St., Suite 200, Sacramento, CA 95814, (415) 506-0234, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. Additional information about accreditation, including the filing of complaints against member institutions, can be found on ACCJC's website (<https://accjc.org>) under the Resources dropdown menu. City College is also approved by the California State Department of Education. In addition, certain programs at City College hold special accreditation:

The Associate Degree in Nursing program at San Diego City College is approved by the California Board of Registered Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326. <https://www.acenursing.org/search-programs>

City College is accredited by the Office of Private Postsecondary Education for the training of veterans, as well as the U.S. Department of State and the U.S. Immigration Service for international student education. Courses paralleling university level work are accepted by the University of California, California State University, and by other universities and colleges.

Persons interested in the institution's accreditation and program approvals may review documents describing these activities in the President's Office. These documents will be available for such review at a mutually convenient time during regular business hours, and an appropriate interpretation of their contents will be provided if requested.

Academic Freedom & Freedom of Expression

(Board of Trustees Policy – BP 4030)

The San Diego Community College District is committed to an academic environment that embraces the principles of academic freedom and freedom of expression. This commitment is based upon the value that free expression is essential to excellence in teaching, learning, critical inquiry and service to the community.

You may view a full copy of the policy by accessing the following website:
[Board Policies and Administrative Procedures](#).

1. ACADEMIC FREEDOM

- a. Academic freedom affords the faculty the right to speak and write freely, without unreasonable restrictions or prejudices.
- b. In accordance with the doctrine of academic freedom, faculty have the following fundamental rights:
 1. Faculty primacy as a collective body in designing and approving curriculum and instructional methods regardless of delivery modality;
 2. Individual faculty member determination of instructional materials, course content, and presentation, and student evaluation methods, in concert with colleagues, so as to assure consistency of instruction and academic standards;
 3. Individual faculty member freedom to discuss subject matter of the course, as appropriate to the standards of the discipline and academic community, even when that material is controversial;
 4. Individual faculty member authority to evaluate enrolled students on the basis of the academic merit of the students' performance;
 5. Individual faculty member freedom to choose of professional research topics and methods of investigation— subject to professional and peer-determined

standards—as well as unconditional freedom to publish their work; and

6. Individual faculty member right to participate in curriculum review, accreditation processes, and other forms of participatory governance.

2. FREEDOM OF EXPRESSION

- a. Freedom of expression affords the faculty, staff, and students the right to speak and write freely in accordance with the constitutional protections of free speech—without fear of retaliation. In particular:
 1. The District shall protect the rights of faculty to express their views in the classroom that pertain to class content. While it is understood that controversy is often at the core of inquiry, such controversy should be addressed in a mutually respectful manner;
 2. The District shall protect the rights of faculty, staff, and students to speak freely on matters of public concern;
 3. Faculty, staff, and students are free to explore a wide range of views and judge the merits of competing ideas;
 4. As outlined in board policies and administrative procedures, faculty, staff, and students have responsibilities which are based upon principles of fairness, integrity, confidentiality, safety, professionalism, and respect for others;
 5. Faculty, staff, and students have the right to join or form organizations in accordance with District policy and procedures; and
 6. Faculty, staff, and students have the right to participate in governance in accordance to District policy and procedures.

Disclaimer

The San Diego Community College District is governed by its Board of Trustees. No oral or written representation by any employee of the college is binding on the San Diego Community College District without the express approval of the Board of Trustees.

Table of Contents

Welcome to City College 1

President’s Message.....	2
Board of Trustees	3
District Administration	3
San Diego City College Administrative and Supervisory Personnel	4
Accreditation	5
Academic Freedom & Freedom of Expression	5

Academic Calendar 2024–2025 9

Fall Semester 2024	9
Intersession 2025	9
Spring Semester 2025	9
Summer Session 2025	10

General Information..... 11

History	12
San Diego City College Foundation.....	13
Statement of General Education Philosophy	14
Institutional Learning Outcomes	14
Mission	15
Institutional Priorities.....	15
Student Learning Outcomes	16
Disclaimer.....	16

Admissions and Registration..... 17

Student Success and Support Program.....	18
Registration.....	21
Prerequisites, Corequisites, Limitations on Enrollment and Advisories	25
Residency	25
International Students	27
Fees.....	28

Student Services 31

Athletics	32
CalWORKs/Believe Program	32
Campus Store.....	32
City Scholars Program.....	32
Counseling Services.....	33
City Times Media, Student Journalism.....	33
disAbility Support Programs and Services (DSPS).....	34
Early Education Center	34
English Language Acquisition (ELAC)	35
Evaluations.....	35

Extended Opportunity Programs and Services (EOPS)	35
Financial Aid	37
HUBU.....	42
Learning Resource Center (LRC).....	42
Mental Health Counseling.....	43
MESA Program.....	43
Outreach	44
Performing Arts.....	44
Puente Project	44
San Diego Promise Program.....	45
Student Accounting.....	45
Student Affairs/Campus Life.....	45
Student Health Center	46
Support Services	46
Transfer/Career Center.....	47
Tutorial Services	48
Umoja.....	49
Veterans and Service Members	49
Welcome Center.....	51
Work Experience Program	51

Academic Information and Regulations 53

Academic Information	54
Grading System	56
Standards of Academic Progress.....	58
Academic Regulations	59
Academic Transcripts	60
Transfer of Credits.....	61
Credit for Prior Learning.....	61
Volunteer/Visitor Conduct Expectations.....	93
Student Records, Release, Correction and Challenge.....	94
Complaint Processes	94

Academic Requirements 97

The Baccalaureate Degree.....	98
All Degrees Have the Following Requirements in Common	98
Associate in Arts for Transfer (AA-T) or Associate in Science for Transfer (AS-T) for California State University (CSU).....	99
Associate of Arts and Associate of Science Degree Requirements	100
Graduation	114

Transfer Guide117

University Transfer..... 118
 Steps to Transfer..... 118
 Transfer General Education Options..... 125

Degree Curricula and Certificate

Programs143

Accounting..... 154
 Agriculture 157
 Air Conditioning, Refrigeration, and
 Environmental Control Technology 160
 Alcohol and Other Drug Studies 165
 American Sign Language..... 167
 Anthropology..... 167
 Art – Fine Art 170
 Astronomy..... 176
 Biology..... 177
 Black Studies 180
 Business Studies..... 182
 Chemistry 187
 Chicana and Chicano Studies..... 188
 Child Development..... 189
 Communication Studies..... 193
 Computer Business Technology..... 196
 Conflict Resolution 207
 Cosmetology 209
 Design..... 215
 Digital Journalism..... 218
 Economics 219
 Electricity 221
 Electromechanical Engineering
 Technology..... 223
 Electronics..... 225
 Energy and Geo-Environmental
 Engineering 229
 Engineering 230
 English 233
 English Language Acquisition 236
 Exercise Science 237
 Film, Journalism, and Media Production..... 241
 Transfer Information..... 250
 French 250
 General Education..... 251
 Geography 252
 Geology..... 254

German..... 256
 History 257
 Human Services..... 259
 Community Health Work..... 259
 Italian 263
 Labor Studies 264
 Liberal Arts and Sciences..... 265
 Language
 Arts and Humanities: 265
 Scientific Studies: 267
 Social and Behavioral Sciences: 270
 Visual and Performing Arts:..... 272
 Machine Technology 274
 Manufacturing Engineering Technology 276
 Mathematics..... 281
 Music – Commercial 284
 Nursing Education..... 285
 Philosophy 290
 Photography..... 293
 Physics 297
 Political Science..... 299
 Psychology 302
 Social Work..... 306
 Sociology 307
 Spanish 310
 Sustainability..... 311
 Theatre..... 312
 Apprenticeship 317
 Operating and Maintenance Engineers... 318
 Communications Technician
 Apprenticeship..... 319
 San Diego Gas and Electric Company
 Lineman Apprenticeship 320
 San Diego Transit Electronic Technician
 Apprenticeship..... 321
 San Diego Trolley
 Apprenticeship..... 322
 Solar Turbines, Incorporated
 Apprenticeship..... 324

Course Descriptions327

San Diego City College Community555

Index.....571

Map of Campus581

Academic Calendar 2024–2025

Fall Semester 2024

16-WEEK SEMESTER: Fall Classes..... August 19, 2024 – December 16, 2024

SPECIAL DATES

April 12, 2024	Deadline to file an application for admission and receive a registration date and time for the Fall semester. Students who file an application after the deadline will register during open registration.
August 18, 2024	RESIDENCE DETERMINATION DATE (APPLIES TO ALL SESSIONS)
September 2, 2024.....	Holiday – Labor Day*
September 17, 2024	Constitution Day (Classes are in session)
November 11, 2024	Holiday – Veterans Day*
November 15, 2024	Last day to file a petition for graduation for an Associate Degree or Certificate of Achievement for Fall 2024 completion.
November 25 – 27, 2024.....	Classes not in session
November 28 & 29, 2024	Holiday – Thanksgiving*
December 17, 2024 – January 3, 2025	Winter Recess

Interession 2025

4-WEEK INTERSESSION: January 6–31 2025

SPECIAL DATES

October 18, 2024	Deadline to file an application for admission and receive a registration date and time for Interession. Students who file an application after the deadline will register during open registration.
January 20, 2025.....	Holiday – Martin Luther King Day*
February 2, 2025	RESIDENCE DETERMINATION DATE (APPLIES TO ALL SESSIONS)

Spring Semester 2025

16-WEEK SEMESTER: Spring Classes February 3 – June 2, 2025

SPECIAL DATES

October 18, 2024	Deadline to file an application for admission and receive a registration date and time for the Spring semester. Students who file an application after the deadline will register during open registration.
January 20, 2025.....	Holiday – Martin Luther King Day*
February 2, 2025	RESIDENCE DETERMINATION DATE (APPLIES TO ALL SESSIONS)
February 14, 2025.....	Holiday – Lincoln Day*
February 17, 2025.....	Holiday – Washington Day*
March 31 – April 3, 2025	Spring Recess – Classes not in session.
April 4, 2025.....	Holiday – Cesar Chavez Day*
April 30, 2025	Last day to file a petition for graduation for an Associate Degree or Certificate of Achievement for Spring 2025 completion.
May 26, 2025	Holiday – Memorial Day*

*** No Saturday or Sunday classes after a Friday holiday. No Sunday classes before a Monday holiday.**

Note: Holidays apply to all sessions.

Summer Session 2025

Summer Classes:..... June 9 – August 16, 2025

SPECIAL DATES

- April 11, 2025..... Deadline to file an application for admission and receive a registration date and time for the Summer semester. Students who file an application after the deadline will register during open registration.
- June 8, 2025..... RESIDENCE DETERMINATION DATE (APPLIES TO ALL SESSIONS)
- June 19, 2025..... Holiday – Juneteenth*
- July 4, 2025..... Holiday – Independence Day*
- July 31, 2025..... Last day to file a petition for graduation for an Associate Degree or Certificate of Achievement for Summer 2025 completion.

*** No Saturday or Sunday classes after a Friday holiday. No Sunday classes before a Monday holiday.**

Note: Holidays apply to all sessions.



General Information

<i>At-A-Glance</i>	<i>Page</i>
History	12
San Diego City College Foundation.....	13
Statement of General Education Philosophy	14
Institutional Learning Outcomes.....	14
Mission	15
Institutional Priorities.....	15
Student Learning Outcomes	16
Disclaimer	16

History

San Diego City College is a public, two-year community college administered by the San Diego Community College District. Serving as the educational cornerstone of downtown San Diego, the college comprises 60 acres and is 1/5 of the downtown footprint. The college offers more than 200 majors and certificate programs and 1,800 classes each semester to more than 13,000 students.

Chronology

1914

City College was the first community college in San Diego (San Diego Junior College) with 34 students and 4 instructors. City College was the fifth community college established in California.

1921

City College moved from the high school to share facilities with the State Normal School, the four-year teachers' college, which became San Diego State University.

1939

San Diego Evening Junior College was created by splitting the institution into two entities, day and evening. With the industrial growth in San Diego, the Evening College was needed to meet the demand for college courses for daytime working people.

1946

City College moved back to San Diego High School and reorganized into three branches: San Diego Vocational High School, San Diego College Arts and Sciences, and San Diego Evening Junior College.

1953–54

The first parcel of land, a single city block between Russ Boulevard and A Street, from 14th to 15th Streets, was purchased for the permanent home of what is now San Diego City College. The first buildings constructed were the "A" and "T" buildings.

1970s

Increasing enrollment resulted in a major expansion project bounded by Russ Boulevard, 17th, 12th and C Streets. The "L," "C," "S," "M," "E," "D" and "F" buildings were constructed.

1972

San Diego voters authorized a separate Community College District.

1988

A Facilities Master Plan was developed to recommend modifications to the existing facility, to meet current and future needs.

1989

City College celebrated its 75th Anniversary.

1992

The new 3,000 sqft. Fitness Center opened with full fitness and exercise facilities.

1998

City College leased to San Diego Unified School District the property on which Garfield High School and a 420-space parking structure is built. City students shared use of the parking and the College can offer classes in the facility.

2000

Construction completed on the 8,000 sqft. Educational Technology Center. The ETC is fully equipped with state-of-the-art media and teleconferencing equipment.

2002

The 67,000 sqft. Learning Resource Center (LRC) replaced the 30-year-old library. The facility offers the most advanced research and learning tools available with 300-internet connected computers, multiple electronic databases, plasma displays, a collection of more than 67,000 books and over a thousand periodicals. The three-level LRC also houses the Office of Classroom Technology and Multimedia Center, the Independent Learning Center, and CitySITE – a center for faculty and staff development.

2005

A new Facilities Master Plan was approved by the Board of Trustees and projects a 20-year build-out to accommodate 25,000 students.

2005

The 2,000-seat, 55,000 sqft. Harry West Gymnasium "P" building opened. Dedicated to beloved Coach West, students enjoy three regulation basketball courts, six badminton courts, three volleyball courts, intercollegiate team rooms, workout facilities, and new classrooms.

2007

Eight high-tech classrooms added to the LRC lower level, with additional offices and meeting space.

2009

The 27,800 sqft. Academic Success Center “L” building opened to provide a one-stop service area for students, including: Tutorials, Math and English Centers, and the EOPS, MESA (Math, Engineering, & Science Achievement), New Horizons, Puente, Umoja, and CalWORKs Programs.

2010

The new 88,000 sqft. “V” building CTC – Career Technology Center – opened. This five-level building at 16th & C Streets houses Cosmetology, Nursing, Photography and Digital Arts, a Student Gallery, the College Police and an 11-story 700-car parking structure.

2013

The 66,000 sqft. Mathematics and Social Sciences “MS” building opened. This five-story facility houses Psychology, Sociology, Anthropology, Alcohol and Other Drug Studies, Human Services, Peace Studies, Gender Studies, the Institute for Human Development, the Corporate Education Center and the District’s Military Education program. A seven-story, 400-stall parking garage is adjacent to the building.

2014

In spring, the 98,000 sqft. Life Sciences and Physical Sciences “S” building opened. The four-story building includes classrooms, labs, an outdoor teaching garden, a rooftop observation deck and a planetarium.

In fall, the 128,000 sqft. Arts & Humanities and 62,000 sqft. Business and Technology buildings welcomed new students for classes in the Visual Arts, English, Speech, Foreign Languages, Business Studies, and Computer Systems. A new art gallery and sculpture garden hosts fine arts exhibits and events.

2015

The 15,000 sqft. “M” building renovation provided new homes for the Office of Student Affairs, and a working and gathering space for Associated Students Government and student clubs. Facilities operations are located on the lower floor.

2016

In spring, the 31,155 sqft. Center for the Media and Performing Arts “C” building opened with contemporary new spaces for Dance, Drama & Theater, Music, and Radio, TV & Film programs. Students now enjoy a cutting-edge, fully digital TV studio and recording studios for producing its weekly, student produced “Newscene” news show.

2018

In Fall 2018, the “A” building opened after an extensive remodel with an emphasis on Student Services.

2021

In spring, construction of the 10,000 sqft. Early Education Center was completed. The new space includes classrooms for infant, toddler, and preschool children; faculty offices; a kitchen; lobby/reception area; and a faculty conference room. Other features include a 14,000 sqft. playground space, equipment storage, and a parking/drop off area.

San Diego City College Foundation

As San Diego City College honors its past, the San Diego City College Foundation is working to strengthen its future. Established in 1972, the San Diego City College Foundation Board of Directors is comprised of distinguished business and community leaders. The Foundation fundraises to empower staff, students, alumni and community members with financial support for student success. The Foundation is dedicated to supporting programs that foster community partnerships and enhance the educational excellence provided by City College.

Foundation Board

Officers

Chairperson

Gerald A. Ramsey

Vice-Chairperson

Delonda Peppers

Executive Director

Vacant

Development and Entrepreneurship Director

Erin Flanagan

Treasurer

Roxann Solis

Secretary

Bianca Arellano

Foundation Board Members

Bianca Arellano

Arthur Benjamin

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L. James Haddan

Maurice Lyles

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Lance Mueller

John Parker, DBA

Delonda Peppers

Sylvia Ramirez

Gerald Ramsey

Lupe Sandoval

Arthi Selvaraj

Ricky Shabazz, Ed.D.

Roxann Solis

Yolanda Tanner

Wendy Wang

Statement of General Education Philosophy

The general education program at the colleges in the San Diego Community College District is designed to broaden students' knowledge and their understanding of methods of gaining knowledge in a variety of disciplines and to develop students' abilities in critical thinking, in oral and written communication, and in mathematics.

The awarding of an Associate Degree symbolizes an attempt on the part of the college to lead students through patterns of learning experiences designed to develop an awareness of other cultures and times; to achieve insights gained through experience in thinking about ethical problems; and to develop the capacity for self-understanding. In addition to these accomplishments, students should possess sufficient depth in some field of knowledge to contribute to lifetime interest.

Institutional Learning Outcomes (also referred to as Institutional Competencies)

The Institutional Student Learning Outcomes (ISLOs) for San Diego City College reflect the college's General Education philosophy and describe the knowledge, skills, abilities, and attitudes students will develop as a result of their overall experience at SDCC. Achievement of ISLOs is marked by the successful completion of an Associate's degree, completion of transfer curriculum and/or a Certificate of Completion. A single course is not expected to meet all the ISLOs; rather, it is the successful completion of a combination of courses in a specific program of study that enables the student to achieve the ISLOs.

SDCC has identified the following ISLOs, based upon established Institutional Core Competencies:

1. Communication/Interpersonal Skills

Students will be able to communicate effectively in a variety of settings using oral and written communication modalities.

2. Critical Thinking

Students will be able to apply critical thinking skills in order to analyze data, text and issues.

3. Analysis/Computation

Students will be able to apply mathematical concepts to perform computations and analyze and interpret data.

4. Cultural Sensitivity/Global Awareness

Students will be able to successfully interact with individuals representing a wide range of backgrounds, analyze varying cultural beliefs and behaviors, and identify social, political and economic issues relevant to the local community, the state, the nation, and the world.

5. Information Management/Literacy

Students will be able to obtain data from various sources, as well as organize, process and analyze data for relevancy.

6. Personal Responsibility

Students will be able to demonstrate self-awareness and navigate effectively between one's

own value system, professional obligations and responsibilities as a member of society.

7. Civic and Environmental Responsibility

Students will be able to relate the natural environment to human health and happiness and evaluate the effect of human activity on the welfare of the global environment.

Mission

San Diego City College has as its highest priority student learning and achievement. The college provides lower division and general education courses that lead to certificates, associate degrees or transfer to a four-year college or university; career technical education programs that meet specific industry needs, upgrade the employment skills of students and fulfill licensing requirements of the state of California as well as contribute to the economic development of our region; basic skills instruction to assist all students in meeting their educational goals; and essential student support services for all students.

Values

San Diego City College is a multicultural institution committed to providing open access to all who can benefit from instruction and to meeting the diverse and ever-changing educational, cultural, and economic needs of the urban core and surrounding communities of San Diego. We are committed to the tradition of academic freedom and responsibility, to employee empowerment, and to maintaining a climate that promotes learning, understanding and respect for students, faculty, staff, community, and the environment. The following are core tenets of our value system:

- The development of informed, active individuals who will be engaged in the global community, lifelong learners, social justice advocates, and literate in information technology;
- Institutional community involvement, community development and community service;
- Equity, inclusiveness and diversity in all of its manifestations;
- High quality instructional programs emphasizing creative and critical thinking;
- Essential student support services, including co-curricular and cultural activities;

- Environmental sustainability and a campus culture of conservation; and
- A continuous campus-wide cycle of assessment and program review with integrated planning and resource allocation.

Institutional Priorities

San Diego City College's Mission Statement is central to planning and decision-making. Derived from the mission statement, there exists more specific college goals, our Institutional Priorities. All ongoing and new initiatives are linked to these priorities. There currently are eight institutional priorities:

- **Student Success**—Support improved student learning, achievement of student learning outcomes, course completion, certificate and degree completion, transfer rates, and workforce competencies.
- **Innovative Approaches**—Provide state-of-the-art general education, *transfer*, and career technical programs by utilizing current technologies, innovative teaching and learning approaches, and delivery systems, and academic and student support services *which include essential student support services, including co-curricular and cultural activities*.
- **Equity, Inclusiveness, and Diversity**—Strengthen and support an inclusive and diverse campus culture which enhances student, faculty, and staff success and *closes equity gaps*. City College *promotes lifelong learning, social justice advocacy, and information technology literacy*.
- **Collaborative & Outreach Ventures**—Develop collaborative and outreach ventures that enhance student learning within the college, district and community, public and private agencies, businesses, and industry—locally, nationally, and globally.
- **Environmental Stewardship**—Strengthen a measurable environmental stewardship effort that implements sustainable practices and educates the campus community.
- **Institutional Accountability**—Demonstrate accountability through the integrated process of assessment, program review, planning,

resource allocation, accreditation, and on-going evaluation.

- **Strategic Planning—*Links campus planning to District planning efforts.***

Student Learning Outcomes

Student learning outcomes are defined for each program. Students should be aware that course outcomes link to the larger institution via program outcomes which map to institutional learning outcomes, institutional priorities and San Diego City College's mission.

Disclaimer

While every reasonable effort has been made to ensure that statements in this catalog are accurate, it must be understood that the information contained herein is subject to change or elimination without notice by the administration of the San Diego Community College District. Students should consult the appropriate campus or department for current information, as well as for any special rules or requirements imposed.

Admissions and Registration

<i>At-A-Glance</i>	<i>Page</i>
Student Success and Support Program	18
Registration	21
Prerequisites, Corequisites, Limitations on Enrollment and Advisories	25
Residency	25
International Students.....	27
Fees.....	28

Student Success and Support Program

The goals of the Student Success and Support Program (SSSP) are to ensure that all students complete their college courses, persist to the next academic term, and achieve their educational objectives through admissions, orientation, assessment, educational planning with a counselor, and student follow-up.

Steps to Student Success

Step 1 – Admission Application

Step 2 – Apply for Financial Aid

Step 3 – Orientation

Step 4 – Placement

Step 5 – Educational Plan

Step 6 – Register and Pay

Step 7 – Follow up with a counselor

These services have been designed especially for students who intend to earn a certificate or degree at the college or to transfer to a four-year college or university. However, the services are available to all students admitted to the college, and all students are encouraged to participate in the various services of the program.

1. Admission Application

Admission is open to anyone who meets one of the following criteria:

- Persons who possess a high school diploma or California high school proficiency exam certification or a high school equivalency certificate.
- Persons 18 years of age or older or emancipated minors who do not possess a high school diploma or equivalent may be admitted by the college under provisional admission status.
- High school students requesting concurrent enrollment may be admitted as “special part-time” students subject to the following criteria:
 - a. Students must have completed the 10th grade.
 - b. Students may enroll in fewer than 12 units

and have their enrollment fees waived.

- c. Students will be assessed ALL enrollment fees if enrolled in 12 or more units for classes taught on college campus.
 - d. All holds must be cleared prior to registration.
 - e. High school students must satisfy course prerequisites and eligibility requirements.
 - f. Enrollment in Exercise Science (Physical Education) classes will not be permitted.
 - g. The course is advanced scholastic or technical (college degree applicable).
 - h. The course is not available at the school of attendance.
 - i. Students will be given college credit for all courses. Grades will be part of the student’s permanent college record.
 - j. Students must maintain a 2.0 grade point average each semester in all college work.
 - k. If the number of units of W, I and NP reaches 50%, in any semester or session, the student will be academically dismissed. Students whose grade point average falls below a 2.0, or who do not complete more than 50% of all units attempted, will not be permitted to re-enroll without approval from a college counselor.
- Persons who are under 18 years of age who do not have a high school diploma and are not enrolled in a high school may be admitted as a special full-time student pursuant to Education Code §48800.5 subject to approval of the high school governing board and the college President where the student is planning to attend. Special full-time students will be admitted under provisional admission status.
 - Persons who do not meet one of the admission criteria stated above will not be admitted under any circumstances.

In accordance with §76038 of the California Education Code, students seeking admission who have been previously expelled from a California community college within the past five years, or who are currently in the process of a formal expulsion hearing for any offense listed in *AP 5010, Student Admission Status, 2.a.1-7*, are required to inform the

District. Admission eligibility shall be determined in accordance with *AP 5010, Student Admission Status*.

All new students must file an application for admission. Students who have previously attended, but have not been in continuous attendance for one year must file a new application for admission.

Apply Online

Applications for admission to San Diego City, Mesa, and Miramar Colleges are available online. Students access the online application at: <https://www.sdccd.edu/apply/>.

Social Security Number

Your Social Security Number (SSN) or Individual Tax Identification Number (ITIN) is required for Federal and State reporting, and for students applying for Financial Aid. It is maintained in a secure manner and WILL NOT be visible or released to third parties for identification purposes for any reason.

Section 483 and 484 of the Higher Education Act of 1965, as amended, also gives the Financial Aid Office the authority to collect your SSN. The U.S. Department of Education uses your Social Security Number to verify your identity and retrieve your records. Providing incorrect information may result in penalties from the IRS.

All students will be assigned a unique 10-digit Student Identification number upon successful submission of their application that will be required to conduct all college business.

Important Reminder

Every male citizen of the U.S. and male immigrant residing in the U.S., ages 18 through 25, must register with the Selective Service.

2. Apply for Financial Aid

To apply for financial aid applicants must complete the Free Application for Federal Student Aid (FAFSA), or a California Dream Act application for all financial aid, including the California College Promise Grant – CCPG. To complete your FAFSA, go to <https://studentaid.gov/>. To complete a California Dream Act application, go to <https://dream.csac.ca.gov>. FAFSA Application materials are available on October 1st for the following academic year. The priority filing deadline for aid is April 15th. Students filing their application by this date will be considered first in the award process. Deadline to apply: The

Central Processing System (CPS) must receive your application by your last day of classes for the term or June 30, 2023 whichever date comes first. The Deadline for Cal Grant application is March 2nd.

3. Orientation

The orientation provides important information to students about the programs and services available at the college as well as strategies for student success. Orientation includes program planning. Non-Exempt students who have been admitted to the college are expected to attend an assessment/ orientation session before registering for classes.

4. Placement

Placement is a process that is designed to assist students in determining which English or English Language Acquisition (ELAC) and math courses they should start with, specifically identifying milestones in each of these areas. Placement also helps students in meeting course prerequisites. Students may also meet course prerequisites based on other factors such as English or ELAC and math course completion or other standardized tests.

Placement via College Application

Students who have graduated from a U.S. high school will receive the placement levels based upon high school performance information that is provided on the application for admission. The college application (CCCApply) will identify English and math courses that students can enroll in using prior high school history. Students will report cumulative, unweighted high school GPA, courses completed, and grades received in English and math courses.

Placement via Placement Assistant

Students who have graduated from a U.S. high school more than 10 years ago, completed the GED, or HiSet exam are eligible for this assessment. The Placement Assistant will identify courses that students can enroll in using prior academic history. Students will report cumulative, unweighted high school GPA, courses completed, and grades received in English and math courses. Based on the information reported, students will receive an English and math placement milestone. Students who graduated from a foreign high school should contact the Assessment Center for guidance.

English Language Acquisition (ELAC) Assessment

The ELAC guided self-placement process is designed for students primarily educated outside of the United States in a language other than English. Students who have completed a United States high school diploma or equivalent shall receive English and Math placement milestones.

Students who feel they may benefit from taking an English Language Acquisition class (ELAC) before a college-level English class (ENGL) are asked to use the guided self-placement tool (<https://www.sdccd.edu/future-students/placement/elac/>). Students will receive an ELAC placement milestone of L19, 20, 30, or 40, to help determine which ELAC class students should enroll. Please contact your campus Assessment Center for guidance.

San Diego College of Continuing Education (SDCCE) students should use the SDCCE to College bridge as a guide to which ELAC and English courses they may be eligible to enroll in. They should then take the ELAC guided self-placement tool to receive an ELAC placement milestone.

Students who believe they have sufficient grounds may challenge a prerequisite, corequisite, or limitation on enrollment. A student may obtain a Petition to Challenge form at: <https://www.sdccd.edu/students/forms-and-documents.aspx>.

Continuing Education (CE) to College Bridge

CE Course/Course Completion Certificate	Enroll in College Course/Level Recommendation
ESLA 431 Beginning Literacy 1	
ESLA 432 Beginning Low 2	
ESLA 433 Beginning High 3	ELAC 15 or ELAC 23 and ELAC 25
ESLA 434 Intermediate Low 4	ELAC 23 and ELAC 25 or ELAC 33 and ELAC 35
ESLA 435 Intermediate High 5	ELAC 35 or ELAC 145
ESLA 436 Advanced Low 6	ELAC 145
ESLA 437 Advanced High 7	ENGL 101X (ENGL 101/31) or ENGL 105X (ENGL 105/31)

5. Educational Plan

An education plan is an important tool to assist students in successfully attaining their goals without wasted time and effort. Counseling and career planning services are available to help students make informed choices concerning the programs and courses available.

The education plan is an agreement which contains the official requirements for graduation and/or transfer. **All official transcripts of prior college work must be on file and evaluated before an official comprehensive education plan can be prepared. Transcripts from foreign institutions are not required.** See the **Graduation** section on page 114 for graduation filing requirements.

Education plans outline a suggested pathway for a student to take based on their major, transfer plans, or other pertinent objectives. These plans allow students to determine how long it will take to complete a program of study and to be sure that all program requirements can be met within a particular period of time. The student should review their education plan periodically with a counselor as goals or objectives change.

Career, interest, and aptitudes assessments are available for students who wish to explore other options or who are undecided on their educational goal.

6. Register and Pay

Students who submit an application before the application deadline will be able to register on or after their assigned enrollment date and time. Enrollment appointments are emailed and posted in the mySDCCD portal at <https://myportal.sdccd.edu/>. Students who submit an application after the deadline may register during open enrollment. Online Registration Steps and Tips can be found at <https://www.sdccd.edu/students/registration/index.aspx>. Students are responsible for ensuring that all fees, including the Health Fee (which is not covered by the California College Promise Grant – CCPG waiver) are paid in full by the deadline or they may be dropped for nonpayment. Pay online or in person at the Accounting Office.

7. Follow up with a counselor

Follow-up services are available to all students as part of the college’s commitment to student success.

These services include a periodic review of student progress and education plans to assist students in reaching their educational goal. Students who need additional support services will be referred to those services.

Exemptions

Students who meet the following criteria are exempt from components of the matriculation process:

1. Admission Application

- No exemptions

2. Apply for Financial Aid

- No exemptions

3. Orientation

- Students with the following educational goals:
 - Maintenance of a certificate or license, educational development, or completion of credits for high school diploma
 - Students who have an associate degree or higher
 - Students concurrently enrolled at a four-year college or university
 - Students concurrently enrolled in high school

4. Assessment

- Students with the following educational goals:
 - Maintenance of a certificate or license, educational development, or completion of credits for high school diploma
 - Students who have an associate degree or higher
 - Students concurrently enrolled at a four-year college
 - Students concurrently enrolled in high school

5. Educational Plan

- Students with the following educational goals:
 - Maintenance of a certificate or license, educational development, or completion of credits for high school diploma
 - Students who have an associate degree or higher

- Students concurrently enrolled at a four-year college
- Students concurrently enrolled in high school

6. Register and Pay

- No exemptions

7. Follow up with a counselor

- No exemptions

Registration

With the exception of Special-Admit High School students, all students receive a registration appointment. Students can enroll in classes on or after this date and time within the San Diego Community College District's online registration system, mySDCCD. Special Part-Time High School students must complete the Supplemental Application for High School Students online, instructions can be found here:

<https://www.sdccd.edu/students/new-students/high-school-students.aspx>

By using the online class schedule and the online registration system ([my.sdccd.edu](https://www.sdccd.edu)), a student can enroll in any available course offered at ECC, City, Mesa, or Miramar Colleges. Instructions for the class schedule and online registration are available on campus and online at: <https://www.sdccd.edu/students/class-search/search.html>.

The online services offered in [my.sdccd.edu](https://www.sdccd.edu) include:

- Enrollment – add, drop & withdraw from classes
- Student's current class schedule and waitlisted classes
- Pay fees and view payment records
- Enroll in a Payment Plan
- Purchase a parking permit or Bus Pass
- Purchase an Associated Students Membership
- Wait List activities – adding, dropping and view
- Wait List status
- Pass/No Pass grading options
- View Financial Aid
- View attendance hours for tracking classes

- View Milestones
- Academic deadlines and calendar

Note: You may only access one semester at a time.

The portal also grants access to:

- Grade information
- Academic history
- Petitions to graduate
- Ordering transcripts
- View 1098-T tax information

My Planner

Students now have access to **My Planner**, a tool to help you select classes from your education plan (academic requirements) and assign them to a specific term(s)/semester(s). Log into the mySDCCD Student Portal, under the My Classes banner, click on the **My Planner** link to get started. <http://myportal.sdccd.edu>

Audit Policy

Auditing courses is not permitted under any circumstances. Students must be officially enrolled in all classes which they attend.

Online Class Restrictions

In accordance with federal regulations City, Mesa, and Miramar colleges may not permit students residing outside of California to enroll in online classes without approval of the state where the student resides. Students residing in a non-approved state/territory are **not permitted** to enroll in online classes and will be dropped. Go to <https://www.sdccd.edu/docs/SSDept/SSDocs/OnlineStatesNotPermitted.pdf> for an up-to-date list of restricted states and territories.

Responsibility for Maintaining Accurate Registration

It is the **student's** obligation to add, drop, or withdraw from classes before the deadlines stated in the schedule of classes. This applies even if the student has never attended class. Any student who anticipates difficulty in paying fees should check with the Financial Aid Office about eligibility and sources of assistance. Registration may be canceled for nonpayment of fees.

Time/Schedule Conflicts

- Students may not register for classes with times that overlap (includes 10 minute passing period).
- Students may not enroll in two classes of the same subject and course number if the start and/or end date of one class overlaps with the other class.

Online Class Schedule

Up-to-date class schedule information and course descriptions for each college and CE campus are available online at <https://www.sdccd.edu/students/class-search/search.html>. A search engine allows students to search for classes by many factors including: academic subject, time and day, Instructor, or a keyword.

Adding Classes

Students may add classes online until the deadline date published in the schedule of classes. Students will not be allowed to add classes beyond the published deadline.

To add a class once the semester has begun, students must obtain a permission number from the instructor, then must process and pay for the added class online or in person at the Accounting Office, Room A-256.

Students are not officially enrolled until the permission number is processed through the online registration system and fees are paid in full. Permission number for Special Admit part-time high school and Joint Diploma students must submit an online form: Supplemental Application for High School Students at <https://www.sdccd.edu/students/new-students/high-school-students.aspx> and will be registered by the college Admissions Office prior to the add deadline.

If an instructor finds that a student has given his or her permission number to another student, the instructor should administratively drop the student who was not issued the permission number.

Class Attendance

Students who do not attend the first class meeting may be dropped by the instructor. Students, who cannot attend because of illness, religious observation, or a serious problem, should notify the instructor. Students who miss the first class meeting

and do not plan to attend must log-in online and drop the class to avoid receiving an “F” grade.

It is the student’s responsibility to drop by the published deadlines.

Drop/Withdrawal from Classes

Students may drop or withdraw from classes online until the published deadline dates. Deadline dates are available in mySDCCD under “My Classes”, click the ‘Class Nbr’ and select ‘Deadline Dates’, or find your class in the class schedule here: <http://classschedule.sdccd.edu/> and select the class ‘Dates’.

- It is the student’s responsibility to drop all classes in which he/she is no longer participating.
- Students who remain enrolled in a class beyond the published withdrawal deadline, as stated in the online class schedule, will receive an evaluative letter grade.
- Final grades may be affected by attendance as described in the class syllabus.

DROP—ending enrollment in a class prior to about the 20% point of class meetings. A drop is not recorded on the student’s academic record.

WITHDRAWAL—ending enrollment in a class between about the 20% point and up to about the 60% point of class meetings. A withdrawal is a permanent symbol on the student’s academic record and is included in progress probation and dismissal determination.

Administrative Drop

Registration may be administratively cancelled for the following reasons:

1. Failure to pay all mandatory fees in accordance with the fee payment schedule;
2. Using a permission number issued to another student;
3. Failure to meet the terms and conditions of a fee deferment or payment plan;
4. Failure to meet academic or progress standards;
5. Denial of a “Petition to Challenge a Prerequisite”;
6. Failure to meet a prerequisite or co-requisite Requirement;

7. Enrolling in an online course while residing in a state not approved by the Department of Education;
8. Students who do not show proof of immunizations before beginning lab hours at the Child Development Center.

Exclusion from Classes

A student may be excluded from class or the college whenever the student:

1. Exhibits behavior which interferes with the educational process. An instructor may remove a student from two class sessions for disruptive behavior. (Refer to BP 5500: Student Rights, Responsibilities, Campus Safety and Administrative Due Process); or
2. Is found to have a communicable disease which requires isolation pursuant to a directive from the County Department of Public Health.

Study Load Limit

The maximum study load for a semester is 20 academic units including Exercise Science activity units.

Students are reminded that each unit of credit is calculated to involve a total of at least three hours of classroom and outside time per week. Thus, a 20-unit study load represents a 60-hour work load each week. Students working full-time are advised NOT to attempt a full-time college program.

Twelve units of credit is considered a minimum full-time program during a semester; nine units is three-quarters time and six units, half-time.

The maximum study load for summer session is 12 academic units including Exercise Science activity units.

Six units of credit is considered a minimum full-time during the summer session; four units is three-quarters time, and three units, half time.

Note: Study load requirements may vary at each college for financial aid purposes. Inquire at your college Financial Aid Office for detailed information.

Basic Skills Unit Limit

Title 5, 55035 states: “...no student shall receive more than 30 semester units of credit for basic skills coursework.” Registration will be blocked prior

to students reaching this limit so that students can meet with a counselor to ensure that they are successful when this unit limit is met. Students with a verified learning disability are exempt from this limitation (contact the DSPS office for more information).

Priority Enrollment System

Consistent with state law and the goal of providing a fair and equitable registration system for all students, the San Diego Community College District has established the following priority system for assigning registration appointments.

Priority Groups

Group 1

- Active Military & Veterans who meet the eligibility criteria*, Current and Former Foster or Homeless Youth**, CalWorks, EOPS and DSPS students, Intercollegiate Athletes***, Apprenticeship Students****, Parents of children under the age of 18 (effective Spring 2024). Students who have **not** completed all three services: orientation, assessment, and have an education plan are placed at the end of this group.

Group 2

- Continuing Students who have completed orientation, assessment, and have an education plan (Abbreviated education plans only grant a student priority for 2 semesters.)
- Continuing CE Advantage Students

Group 3

- New & Returning Students who have completed orientation, assessment, and have an education plan (Abbreviated education plans only grant a student priority for 2 semesters.)

Group 4

- Continuing, New & Returning Students who have **not** completed all three services: orientation, assessment, and have an education plan.

Group 5

- Students with 100+ Units (Does NOT include Basic Skills units.)†

Group 6

- Students with a Baccalaureate Degree†

Group 7

- Students who are academically dismissed or dismissed for lack of progress or who have not yet returned to good academic standing†

Group 8

- Students concurrently enrolled in High School

Within each priority group above, students are prioritized according to cumulative units, including transfer units.

Range

- 50.0 – 72.0 units
- 30.0 – 49.9 units
- 15.0 – 29.9 units
- 00.0 – 14.9 units
- 72.1 – 89.9 units
- 90.0+ units

* Students who are Active Duty Military or Veterans, discharged within the past fifteen (15) years, may be eligible for up to 4 years of priority registration. Students should contact the Admissions Office located in Enrollment Services for additional information. A military ID card or DD214 will be required for verification.

** Current and Former Foster or Homeless Youth under 25 years of age may be eligible for priority registration. For information, contact the College Admissions Office located in Enrollment Services or Financial Aid offices.

*** Intercollegiate Athletes participating and registered on a team roster may be eligible for priority registration. For information, contact the College Athletic Department.

**** Students enrolled in a restricted apprenticeship program may be eligible for priority Registration. Contact the College Admissions Office or the department of the Apprenticeship Program.

† Active Military & Veterans, Current and Former Foster or Homeless Youth, Intercollegiate Athletes, Apprenticeship, Parents, CalWorks, DSPS & EOPS students will receive first priority within this group.

Change of Name, Mailing or Email Address

All students must report immediately any change of address to the college Admissions Office located in Enrollment Services or online at <https://myportal.sdccd.edu>. Failure to provide this information will result in delays in registration, and other important information sent by the college. Name changes must be supported with legal documentation and a picture ID and reported in person at the Admissions Office located in Enrollment Services.

Prerequisites, Corequisites, Limitations on Enrollment and Advisories

PLAN AHEAD! All prerequisites, corequisites, and limitations on enrollment stated in the course descriptions listed in this catalog will be strictly enforced at the time of registration. Students who do not meet the prerequisite requirements according to college records will not be permitted to register for the course. Students who believe they have met the prerequisite at another institution are strongly advised to have all transcripts of prior college work evaluated and on file well in advance of registration to minimize registration delays.

Note: Unofficial transcripts are accepted for prerequisite clearance.

Students should plan their schedules early and see a counselor for assistance.

PREREQUISITES are courses that must be completed with a “C” or better prior to registration in a specific course.

COREQUISITES are courses that are required to be taken the same semester as another course.

LIMITATIONS ON ENROLLMENT are other restrictions that are stated in the course description such as “not open to students with credit in...”

ADVISORIES are departmental recommendations to be completed prior to enrolling in the course.

Advisories do not prevent a student from enrolling, but are strongly encouraged by the department for a student’s academic success.

Challenge Procedures

Students who believe they have sufficient grounds may challenge a prerequisite, corequisite, or limitation on enrollment in a specific course (the student does not get units for a challenged class). A student may obtain a petition to Challenge online via the mySDCCD Support Desk and then selecting the Petition to Challenge form: <https://www.sdccd.edu/students/forms-and-documents.aspx>. The completed petition with supporting documentation must be filed in the Admissions Office AT LEAST 10 working days prior to the start of the primary term/semester. Contact the Admissions Office for additional information. For credit by examination, please refer to page 83.

Residency

Residency is determined when a student applies for admission to the College. The following paragraphs summarize the rules and regulations related to student residency for tuition purposes. Details are found in the CA Education Code, section 68000 and Title 5, sections 54000-54072.

Residency Status

Every person who is married or is age 18 or older and under no legal restriction may establish residence. Certain minors may also establish residence.

A California “resident” is a person who has resided in the state for more than one year prior to the residence determination date and shows “intent” to make the State of California their permanent residence.

An undocumented student is precluded from establishing residency. Restrictions also apply to some visas, please see the Admissions Office located in Enrollment Services.

The residence determination date is the day immediately preceding the first day of classes for each semester.

Factors Considered to Determine Residency

No one factor determines residency. The following factors are called “indices of intent.” They, along with a person’s presence in California, are among the factors considered in determining California residency:

- Filing California state and federal tax returns with W-2 form (required)
- Possessing a California driver’s license and a vehicle registered in California
- Voting in California
- Owning residential property in California for personal use
- Being licensed to practice a profession in California
- Having an active checking and/or savings account in a California bank
- Showing California on military records (Leave and Earnings Statement)
- Possessing a marriage license or a divorce decree issued in California
- Having paid nonresident tuition in another state

Exceptions to Residency Requirements

Several exceptions to the residency rules apply. They include, but are not limited to, the following:

- Active duty military personnel and their dependents stationed in California
- Active military and dependents previously stationed in California, who are currently enrolled, and subsequently receive orders to change their duty station to out-of-state
- A Veteran or dependent using or intending to use their GI Bill® benefits while currently living in California and has enrolled at San Diego City, Mesa or Miramar College. “GI Bill®” is a registered trademark of the U.S. Department of Veterans Affairs (VA). Information on the clause is located on the GI Bill Trademark form included in the application.

Nonresident Students

A student’s residency status is determined at the time of application. Nonresident students must pay nonresident tuition in addition to the enrollment fee and other fees for credit classes. Tuition must be paid in full at the time of registration.

Assembly Bill (AB) 540

Assembly Bill 540 exempts nonresident students who meet the following criteria, from paying nonresident tuition:

- have attended a California school full-time for three or more years.
- have received a high school diploma or equivalent, or an Associate Degree or fulfillment of transfer requirements for CSU/UC Institutions.
- have registered as an entering student at, or concurrent enrollment at an accredited institution of higher education in California.

Students who meet the criteria must file an affidavit with the college stating that he or she has filed an application to legalize his or her immigration status.

Incorrect Classification

A student incorrectly classified as a California resident is subject to reclassification as a nonresident and payment of all nonresident tuition. If incorrect classification results from false or misleading facts, a student may be excluded from classes or the college upon notification.

Reclassification

Reclassification to resident status must be requested by the student. Financial independence during the current year and preceding two years will be considered at the time the student requests reclassification. Information regarding requirements for reclassification is available in the Admissions Office located in Enrollment Services.

Tuition will not be refunded to a student classified as a nonresident due to lack of documentation if, at a later date, documentation is presented for a previous semester.

Appeals

To appeal a residency determination decision, a student may file a Residency Determination Appeal

form with the college Admissions and Records Supervisor.

Limitation of Residency Rules

Students are cautioned that this summary of rules regarding residency determination is by no means a complete explanation of their meaning or content.

For further information, contact the residency clerk in the Admissions Office located in Enrollment Services. Changes may have been made in the statutes and in the regulations since this catalog was published.

False Information

Providing false information necessary for establishing residency will result in disciplinary action up to and including dismissal from the college.

Contact the Admissions Office located in Enrollment Services for more details.

International Students

(F-1 Visa Students)

San Diego City College welcomes application from nonimmigrant F-1 visa students. Acceptance into a program at the college is necessary before U.S. Citizenship and Immigration Services Form I-20 (certificate of eligibility) is issued by the college Admissions Office located in Enrollment Services. The decision to grant an acceptance will be based on all evidence received prior to the deadlines. The application forms are available at: <http://sdcity.edu/students/international>.

General Information

1. An international student must register for and maintain a minimum of 12 units each semester while at City College. Part-time F-1 status will not be approved. The registration status and academic performance of all international students will be monitored by the college.
2. A recent photograph must be submitted with an application (passport size is acceptable).
3. Prospective international students are advised that they must comply with all requirements of

the U.S. Citizenship and Immigration Services and of San Diego City College to be admitted as international students.

4. Restriction on Aviation Program. The Federal government prohibits all F-visa (F-1 and F-2) students from enrolling in any Aviation Maintenance Technology (AVIM) and/or Aviation Operations (AVIA) classes and programs. No exceptions will be made. Student enrollment is monitored and students will be administratively dropped. The Transportation Security Administration (TSA) requires all students that are enrolled in AVIA 101L, 195L, or 196L to either provide documentation of their US citizenship OR complete a background check. For more information refer to <https://www.fts.tsa.dhs.gov/home>.
5. A transfer student from another accredited United States college or university must:
 - a. follow set transfer procedures of the U.S. Citizenship and Immigration Services; and
 - b. have pursued a full-time course of study with a minimum GPA of 2.0 ("C") at the college the student was last authorized to attend. (An official transcript must be filed.)

Admission Requirements

Admission for Fall Semester: Students must complete all admissions requirements no later than May 15 to be admitted for the fall semester. The processing of an application normally requires a minimum of three to five months. Students who meet the May 15 deadline will be notified as soon as possible of their admission status.

Admission for Spring Semester: Students must complete all admissions requirements no later than October 15 to be admitted for the Spring semester. Students who meet the October 15 deadline will be notified as soon as possible of their admission status.

Academic Achievement

1. An international student must have graduated from high school (or its equivalent) with a GPA of 2.0 ("C") or better, or have obtained a GED® certificate (General Education Development).
2. Official transcripts of all previous secondary and college/university education must be submitted, including an English translation of the transcript, before an application will be considered.

English Proficiency Requirements

To be considered for admission, an international student whose native language is not English must take an International Test of English as a Foreign Language (TOEFL) and score a minimum of 500 on the paper-based test, 173 on the computerized version, or 61 on the internet-based test. For questions regarding the TOEFL test, please visit the Educational Testing Service website at: www.ets.org/toefl/. Institutional reports or photocopies will not be accepted. Students may petition to waive the TOEFL requirement under one of the following conditions:

1. completion of a transfer level college English composition course at an accredited United States institution with a grade of "C" or higher;
2. completion of ELAC guided self-placement at L40 (ELAC 145); in addition, the student must take the prescribed course work at the level of assessment; or
3. a minimum SAT verbal score of 450.

Advanced Degrees: An international student in possession of an associate degree or its equivalent, or higher (completion of about 60 semester units) may be determined to be beyond the course offerings of City college and is encouraged to apply to a four-year college or university.

Financial Resources

1. Each international student must submit verification of sufficient financial resources. The verification must indicate the ability of the student to finance each year's education and living expenses. Minimum of \$31,654 required for one school year (two semesters).
2. An international student attending the college must pay all mandatory fees, including nonresident tuition, enrollment fees, and health services fees.
3. Financial aid is not available to international students.
4. An international student may not accept off-campus employment while attending college unless approval is granted by the U.S. Citizenship and Immigration Services and the International Student Advisor.

Health Clearance

1. Students must be in good health and free of communicable diseases. The "Report of Health Examination" form or a medical examination report by a physician must be submitted prior to admission. The medical examination must certify immunization against polio, diphtheria, measles, rubella, and tetanus, and must provide tuberculosis clearance.
2. **Mandatory Health Insurance:** Each student is required to provide a notarized letter (in English) certifying that he/she has secured a health insurance coverage in the United States for the duration of their studies.

Housing

The college is located near public transportation and housing. The college does not provide or assist with housing. Housing is the responsibility of the student.

Visa Students (other than F-1)

All other visa categories or immigrant classifications, other than F-1, must see the Admissions Office located in Enrollment Services.

Students who are residing in the United States on other than F-1 student visas must comply with all restrictions on total units enrolled as specified by the U.S. Citizenship and Immigration Services. Students who have additional questions may contact the International Student Admissions Office at the following address:

International Student Admissions Office A-241
619-388-3476 – Office
San Diego City College
1313 Park Blvd.
San Diego, CA 92101

Fees

Community College Enrollment Fee

The **enrollment fee** is assessed of all students, including nonresidents. The fee is currently \$46.00 per unit. Enrollment fees subject to change.

- Waiver of the enrollment fee is available to students who petition and qualify as recipients of benefits under the Temporary Assistance to Needy Families (TANF) program, the Supplemental Security Income/State

Supplementary (SSI) program, or the General Assistance program.

- Indentured apprentices are exempt from enrollment fees for Apprenticeship Program classes only.
- Financial Aid may be available to students who qualify for assistance.

Health Services Fee

All students are assessed a mandatory fee for health services and accident insurance, whether or not they choose to use the health services available to them. The health services fee is currently \$21.00 per semester for Fall and Spring semesters, and \$17.00 for the Summer session. The following students are exempt from the health fee:

- Students who meet the income standards for the California College Promise Grant – **CCPG-A Only**. Contact the Financial Aid Office for eligibility determination.
- Students attending under an approved apprenticeship program, enrolled only in apprenticeship courses.
- Students who depend on prayer for healing, in accordance with the teachings of a bona fide religious sect, denomination, or organization, may petition to have the fees waived.

For more information, contact the Admissions Office located in Enrollment Services.

Nonresident Tuition

In addition to the enrollment fee and health fee, tuition is charged to students who are not residents of California for tuition purposes. The 2024–2025 nonresident tuition fee is \$356.00 per unit.

Library

Overdue fines and fees apply to late and lost library materials.

Baccalaureate Degree Program Fee

A baccalaureate degree program fee will be charged for all upper division coursework. The fee is \$84.00 per unit and will be assessed in addition to the \$46.00 per unit enrollment fee. Nonresident students in upper division coursework will be charged the \$84.00 per unit in addition to the \$46.00 enrollment

fee, and the nonresident tuition fee of \$356.00 per unit.

Additional Fees

Automobile permits per semester (Fall and Spring)	\$40.00
Automobile permits per semester (Summer) ...	\$29.00
Carpool permits per semester	\$30.00
Motorcycle permits per semester	\$17.50
Transcript of Record	\$5.00
(after two have been issued free of charge)	
Loss or damage of equipment and books.....	cost
A.S. College Membership (per academic year)...	\$8.00
Student Representation Fee	\$2.00

Note: *Students receiving public assistance, or who are determined eligible for financial aid, may purchase a single car permit for \$25.*

All fees are subject to change.

Students are expected to buy all books and supplies needed for their courses. Certain occupational programs may require additional expenditures for tools and uniforms.

Student Representation Fee: All students attending classes are required to pay a \$2.00 student representation fee per semester. This fee is expended equally to support the: (1) Student Senate of California Community Colleges (SSCCC), and (2) colleges for the purpose of student advocacy efforts to Federal, State and Local governments. Students have the right to refuse to pay the fee for religious, moral, political, or financial reasons.

Returned Check Fee: A \$25.00 fee will be assessed for any returned checks.

Debt Owed to the College

In alignment with Assembly bill 1313 (Chaptered October, 2019) and California Education Code 66022 and 76225, diplomas, and registration privileges, or any combination thereof, may be withheld from any student or former student who has been provided with written notice that he or she has failed to pay a proper financial obligation. Any item(s) withheld shall be released when the student satisfactorily meets the financial obligation. A service fee may be charged for all delinquent loans; any service fee would be determined by the total cost required to collect the delinquent loans.

Refunds

1. Fees will be refunded to students who reduce their program in accordance with the following schedule:
 - Refunds for Fall and Spring Primary (16 Week Session) is Friday of the second week
 - Refund deadlines for all other classes are located in the class search under the calendar icon ("refund deadlines")
 - Refund deadlines are also located for a specific term at <https://www.sdccd.edu/students/dates-and-deadlines/> under "Dates and Deadlines"
 - No refund is given for classes dropped after the published deadline.
2. Students who are administratively dropped when a Petition to Challenge is denied will receive a full refund of the class(es) petitioned.
3. Students who are academically dismissed and administratively dropped will receive a full refund.

No refund is given for classes dropped after the deadline.
4. In order to receive a refund, **parking permits** must be returned to College Police or the Accounting Office within the refund deadlines described in #1.

Students with a valid address on file and who do not have an outstanding financial obligation to the district will receive a refund in the mail or credit to their credit card. Refunds will be sent to students after the add/drop deadline. For payments by check, there is a five week waiting period for checks to clear the bank before refunds will be processed. For more information contact the Accounting Office on campus.

NOTE: Students who drop all classes and wish to receive a refund must also submit their parking permit before the refund will be granted. If the permit is not returned within the two-week refund period, the student will not receive a refund for the permit.

Student Services

At-A-Glance

Page

Athletics.....	32
CalWORKs/Believe Program Training, Education and Service.....	32
Campus Store.....	32
City Scholars Program.....	32
Counseling Services	33
Digital Journalism	33
disAbility Support Programs and Services (DSPS)	34
Early Education Center	34
English Language Acquisition (ELAC).....	35
Evaluations	35
Extended Opportunity Programs and Services (EOPS)	35
Financial Aid.....	37
Scholarships	40
HUBU.....	42
Learning Resource Center (LRC) / Library.....	42
Mental Health Counseling	43
MESA Program.....	43
Outreach.....	44
Performing Arts.....	44
Puente Project	44
San Diego Promise Program.....	45
Student Accounting	45
Student Affairs/Campus Life	45
Student Health Center.....	46
Support Services.....	46
Transfer/Career Center	47
Tutorial Services.....	48
Umoja	49
Veterans and Service Members.....	49
Welcome Center	51
Work Experience Program.....	51

Athletics

P3-200

619-388-3486

San Diego City College is a member of the Pacific Coast Athletic Conference for the following sports: men's and women's soccer, men's and women's cross country, men's and women's basketball, softball, men's and women's tennis, baseball, women's volleyball, women's beach volleyball, and women's badminton.

The Pacific Coast Athletic Conference includes the following colleges: Cuyamaca, Grossmont, Imperial Valley, MiraCosta, Palomar, San Diego Miramar, San Diego Mesa, and Southwestern.

Students must meet academic requirements established by the California Community College Athletic Association and pass a physical examination before they are determined to be eligible to participate in Intercollegiate Athletics. Academic eligibility includes enrollment as a full-time student during the season of the sport, an educational plan on file in the first semester of competition and a minimum 2.0 grade point average by their sophomore season of play. For more information, contact the Athletic Office.

Exercise Science Classes/ Intercollegiate Sports Disclaimer

Participation in all sports and Exercise Science activities involves certain inherent risks.

Risks may include, but are not limited to, neck and spinal injuries that may result in paralysis or brain injury, injury to bones, joints, ligaments, muscles, tendons and other aspects of the muscular skeleton system; and serious injury, or impairment, to other aspects of the body and general health, including death. The San Diego Community College District, its officers, agents and employees are not responsible for the inherent risks associated with participation in Exercise Science classes/intercollegiate sports.

Students are strongly advised to consult a physician prior to participating in any Exercise Science activity.

CalWORKs/Believe Program

L-121

619-388-3797

The CalWORKs Program offers support services to students who receive CalWORKs funding. Specialized services have been designed to support students in their education, career and personal goals while meeting their welfare to work requirements. Services include academic/vocational counseling, job placement, workshops, work study placement and verification of welfare to work hours. For more information, contact the CalWORKs office in the Academic Success Center or visit our website: www.sdcc.edu/students/services/CalWORKs/.

Campus Store

D-104

619-388-3548

citybook@sdccd.edu

San Diego City College Campus Store provides digital materials and textbooks and supplies required for classes. Rental books are also available. The Campus Store provides study aids, snacks, school supplies, clothing, backpacks, gift items, greeting cards, emblematic items and general books. The Campus Store also buys back textbooks for cash.

Extended hours are offered at the beginning of each semester. Textbooks can also be purchased online at: www.bookstore.sdccd.edu/city. For additional information or special Campus Store hours, please contact the Campus Store or visit our website listed above.

City Scholars Program

A-366

619-388-3675

The City Scholars Program at San Diego City College is designed to help justice system impacted students transition to college. The program provides formerly incarcerated students with matriculation support, personal growth courses, and academic advisement. It is under the supervision of the Dean of Student Development and Matriculation. City Scholar

participants are assigned a counselor, meet monthly with a peer advocate, attend campus events, and participate in relevant workshops to enhance their personal development. The goal of the program is to ensure that students who are justice system impacted are given the support they need to achieve their academic goals.

Program Components:

- Orientation
- Counseling
- Academic/Cultural Enrichment Activities
- Mentoring

If you are interested in joining the City Scholars program, please visit Andre Jones in the Counseling Department.

Counseling Services

Counseling Department

A-366

619-388-3540

Counselors offer a variety of counseling services to students in order to assist and facilitate both personal, career, and academic student growth. The following services are provided to new, continuing, transfer, and returning students.

www.sdcity.edu/counseling

Academic Counseling—Students are encouraged to speak with counselors regarding any academic planning issues which may arise during their time at San Diego City College. Counselors will assist with identifying academic goals and developing computer generated student education plans through a scheduled appointment.

Career Counseling—Counselors offer guidance to those students who are uncertain of their career path. Students are encouraged to explore career possibilities through the guidance of career counselors, use of research materials and career assessment inventories.

Personal Counseling—Students can also receive personal counseling from the Counseling Department. Counselors will provide support to those students with issues arising from managing the stress of school life and personal life. Personal counseling sessions will be kept confidential.

Walk-in Counseling—A 5–15 minute session is available through the academic year to students with quick questions. Students may walk into the Counseling Department and speak with a counselor on a first come, first-serve basis.

Counseling Appointments—Counseling appointments are available to help students with career, educational, transfer planning, and to discuss personal issues related to academic goals.

Transfer Counseling—Through scheduled appointments students will learn how to successfully transfer to a four-year university. They will receive assistance in researching and choosing the right university based on their individual needs.

College Success/Career Planning—Courses are offered in Personal Growth listed in the schedule of classes.

Note: If the student’s educational objective is to receive an Associate Degree or to satisfy transfer requirements to a four-year college or university, the student must send all official transcripts to the District. If the student’s educational objective is only to receive a Certificate of Achievement and all certificate coursework is completed at City, Mesa, and/or Miramar College, full transcript evaluations are not required and will be automatically waived. If courses are being used from another college outside of the district, only transcripts from that institution must be submitted for evaluation.

City Times Media, Student Journalism

College Newspaper and Digital News Site

The award-winning college student newspaper and digital news site, City Times, provides students the opportunity for class workshops and hands-on experience in multimedia news writing, reporting, editing, and production of a wide range of digital and print content. Alumni from the program work in professional journalism organizations in San Diego and beyond as reporters, editors and producers. CT is one of the partners of the City Times Media platform, which can be found at sdcitytimes.com and @sdcitytimes on social media. For degree and course information, see pages 217 and 405. For more information, email CTM Student Media Adviser

Nicole Vargas at nvargas@sdccd.edu For degree and course information, see pages 218 and 471. Call the program at 619-388-3880.

Legend Magazine

City College's Digital Journalism program is the only one of its kind in the district that offers a magazine production lab. DJRN 220 is a unique opportunity to experience the process of producing a magazine, start to finish, for the campus and surrounding community. Taking DJRN 220 is a great opportunity to develop published work that you can share as you begin your media career.

CityWorks

CityWorks is San Diego City College's creative arts annual anthology which features artwork, poetry and prose from students and the community. Each October, the staff seek artists, writers, poets, journalists, editors, graphic designers, photographers, and other creative people to seek submissions for the issue, which is published each spring. For more information, call 619-388-3522.

disAbility Support Programs and Services (DSPS)

A-122

619-388-3513

tty 619-388-3313

www.sdcc.edu/students/services/dsps

City College provides academic accommodations and services for students with disabilities in compliance with State and Federal legislation including Section 504 and 508 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act Amendments Act (ADAAA).

Eligible students who have a **verified** disability qualify for academic accommodations and services through the disAbility Support Programs and Services (DSPS) department. Student participation in the DSPS program is voluntary. Academic accommodations and services are designed to support students enrolled in on-campus, online, and clinical setting courses in the achievement of their academic and vocational goals.

Educational Assistance classes for students with disabilities may be available to support the college academic and vocational programs through DSPS and the High Tech Center. Academic accommodations provided **may** include, **but are not limited to:** priority enrollment, assistive technology and alternate media, interpreters and captioning for students who are deaf or hard of hearing, note taking materials, test taking accommodations, audio recorders, use of specialized equipment and adaptive devices, and disability related counseling and referral.

Liaison with community agencies is also an important component of the program. Students are encouraged to apply early for timely services.

Service Animals

The San Diego Community College District will permit qualified students with disabilities to use service animals in district facilities and on district campuses (Procedure 3105.2) in compliance with state and federal law.

Animals are not permitted on campus with the exception of service animals for persons with disabilities. Refer to Administrative Procedure (AP 3105.2) *Service Animals*.

Early Education Center

The Early Education Center is the college instructional lab for child observations, the study of child development, and early education practicums. The Center provides state-funded child-care services demonstrating high quality interactions, curriculum, and environments to meet the needs of the whole child. Families with children between 4 months and 5 years of age may apply for services. Eligibility and sliding scale fees are determined by state regulations. Please call 619-388-3205 or visit <https://www.sdcc.edu/students/services/child-development/index.aspx> for more information. The Center is located at the north-east corner of campus at 16th Street and Russ Blvd. The infant toddler program license number is 376701496. The preschool license number is 376701495.

English Language Acquisition (ELAC)

The English Language Acquisition (ELAC) program is committed to supporting non-native speakers of English in developing their academic English language skills to enable them to succeed in college courses. We offer a range of courses designed to engage students from low-intermediate to advanced levels of English. Core courses consist of integrated academic reading, writing, and grammar as well as academic listening and speaking. Specialized courses in areas such as pronunciation and focused grammar are also offered to support the individual needs of each student.

The ELAC program consists of four levels. Students are placed at a level based on a guided self-placement tool.

For more information on the English Language Acquisition Program, students should contact the college Counseling Department.

Evaluations

A-301

619-388-3466

The San Diego City College Evaluations Department provides services, including information and technical support, to help students achieve their certificate, degree, and transfer goals. Working closely with students, City Evaluations supports in processing the following requests:

- Academic Renewal with Course Repetition
- Academic Renewal without Course Repetition
- Application for Graduation
- Certificate of Performance
- Credit for Prior Learning
- Modification of Graduation Requirements
- Petition for Exception to Course Repetition Policy
- Petition for Approval of Major-Area Electives
- Request for General Education Certifications
- Request to Reissue Diploma

We have transitioned to a new online submission process. Forms can be submitted electronically

at <https://www.sdccd.edu/students/forms-and-documents.aspx>.

Extended Opportunity Programs and Services (EOPS)

A-354

619-388-3209

What is EOPS?

EOPS is a state-funded program. The purpose of the program is to increase the access, academic achievement, retention and overall personal success for economically and educationally disadvantaged students by providing a supportive, student-centered environment. Our program is committed to enhancing the students' educational experience by empowering them to define and pursue their academic, career and personal goals. The services offered are "over and above" those offered by the college's Student Services division. The primary services include assistance in the following areas: priority enrollment, counseling and preparation for transition to four-year universities or the workplace. Services may also include book grants and other financial assistance, depending on funding. For detailed information on all services offered and application procedures, please contact the EOPS Office.

EOPS students who are single head of household and receiving CalWorks for themselves and/or their children are encouraged to apply for the program's Cooperative Agencies Resources for Education (CARE) component. CARE provides additional counseling support services including specialized workshops, meal cards, gas cards, emergency bus passes, and supplies to address those needs that are unique to single parents.

Students that are formerly incarcerated may receive service in the EOPS office. For detailed information on all services offered and application procedures, please contact the EOPS Office or visit our website: www.sdccity.edu/students/services/eops/.

Eligibility

Students may be eligible to receive EOPS services if they meet all of the following criteria:

1. Must be a California resident or AB540
2. Must be enrolled in 12 units or more
3. Must be eligible to receive the California College Promise Grant A or B at City College
4. Have less than 70 degree applicable units

Additionally, students must meet one of the following criteria:

- Currently or previously enrolled in a developmental level course
- No high school Diploma/GED or are a high school graduate with overall GPA below 2.5
- Are the first one in your family to attend college
- Are an emancipated foster youth
- English is/was not the primary Language spoken at home
- Belong to a group that is part of City College's student equity goals

Services for Homeless Students under age of 25

San Diego City, Mesa and Miramar Colleges are committed to ensuring that all students have a fair and equal opportunity to obtain a high-quality education and complete their educational goals. As part of this commitment, the colleges provide referral services for homeless youth through the Extended Opportunity Programs and Services (EOPS) office. Effective Spring 2017, the following services will be provided:

- Access to shower facilities on-campus during designated hours
- Referrals to student support services including financial aid, CalWORKs, DSPS, food pantries, and mental health services
- Referrals to outside agencies that support homeless shelters, housing referrals, etc. as needed
- Priority Registration, if eligible, starting Summer 2017 registration (requires submission of FAFSA or California College Promise Grant – CCPG application and verification of status)

Students that are homeless, formerly homeless or at-risk are encouraged to visit your college's EOPS office for more information.

Cooperative Agencies Resources for Education (CARE)

EOPS students who are single, head of household, parent or legal guardian of at least one child under the age of 18 and receive CalWORKs cash aid are encouraged to apply for the programs Cooperative Agencies Resources for Education (CARE) component. CARE provides additional support services to address those needs that are unique to single parents.

How to Apply

Students interested in applying for the EOPS program must complete an EOPS application and the Free Application for Federal Student Aid (FAFSA). These applications are available in the EOPS Office and the FAFSA is available online at: <https://studentaid.gov/>. Students should apply early to ensure that they receive consideration for all services. It is recommended that students complete the FAFSA by the priority filing date published by the Financial Aid Office.

The NextUp Program

NextUp is a supplemental component of EOPS. It provides resources and services to students who have experienced foster care. Services may include counseling, books and supplies, grants, childcare and transportation assistance, financial literacy and independent living skills support, and housing assistance. Students must meet eligibility requirements for EOPS, be under the age of 26, and in foster care on or after their 13th birthday.

Summer Readiness Program (SRP)

SRP is a summer orientation for first-time college students. Participating students attend classes four days each week for eight weeks. The course work includes material designed to develop and enhance college survival skills. In addition to the course work, a full complement of EOPS services is provided.

Applications are usually available in early January and accepted until the end of the first week of May. Interested applicants should contact the EOPS Office for details.

Financial Aid

A-270

619-388-3501

The Financial Aid Office is committed to assisting students who might otherwise be unable to continue their education because of financial disadvantage.

Financial Aid funds are administered in accordance with a nationally established policy of financial assistance for education. The basis of this policy is the belief that students and their parents have the primary responsibility for meeting educational costs. The amount of the contribution expected from students and their family is determined by careful analysis of family financial strength taking into consideration net income, number of dependents, allowable expenses, indebtedness, and assets. The U.S. Department of Education, in cooperation with Congress and educational agencies, has established procedures which are used in making an evaluation of the amount families can be expected to contribute.

Application

On a yearly basis, all financial aid applicants must complete the Free Application for Federal Student Aid (FAFSA), or a California Dream Act application for all financial aid, including the California College Promise Grant – CCPG. To complete your FAFSA, go to <https://studentaid.gov>. To complete a California Dream Act application, go to <https://dream.csac.ca.gov>. FAFSA Application materials are available on October 1st for the following academic year. The priority filing deadline for aid is April 15th. Students filing their application by this date will be considered first in the award process. Deadline to apply: The Central Processing System (CPS) must receive your application by your last day of classes for the term or June 30, 2023 whichever date comes first. The deadline for Cal Grant application is March 2nd.

A current Admission's Application to the College must be on file before we can process your FAFSA application. Complete the application using your personal information as it appears on your Social Security card or our office will not be able to process your financial aid application.

Academic transcripts from prior colleges attended are not required to be submitted before processing a

financial aid application. Academic transcripts must be submitted directly to the District Records Office.

All inquiries such as disbursement of funds, document submission, appeals, etc., MUST be made on or before the deadline date. After the close of the academic year, we will no longer be able to process any financial aid application or disbursements.

Eligibility

In order to be eligible to apply for financial aid, a student must be a citizen or permanent resident of the United States or be in the country for other than a temporary purpose with the intention of becoming a permanent resident.

Eligible non-citizens may be required to provide proof of permanent residency for Federal Aid. F-1, M5, R1, or R2 Visa students are not eligible for financial aid at San Diego City College. For further information regarding other eligible immigration statuses, contact the Financial Aid Office.

Students must have a high school diploma, GED or equivalent in order to apply and qualify for Financial Aid. Contact the Financial Aid office for additional information.

Awards

Awards take the form of a "package" of financial aid, usually consisting of grant money and work-study, depending on the financial need of the applicant and availability of funds. Awards may be adjusted at any time upon notice of receipt of resources not previously reported or a change in enrollment status. Revisions to awards may be possible because personal financial circumstances are so unpredictable. If funding is available, aid for valid educational expenses not already covered in the student cost budget may be increased.

Financial aid checks are usually ready for disbursement approximately four or five weeks after the start of classes. Pell Grant and Cal Grant disbursements are based on enrollment levels at the time of payment and will not be adjusted. However, SEOG and loan payments will be adjusted according to enrollment status. If you withdraw from classes after aid has been disbursed to you, you may be required to repay all or part of this aid. (see "Return of Title IV Funds" below)

An automated system is available in the college bookstores to allow California Resident students,

who are enrolled in at least six units, to use a portion of their estimated Pell Grant to purchase books and supplies one week prior, and two weeks after the start of the semester. Funds will be set aside from each eligible student's Pell Grant or Cal Grant C, and placed in a special account in the bookstore. This account may be used for the purchase of books and supplies until the funds are exhausted or by the end of the bookstore window, whichever comes first. The account is valid at the City, Mesa, and Miramar College, and ECC bookstores, regardless of where students are taking classes.

The student will be responsible for paying back the Bookstore the Pell Grant used if the student does not attend classes or, if the student loses eligibility at any time after being offered the award.

Students who elect not to purchase books from the college bookstore, or have any funds remaining on account, will receive the funds in the mail or by direct deposit with the remainder of their Pell Grant award according to the Pell Grant payment schedule for the semester.

Students must be making satisfactory academic progress as determined by the Standards of Satisfactory Academic Progress for Financial Aid Recipients. Copies are available in the Financial Aid Office.

Return of Title IV Funds

Federal law requires that if a student receives a Federal grant and then drops/withdraws from all his/her classes, he/she may owe money back to the Federal Government.

Note that the earlier a student drops/withdraws, the more money he/she may have to pay back.

- If a student receives LOAN money and withdraws, he/she may pay back the money according to the normal rules of the loan program.
- If a student receives WORK STUDY money and withdraws, he/she does not owe anything back and may keep the salary earned, but must stop working immediately.

For more information, contact the Financial Aid Office.

Financial Aid Programs Available

Following is a basic description of the programs available. Contact the Financial Aid Office for

detailed descriptions and eligibility requirements, or visit our website.

Enrollment Fee Assistance: California College Promise Grant – CCPG

State law requires that students attending the college pay an enrollment fee. Students enrolled in credit classes are currently required to pay \$46.00 per unit.

The college offers the California College Promise Grant (CCPG), a state-funded program which will waive the enrollment fee for all eligible applicants. **Students who are eligible for a California College Promise Grant (CCPG) will be required to pay the health fee.** The health fee will no longer be waived for students who are eligible for a CCPG other than students who are eligible for a CCPGA (TANF/CalWorks, SSI/SSP, or General Assistance).

Students may apply for the CCPG one of two ways:

- Submit a FAFSA (<https://studentaid.gov/h/apply-for-aid/fafsa>) or a California Dream Act Application (<https://dream.csac.ca.gov/>), or
- Apply for the CCPG online, please visit <http://www.sdccd.edu/students/financial-aid-scholarship/> for more information. Apply via: <https://www.openccapply.net/gateway/apply?cccMisCode=071>

If you are a California resident or have been designated an AB-540 student, you may qualify for a CCPG if any **one** of the following statements applies to your current status:

- You have already qualified for financial aid, such as a Federal Pell Grant or a Cal Grant, which demonstrates that you have need as determined by Federal Methodology or California DREAM Act application. You must have at least \$1,104 on "unmet" need to qualify.
- You, or your parents in the case of a dependent student, are receiving TANF (Temporary Aid for Needy Families), SSI (Supplemental Security Income), or General Assistance/General Relief as main source of income at the time of enrollment.
- You have a letter from the Department of Veterans Affairs certifying that you meet the eligibility requirements of "certain disabled

veterans, dependents of certain deceased or disabled veterans.”

- You are a dependent of a deceased or disabled veteran of the California National Guard. You must submit a letter of certification from the California National Guard Adjutant General’s Office.
- You are a recipient of the Congressional Medal of Honor or a child of a recipient. You must submit documentation from the Department of Veterans Affairs.
- You are a dependent of a victim of the September 11, 2001, terrorist attack. Must submit documentation from the CA Victim Compensation and Government Claims Board.
- You are dependent of a deceased law enforcement/fire suppression personnel killed in the line of duty. You must submit documentation from the public agency employer of record.
- You have been exonerated of a crime by writ of habeas corpus or pardon. You must submit documentation from the Department of Corrections and Rehabilitation.
- You meet the following income standards:

Number In Household (including yourself)	Total Family Income for 2022 (adjusted gross income and/or untaxed income)
1	\$20,385.00 or less
2	\$27,465.00 or less
3	\$34,545.00 or less
4	\$41,625.00 or less
5	\$48,705.00 or less
6	\$55,785.00 or less
7	\$62,865.00 or less
8	\$69,945.00 or less

Each Additional Family Member \$7,080

To determine your eligibility for the California College Promise Grant based on the above income standards, you will be considered independent if:

- You do not live with your parents or your parent’s registered domestic partner.

- You were not claimed as an exemption on any federal income tax filed by your parents or your parent’s registered domestic partner in 2020.

New State regulations have changed eligibility requirements for the California College Promise Grant – CCPG. Starting Fall 2016, in addition to income and residency requirements, students must maintain academic and progress standards to maintain California College Promise Grant (CCPG) eligibility.

These income standards are for the 2023–2024 academic year and are used to determine California Promise Grant Part B eligibility EFFECTIVE July 1, 2023.

Appeal Process for Loss of CCPG

Students will maintain their CCPG eligibility as long as they are in good academic standing. Students who believe their recent academic performance is based on circumstances outside their control, or believe they have made substantial academic improvement, may appeal the loss of CCPG eligibility by submitting a Loss of CCPG/Enrollment Priority Petition to the Dean of Student Development five (5) business days prior to the Application and Registration Deadline posted on the Academic Calendar. Petitions will be reviewed in the order they are received by the Dean of Student Matriculation.

Federal Pell Grant

The Federal Pell Grant is the largest federal grant program and is the foundation of a student’s total “aid package.” Eligibility is determined by the federal government using a standard formula for all applicants.

Effective July 1st, 2012, all financial aid applicants are subject to 6 years maximum of Pell Grant lifetime eligibility or 600%.

Enrollment status will be frozen at the time of disbursement after the add/drop period and will be the basis for Pell award. Once the Pell Grant award has been processed it will not be adjusted for additional units added during the semester. If you have a bachelor’s degree, you are not eligible for a Pell Grant.

Federal Supplemental Educational Opportunity Grant (FSEOG)

FSEOG is a federal grant program designed to assist students who have the greatest demonstrated

financial need. Awarding of FSEOG funds is determined by the Financial Aid Office based on available resources. If you have a bachelor's degree you are not eligible for FSEOG.

Cal Grants

The Cal Grant program is administered by the California Student Aid Commission to help low-income students attend college. Students at the college may receive Cal Grant A (SWD), B, or C.

- To be eligible for Cal Grant B a student must be a California resident, or an eligible AB-540 designated student and pursuing an undergraduate academic program of not less than one academic year.
- Cal Grant C is designed for students enrolled in a vocational program who are California residents or eligible AB-540 designated students from a low or middle-income family.
- Additional Cal Grant Access Funds for Students With Dependents (SWD), Independent Students with dependent children under 18 years of age by July 1st of the award year (start of the financial aid award year), and for whom the student will provide more than half of their support between July 1st and June 30th of the award year may be eligible for the following: Cal Grant Access awards up to \$6,000 for qualifying Cal Grant A and B recipients and up to \$4,000 for eligible Cal Grant C recipients. Actual award will be based on remaining unmet need.
- See the Financial Aid Bulletin for important dates and deadlines.
- Cal Grant Program is not available for students accepted into the Comprehensive Transitional Program (CTP).
- If you have a bachelor's degree, you are not eligible for a Cal Grant.

Chafee Grant Program

The Chafee Grant is a federal program that is administered by the California Student Aid Commission to provide financial assistance to prior Foster Youth. The applicant must be certified by the State Department of Social Services of their Foster Youth status prior to reaching age 16. The grant has no citizenship requirement; however, non-citizens without a valid Social Security Number must call the CSAC for additional steps and information. The

program awards a maximum of \$5,000 per academic year. Renewal applicants must maintain satisfactory academic progress as defined by the school.

Student Success Completion Grant

Prerequisite: Be a full time Cal Grant recipient

- The SSCG is a California Community Colleges financial aid program designated for Cal Grant B and Cal Grant C recipients who are carrying an academic load of at least full time (12 units or more) by the semester financial aid enrollment freeze/census date. The purpose of the SSCG grant is to provide eligible students with additional financial aid to help offset the total cost of community college attendance, to encourage full-time attendance, and assist in the successful on-time completion of the student's degree objective. Due to limited funding, the awards are made on a first-come-first-served basis. In order to be eligible for this grant, the student must be registered in ALL planned units for the semester by the published census/freeze date. The grant pays up to \$4000 annually based on the number of units: if the student's enrollment is between 12 – 14.99 units, the award is \$1,298 for the semester; if the student's enrollment is 15 units or more, the award \$4,000 for the semester. Eligibility is determined every semester after the financial aid census/freeze date and based on available funds.

Federal Work Study

Federal Work Study (FWS) allows students the opportunity to earn part of their financial aid by working in assigned jobs, both on and off campus. The salary received is at least equal to the current minimum wage, but many Federal Work Study jobs pay more than minimum wage. Federal Work Study differs from the other financial aid programs in that a student is allocated a certain amount of money to earn. As work on the job is completed, a time card is submitted for the hours worked just as at a regular job. Once a month the student receives a paycheck for the hours worked. Once the amount allocated in the financial aid package is earned, the job ends.

Scholarships

Students are encouraged to apply for scholarships, which are available for students who meet the qualifications. These awards are donated by individual contributors, clubs and organizations both on campus and in the community. Amounts are determined by the donors and vary. Qualifying

criteria may include that the student meet financial needs, a designated grade point average or other requirements to be eligible for consideration. For more information, visit <https://www.sdccity.edu/students/scholarships/index.aspx>.

Student Loans

Applicants for student loans will be subject to college policy requirements regarding enrollment status, length of attendance, the number of units completed, and the total amount of previous loans. Student Loans are not available for students accepted into the comprehensive Transitional Program C2C. Student Loans are not auto-awarded to any student.

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Student loans are not auto-awarded to any student.

Contact the Financial Aid Office for other requirements.

William D. Ford Federal Direct Loan Program

The Federal Direct Loan is a federal loan program where you borrow directly from the Federal Government. The interest rate for new loans is a fixed rate which is currently 3.73% for loans disbursed from July 1, 2021 to June 30, 2022. You are required to pay the Department of Education loan processing fees that are currently 1.057%. The fees are deducted from the proceeds of your loan. The origination fee will change for any loan disbursed after October 1, 2022.

New Federal regulations require schools to disburse loans only after the signed Promissory Note has been accepted.

For first-time student borrowers, the funds will not disburse until at least 30 days after the start of the student's active enrollment in 6 (six) units

1. Direct Subsidized loan

To qualify, a student must be enrolled in at least six units, demonstrate Satisfactory Academic Progress for Aid recipients and must demonstrate financial need through the federal methodology using the FAFSA Application. Students must complete a mandatory loan entrance counseling session. Students must contact the Financial Aid Office or visit the College website for

application procedures. You may complete the entrance counseling session online at: <https://studentaid.gov/entrance-counseling/>

You must complete an online multi-year Master Promissory Note at: <https://studentaid.gov/mpn/>

On August 13, 2021, the Secretary removes and amends regulations to conform with changes made by the Consolidated Appropriations Act, 2021. Specifically, the Secretary removes the subsidized usage loan limit restriction (SULA) for any borrower who receives a Federal Direct Stafford Subsidized Loan first disbursed on or after July 1, 2021, regardless of the award year associated with the loan.

The Financial Aid Office will be notified when the session has successfully been completed. In addition, you must fill out a Loan Request Form from your Financial Aid Office. You must complete an online multi-year Master Promissory Note at: www.studentloans.gov.

You may also be required to submit an Educational Plan and be enrolled at the campus of your declared major. Please ask your Financial Aid Office for more information. The actual loan amount for which you are eligible will be determined by the Financial Aid Office. Checks will be disbursed twice per loan period. If you are a first-time student or borrower, your check will not be disbursed until at least 30 days after the start of the semester. If you have "Late Start" classes, you must be actively attending classes in at least six units, before your loan can be disbursed.

For additional information, please refer to the Financial Aid Bulletin or call the Financial Aid Office at 619-388-3501.

2. Direct Unsubsidized loan

An unsubsidized student loan is a type of loan in which interest begins accruing on the disbursement date. The accrued interest is capitalized and added to the loan balance until the repayment process begins, which is also charged during in-school, deferment, and grace periods. A student must be actively enrolled in at least six units, have a valid FAFSA on File, and demonstrate Satisfactory Academic Progress for Aid recipients. The students do not need to demonstrate financial need through the FAFSA's federal methodology, and the loan award cannot exceed the Federal Annual borrowing limit. The actual eligible amount of the loan will be determined by the Financial Aid Office once the application has been reviewed. Students must complete and submit

the paper loan request form to the Financial Aid office, along with all the required documentation described in the loan steps disclosed in the loan request form. In addition, a copy of the Educational Academic plan may be required.

Federal Direct Plus Loan

Parents of dependent undergraduate students may borrow from the PLUS loan program. The amount borrowed may be up to the cost of attendance minus any financial aid. Checks will be payable to the parent. Parents must begin repayment within 60 days of receiving full dispensation of the loan. The interest rate is a fixed rate. Student and borrower must meet all other financial aid eligibility requirements, including completing the FAFSA.

National Student Clearinghouse

All current SDCCD student's enrollment levels are automatically sent to the National Student Clearinghouse. Submission and disclosure of enrollment levels is a federal requirement for students with current and past student loans according to regulations. Enrollment information for students with no prior or current student loan history is protected from disclosure by the contractual agreement between the National Student Clearinghouse and the San Diego Community College District. For more information, please contact your campus Financial Aid Office.

HUBU

A-341

619-388-3609

The Hermanos Unidos/ Brothers United (HUBU) Learning Community focuses on improving the success rates of African American and Latino male students. HUBU aims to enhance the academic, social and cultural experiences of men of color at San Diego City College. The HUBU curriculum focuses on identity development, and its relevancy in understanding students' personal and academic goals.

The program's educational philosophy is centered around the concept of validation through pedagogy responsive to ethno-cultural groups and practices that deliberately engage students as full participants in the learning process.

Along with courses such as Personal Growth, English, Black/Chicano Studies, HUBU participants receive the following personalized services:

- Personal Development
- Mentoring
- Activities that promote student involvement on the campus and in the community.

For more information or to join, please contact Rasheed Aden via phone (619-388-3609) or email (aaden@sdccd.edu).

Learning Resource Center (LRC)

619-388-3421

The San Diego City College's Learning Resource Center (LRC) serves the information and study needs of the City College community. Located in the R building on the southeast corner of campus at Park Boulevard and B Street, the LRC is comprised of the Library on the second (main) and third floors, and the Independent Learning Center, the Office of Classroom Technology Management and Multimedia, and CitySITE (faculty/staff development) on the first floor. Monitors on each floor are set to broadcast campus information. San Diego City College students will find that the LRC provides a multitude of services and scholarly research resources specifically selected to support their academic success. Below is a brief overview of our resources and services.

LRC / Library

619-388-3421

The Library offers an extensive collection of both print and electronic scholarly books, reference resources, periodicals (scholarly journal, newspapers, magazines) and video. Remote access is available to our e-books, e-periodical databases and streaming video databases. On-campus wireless access is available to currently enrolled students.

San Diego City College students find help with their research and information needs at the Library's Information Center (reference desk), by phone, email, or 24/7 online chat. They can also get help via in-person and zoom one-on-one and small-group appointments. Students may enroll in a

transferable one-unit course, Information Literacy and Research Skills (LIBS 101). Scheduled tours, instructor requested research sessions, access to reserves, circulation services, group study rooms and interlibrary loan services between district colleges are also offered. Please see our web site <https://library.sdcity.edu/home> for more information.

LRC / Independent Learning Center

619-388-3766

The Independent Learning Center (ILC) creates a welcoming environment for students pursuing independent learning experiences to augment their in-class activities and improve their academic skills. The ILC provides access to the Internet, a wide array of specialized software required for a variety of classes, adaptive software, and Microsoft Office Suite.

LRC / Office of Classroom Technology Management

619-388-3418

The Office of Classroom Technology Management and Multimedia (OCTM) provides technical support and maintenance for smart classrooms and all campus-wide audiovisual equipment required for a modern college in the 21st century. In addition, OCTM manages and maintains the digital signage services campus-wide. Moreover, and in collaboration with the campus Business Office, OCTM addresses requests for technical assistance for campus-wide events.

Mental Health Counseling

A-180

619-388-3055

Mental Health Counseling supports student success through focus on personal, social, and emotional well-being. Our culturally sensitive, trauma-informed services for students are confidential and free. Mental health counseling is designed to support overall wellness in a proactive, relaxed and caring atmosphere.

Teletherapy via Zoom for Healthcare and Face to Face (in person) sessions are offered (depending on current district policy). Counseling services

are provided by Licensed Clinical Social Workers, Licensed Marriage and Family Therapists, Licensed Professional Clinical Counselors, Masters level staff and graduate interns/trainees and include:

- Individual strengths-based therapy
- Couples and family therapy
- Group therapy and educational workshops/training for students, faculty and staff
- Crisis intervention and resource links (crisis and case management)
- Campus wide prevention and awareness events
- Cognitive behavioral based therapy and mindfulness training targeted at addressing specific school related problems such as test taking anxiety, math anxiety, panic disorder, etc.
- Faculty/Staff consultations and instructional collaborations to promote student success
- Collaborative Care Team support and disciplinary evaluations
- Collaboration with the Student Health Clinic and Basic Needs Program for wrap around care

Students can request an appointment via phone, website or in person in A180. www.sdcity.edu/mentalhealthcounseling

For additional information, please see Student Health Center.

MESA Program

T-393

619-388-3156

The Mathematics, Engineering, Science Achievement (MESA) Program enables educationally disadvantaged students to prepare for and graduate from a four-year college or university with a math-based degree in areas such as engineering, life and physical sciences, computer science, and mathematics. Through MESA, students develop academic and leadership skills, increase educational performance, and gain confidence in their ability to compete professionally.

MESA has particular interest in and focus on students from those groups who historically have had the lowest levels of attainment to four-year and graduate level programs. By closing this achievement gap, MESA students and graduates will be better able to

make significant contributions to the socioeconomic well-being of their families and their communities.

In MESA you will find:

- A place to study with other students in your major
- Walk-in tutoring in math and science
- Easy access to computers and printing
- Reference textbooks and scientific calculators available for student use
- Current scholarship, internship, and research opportunities
- Counseling support for transfer and career exploration
- Activities sponsored by the San Diego MESA Alliance

If you are interested in joining the MESA program, please visit the MESA Center in room T-393.

Outreach

A-250

619-388-3496

Our goal is to inform, support, and guide prospective students, families, agencies, and the community through interest, exploration, and enrollment to the institution. The Outreach Office will aim to empower students by providing the most up-to-date information, program contacts, and a clear pathway to successfully matriculate through the enrollment process.

Core Outreach Services:

- City InfoKNIGHTS
 - Mobile information sessions held in the community
- The City Experience
 - On campus tour of the campus and connection to the campus resources
- City Connect Sessions
 - Street outreach sessions delivered by ambassadors
- City Insight Sessions
 - A comprehensive program which reviews campus resources, academic programs,

degree, and certificates

- City Con NEXT Sessions
 - Provide support to prospective students and families in the completion of the steps to enrollment

Connect with us:

- Email: cityoutreach@sdccd.edu
- Website: <http://www.sdccity.edu/future-students/outreach.aspx>
- Phone: 619-388-3496
- Social media:
 - Instagram & Twitter: SDcityOutreach

Performing Arts

The City College Department of Visual and Performing Arts present plays and dance performances to the public throughout the year. We provide a vibrant educational environment that cultivates creative learning experiences between students, teachers, and the community.

Puente Project

A-341

619-388-3668

The Puente Project, co-sponsored by the University of California and the Community Colleges, is an academic preparation, retention and transfer program. Puente is a program in which students participate in three components:

- Writing—students enroll in English 101X for the Fall, English 205 for the Spring and Communications 103 the following Fall semester. Course materials focus on Chicana/Latina literature & experience to enhance writing skills.
- Counseling—academic, personal, transfer and career counseling is offered. Students enroll in Personal Growth 120 for the Fall semester and Personal Growth 130 for the Spring semester.
- Mentoring—students are exposed to various career options through their close involvement with mentors.

Materials utilized in the Puente Project come from the Chicana/Latina perspective. Classes are

open to all students. If interested in participating, please stop by the Counseling Department and speak to the Puente counselor or visit our website: www.sdcccd.edu/puente.

San Diego Promise Program

A-313

619-388-3998

The San Diego Promise is a two-year completion program for recent high school graduates enrolled full-time (12 units per semester). The program provides up to two years of FREE tuition to eligible students. Participation in the San Diego Promise Program comes with a variety of benefits: an assigned peer mentor/success coach, specialized counseling and guidance support, and additional campus engagement opportunities. For detailed information on all services offered and application procedures, please contact the San Diego Promise Program located in A-313 or visit our website: <https://www.sdcccd.edu/students/student-promise/index.aspx>.

Eligibility

To be eligible for the San Diego Promise Program, students must meet all of the following criteria:

- Must be a first-time to college student*
- Must be a class of 2022 high school graduate** (H.S. Diploma or GED) OR identify with one of the following groups:
 - Foster Youth Student
 - Veteran of U.S. Armed Forces
 - Formerly Incarcerated Student
 - Undocumented Student
- Must be a California resident or AB 540 eligible
- Must complete a 2023-2024 financial aid application (FAFSA or CA Dream Act)
- Must be prepared to enroll in a minimum of 12 units each semester (does not apply to students with disability (DSPS) accommodation on file)

*Student who completed college courses while in high school are eligible

** First time to college, class of 2022 high school graduates (H.S. Diploma or GED) maybe eligible

To find out if you may qualify to participate in the San Diego Promise, please contact us via email at sdpromisecity@sdcccd.edu or call us at 619-388-3998 or call 619-800-3464.

Student Accounting

A-256

619-388-3458

The San Diego City College Student Accounting Office is located in A-256. You can pay for your classes, purchase a parking pass, and more.

Student Affairs/ Campus Life

M-200

619-388-3498

The Office of Student Affairs provides a variety of services designed to provide students with a well-balanced academic and extra-curricular college experience.

Student leadership, clubs and organizations, cultural events, graduation and other support services are offered through the Office of Student Affairs.

Associated Students Government (ASG)

The Associated Students is the governing body that finances, organizes, and directs many student-sponsored programs and activities at City College. Elections are held annually for Associated Student President and other officers. Any student registered for units at City College at the time of the election may vote in the elections.

Current district policy allows the elected Associated Student President to share the responsibility of the Student Trustee. The Student Trustee is a non-voting member of the Board of Trustees of the San Diego Community College District and represents the student voice on the Board.

Any student who participates in student government may not have any Policy 5500 violations of suspension or greater, as stated on their official student record.

You may view a full copy of the policy by accessing the following website: <http://www.sdcccd.edu/public/district/policies/>.

Associated Students Membership

Support your student body by purchasing an AS membership. The membership entitles you to special benefits and privileges. The revenues go back to support various campus events and activities. See the Associated Students office, M-200 for a list of current benefits.

Student Organizations

There are over 30 active student organizations on campus reflecting the diversity of interest of the student body. Students wishing to charter or register new organizations should contact the Student Affairs Office in M-200.

Student Health Center

Student Health Clinic

Medical and Nursing Services
A-180

619-388-3450

Mental Health Counseling

A-180

619-388-3055

The City College Student Health Center program consists of medical, nursing and mental health care. Mental health care and support is provided by **Mental Health Counseling**. The medical/nursing program provides preventive and primary health care, with linkages to community resources as needed. Students are welcome to call or email the office to schedule an appointment with the Student Health Center physician or nurse practitioners. Same day appointments may be available. Our services for students are confidential and free/low cost.

Ambulatory medical care is provided by the physician or nurse practitioners. This includes history and physical assessment of skin, muscle, joint, respiratory, gastrointestinal, endocrine and/or other system problems. Medical linkages are made to the community as indicated. Laboratory tests and prescription medications are provided at low cost, as ordered by the physician or nurse practitioner. First aid is provided for minor problems. For severe or life-threatening issues, emergency care is accessed through the Emergency Medical Transport System of San Diego.

For the protection of college students and personnel, students may be asked to supply health

records. In addition, the college may require health consultations and physical examinations when they appear necessary. Legal injection of prescribed medications must occur in the Student Health Center for safety purposes. All students are strongly encouraged to obtain immunizations against communicable diseases as recommended by the State of California and San Diego Public Health Departments.

Student Accident Insurance/Claims

The Student Health Fee provides coverage for on-campus accidents or college-related injuries. All student campus injuries are processed through the Student Health Center in A-180 as soon as possible after the accident/injury has occurred.

For additional information on Mental Health Counseling, please refer to the Mental Health Counseling Center section.

Support Services

Food Services

The cafeteria serves both day and evening students:

D-120 Campus Cafe serving coffee and espresso drinks, and hot grill items

D-120 Knights Store providing grab and go items, and refreshing drinks

16th and C Store – MS Building Lobby serving coffee and espresso drinks, and grab and go items

College Police Department

The College Police Department is responsible for providing public safety, law enforcement and crime prevention services. Its mission is to maintain peace and order and a safe learning environment throughout our District. It is also responsible for administering the campus parking program, lost and found and the building security program.

The police business office is located in V-100. For information and general assistance, call 619-388-3461. For police assistance, call 619-388-6405. Emergency services are provided 24 hours a day 7 days a week. Learn more about College Police at: <http://police.sdccd.edu>.

Police Escort and Related Services

The college police are available to provide safety escorts, vehicle battery jumps, and vehicle lockout services during regular hours of operation. Students who wish to use these services should call College Police Dispatch at 619-388-6405 or go any of the College Police Offices at the following locations for assistance:

City College (V-100)..... 619-388-3461
 Mesa College (Q-100)..... 619-388-2749
 Miramar College (T-100) 619-388-7353
 or 858-536-7353
 College Police Dispatch..... 619-388-6405

Emergency Calls

The college will not interrupt classroom instruction to deliver messages, except in extreme emergencies. All calls/inquiries should be referred to the College Police Dispatch at 619-388-6405.

Parking

1. Student parking permits are available for purchase during online registration or at the campus accounting office. Permits paid for before classes begin are generally mailed and those purchased after classes begin must be picked up. Parking permits are required the first day of each semester; fall, spring, and summer. There is no grace period.
2. Students may not utilize staff/faculty parking areas unless they are the owner of a valid, state issued disabled placard. Owners of a valid disabled placard are not required to buy a parking permit.
3. There are time limited visitor parking spaces at each campus reserved for visitors' use only. Students, except owners of a valid state issued disabled placards, may not utilize visitor parking. All campuses have pay and display machines for visitor and student use. Visitors and students can also download the ParkMobile! mobile app to pay by credit card. Pay and display permits and ParkMobile! payments are only valid in student parking spaces.
4. **Motorcycles** must display a valid motorcycle permit and be parked in designated motorcycle parking only.
5. **Bicycles** must be parked only in designated bicycle racks. Students are not allowed to

ride bicycles, motorized bikes, scooters or skateboards on campus. Violators are subject to citation and/or disciplinary action.

Transportation for Students with Disabilities

Paratransit (curb-to-curb) service is available for a fee to persons with disabilities who cannot use public transportation. ADA certification is required. Please contact DSPS for additional information or forms for certification. Students may also contact MTS (Metropolitan Transit System) at 888-517-9627.

Vehicle Immobilization/Booting/Towing/Hold

Vehicles that accumulate five (5) or more unpaid parking citations are subject to immobilization (booting) of their vehicle and/or impound (towing) at owners expense. In addition, a hold may be placed on the vehicle registration. If a vehicle accumulates \$100 or more in outstanding fines a hold may be placed on the student's registration and/or diploma.

Emergency Cell Phone Numbers

The College encourages students to provide cell phone numbers to communicate with them in the event of a college or district-wide emergency. Students can provide this important information at: <https://myportal.sdccd.edu/>.

Transfer/Career Center

A-301 619-388-3722

Our mission is to assist students to successfully transition from San Diego City College to a four-year institution or immediately into the career of their choice. We empower students in the transfer and career process to ensure a smooth and positive transition.

University Transfer/Career Services

The Transfer/Career Center is a resource center that assists students in planning their transition to a new career, new job, or transfer to a four-year university. The Center also administers guaranteed transfer admission programs to selected universities.

The Transfer/Career Center offers assistance in the following areas:

Service Offerings

- Transfer workshops
- University fairs
- Connection to College representatives
- University tours
- Transfer deadlines, information on CSU's, UC's, and private colleges
- Associate Degrees for Transfer (ADT)
- Career Preparation workshops
- Resume reviews
- Job search assistance
- Job placement
- Internship placement

Visit the Transfer/Career Center website:
www.sdccity.edu/academics/transfer.aspx.

Tutorial Services

Tutorial/Learning Center

The Tutorial/Learning Center is located in the Academic Success Center (L-205). The Center is dedicated to providing high quality academic support to students in art, science, vocational, and technological courses. The goal is for each student to become an independent learner, who will succeed in the collegiate setting.

Peer tutors are carefully selected and professionally trained for most college subjects. Many are bilingual to help with language barriers. They provide FREE walk-in and small group tutoring in most subject areas. Supplemental Instruction (SI) and Online tutoring are available on limited subjects.

All City and ECC students must sign up to receive tutoring services.

For hours of operation and additional information, visit our website www.sdccity.edu/students/services/TLC/, or call 619-388-3685.

English Center

The English Center is located in the Academic Success Center (L-209). The Center offers peer tutoring in reading, writing, and critical thinking assignments in classes across the curriculum. Tutors can provide assistance on a wide variety of assignments at any stage of the writing process. No appointments are taken; tutors see students on a walk-in basis. The Center is a free service to City College students. Hours, which may vary from semester to semester, are posted outside the Center.

Math Center

The Math Center, located in the Academic Success Center (L-208), understands the importance of student-success, as well as students' learning needs. Our mission is to provide a flexible student-centered environment that supports students' effort to complete college math requirements. We strive to provide multiple services and resources that are conducive for student learning. These services include, but are not limited to:

- Walk-in Tutoring: Math 34A – Math 252
- One-on-one Tutoring
- Small group Tutoring
- Math 15ABC Refresher Courses (short term)
- Weekly Math 96 Workshops
- Computer Access to MyMathLab, Aleks, etc.
- TI Graphing Calculator Access

The Math Center's hours of operation are Monday–Thursday 10:30am–7:00pm, Friday and Saturday 10:30am–2:30pm. The Math Center's services are free of charge to all current students taking a math class at City College. **Student Identification (CSID) is required for all** who wish to utilize services in the Math Center.

For additional information visit our website www.sdccity.edu/academics/academic-resources/mathcenter/.

Computer Services

The use of District computer equipment is limited to District staff and students.

Umoja

A-341

619-388-3796

The Umoja Community is a learning community that seeks to engage, connect, educate, support, and encourage students through a program of math, English, and personal growth courses to prepare students for transfer to four-year colleges and universities. Course materials, discussions, and activities focus on African-American culture, literature, and experiences.

Program Components:

- Orientation
- Counseling
- Academic/Cultural Enrichment Activities
- Mentoring
- Supplemental Instruction/Tutoring
- Umoja Village
- Leadership Conferences

If you are interested in joining the Umoja Community, please visit Erin Charlens in room A-341.

Veterans and Service Members

A-241

619-388-3504

Veterans Center Military Service Connected Benefit Programs

The San Diego Community Colleges have been approved to offer military service connected benefit programs leading to a Certificate of Achievement or Associate Degree or transfer to a four-year institution. The Veterans Office staff provides guidance to veterans and assists them in the selection of educational programs which qualify for veterans benefits. The final responsibility for monitoring the process of qualification for educational benefits resides with the individual. Each veteran must read, understand, and comply with the many rules, regulations, and procedures that influence the benefit process.

Students on active duty and veterans who have been discharged within the past 15 years may be eligible

for up to 4 years priority registration. Check with the college Enrollment Services Office for eligibility. An Active Duty Military ID card or DD214 are required for verification.

The District prohibits high-pressure recruitment tactics such as making multiple unsolicited contacts (3 or more), including contacts by phone, email, or in-person, and engaging in same-day recruitment and registration for the purpose of securing Service member enrollment. See AP 5013—Students in the Military for additional information, <https://www.sdccd.edu/docs/District/procedures/Student%20Services/AP%205013.pdf>

Failure to take the proper classes may result in an overpayment and the reduction or termination of benefits.

Disabled Veterans

Veterans who qualify for educational benefits as disabled veterans may be entitled to special educational benefits. Veterans should visit the Veterans Administration Regional Office, 8810 Rio San Diego Drive, San Diego, CA, 92108, to determine their eligibility for disabled status (Telephone: 1-800-827-1000).

Veterans with disabilities are encouraged to pursue services offered through disAbility Support Programs and Services, A-122.

Veteran Dependent Exemption

Children and spouses of U.S. Veterans with service connected disabilities may be eligible for waiver of college fees and/or for a small monthly payment. For more information see the Financial Aid or the Cal Vet website: <https://www.calvet.ca.gov/VetServices/Pages/College-Fee-Waiver.aspx>.

Liability

The veteran assumes full liability for any overpayment of veterans benefits.

All persons receiving educational benefits must report to the Veterans Office after enrollment **every semester** to continue their benefits. **In addition, a Student Education Plan (SEP) must be on file by the end of the first semester;** otherwise, certification of VA benefits will be delayed for the second semester. This plan must be developed and reviewed by a counselor.

Number of Units Required

For students enrolled in a degree program under CH: 30, 31, 35, 1606/1607, the following number of units are required each semester to qualify for educational and training allowance:

12 units or more	full allowance
9 – 11.5 units	three-fourths allowance
6 – 8.5 units	one-half allowance
2 – 5.5 units	one-quarter allowance*

* Chapters 32 and 1606 only. All other chapters, tuition and fees only.

Short-term and summer session courses are computed proportionately for payment purposes.

Rate of Pursuit (Chapter 33)

The Chapter 33 housing allowance is paid if the rate of pursuit is more than 50%. The Department of Veterans Affairs calculates the rate of pursuit by dividing the benefit-eligible credit hours/units (or credit hour equivalent) enrolled by the number of credit hours/units considered to be full-time by the school. The resulting percentage is the student's rate of pursuit.

Please visit www.gibill.va.gov for additional information and updates.

Withdrawal/Change of Classes

Veterans are required to notify the campus Veterans Office when they stop attending class, withdraw from the college, or add or drop a class. Such changes should be reported immediately after completing the add/drop procedure. Failure to comply with this regulation will be grounds for decertification of VA benefits.

Veterans Academic Progress

A veteran student on Academic probation status will be dismissed when his/her semester grade point average (GPA) falls below 2.0 the subsequent semester. A veteran student on Lack of Progress probation status will be dismissed if he/she does not complete over 50% of attempted units in the subsequent semester. The College Veterans Office is required to notify the Department of Veterans Affairs (DVA) of this status. The DVA will terminate benefits unless it can be shown that the student is pursuing an appropriate objective and has a reasonable chance for success in the chosen program. Please contact the Veterans Office for more information.

Readmission After Termination Status

Students who wish to be considered for readmissions after the VA termination will be required to meet with a VA counselor and develop a Student Success Plan prior to being readmitted.

Repeated Classes

Veterans may not receive benefits for a repeat of a course in which a grade of "A," "B," "C," "D," or "P" has already been earned. Although District policy allows a student to repeat a course in which a "D" grade has been received, the course may be certified for benefits only if this catalog states that a grade of "C" or better in that course is required to earn a degree or meet a prerequisite.

Work Experience

Veterans may be approved for Work Experience classes only if it is required for their major or electives are available according to their education plan.

Transcripts

All official transcripts of prior college work and military schools, including copies of form DD214, DD2685, Joint Services Transcript, or Smart Transcript covering all periods of military service, **must be on file in the Records Office by the end of the first semester of attendance at this college.** Certification for benefits for the second semester will be withheld if transcripts are not received. Visit the Veterans Office for necessary forms.

Veterans Service Center

The Veterans Service Center (VSC) in M-101 is open all year. The mission of the VSC is to provide a welcoming environment for all veterans, dependents, and active duty members. The VSC is designed to serve both men and women, from military transition to the completion of their academic goals. The VSC provides services in three primary areas: academics, community and wellness.

Welcome Center

A-201

619-388-3998

www.sdcc.edu/peerlab

The Welcome Center is open year-round for current and prospective students who need support navigating the enrollment and matriculation process. Assessment and Placement services are also available for students seeking guidance in ELAC and/or Math placement. Current and prospective students have access to one-on-one drop-in support from staff and peer mentors.

Services

The Center aims to provide a supportive onboarding experience for students as they start and continue their educational journey.

- Admissions Application
- Financial Aid and Dream Act Application
- Promise Application
- Assistance with enrollment process
- Assessment/Placement
- mySDCCD, CANVAS
- Referrals to support services and resources available on campus
- Follow-up services
- Access to peer mentors
- Monthly workshops

Work Experience Program

BT-215

619-388-3488

The Work Experience Program awards college credit for learning experiences that take place on a job or internship. The goals and assignments for completion of work experience courses are formulated with the student's workplace supervisor under the direction of the course instructor. More information on Work Experience courses is available in the Programs of Instruction section of the catalog under courses numbered 270. Course enrollment is limited and may not be available to all students.

To learn more about Work Experience or to apply for enrollment in a Work Experience course, visit room BT-215, or call 619-388-3488.

Academic Information and Regulations

<i>At-A-Glance</i>	<i>Page</i>
Academic Information.....	54
Grading System.....	56
Standards of Academic Progress.....	58
Academic Regulations.....	59
Volunteer/Visitor Conduct Expectations.....	93
Student Records, Release, Correction and Challenge.....	94
Complaint Processes.....	94

Disclaimer: SDCCD continuously reviews and updates policies and procedures to ensure compliance with state and federal regulations and changes in business practices. Please refer to the SDCCD website for the most up to date information.

Academic Information

Statement of Open Courses

It is the policy of the San Diego Community College District that, unless specifically exempted by statute, every course, section, or class offered by the District and reported for state aid shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets course prerequisites.

Honest Academic Conduct

Honesty and integrity are integral components of the academic process. Students are expected to be honest and ethical at all times in their pursuit of academic goals in accordance with Policy 5500, Student Rights, Responsibilities, Campus Safety, and Administrative Due Process.

Academic dishonesty occurs when a student attempts to show possession of a level of knowledge or skill which he or she does not possess. The two most common kinds of academic dishonesty are cheating and plagiarism. Cheating is defined as the act of obtaining or attempting to obtain credit for academic work by the use of any dishonest, deceptive, or fraudulent means. Plagiarism is defined as the act of incorporating ideas, words, or specific substance of another, whether purchased, borrowed or otherwise obtained, and submitting the same as one's own work to fulfill academic requirements without giving credit to the appropriate source.

Students who engage in practices of cheating or plagiarism may warrant two separate and distinct courses of disciplinary action which may be applied concurrently in response to a violation of this policy. Students are responsible for knowing what constitutes academic dishonesty and for consulting with instructors about questions or concerns. Procedure 3100.3 describes the Academic and Administrative Sanctions for Students who are found to be cheating or plagiarizing. Copies of the procedures can be obtained in the Office of the Vice President of Student Services and online at <https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>

Responsibility for Meeting Requirements

Each student must assume responsibility for compliance with the regulations of the college set forth in this catalog, for satisfying prerequisites for any course, and for selecting courses which will facilitate attainment of educational objectives.

The college does not assume responsibility for misinterpretation of policies and procedures as presented in this catalog. Counselors and advisors are available to assist in planning students' programs. Any questions or doubts concerning this catalog material should be referred to the Office of the Vice President, Student Services.

Dean's List

A Dean's Honor List is compiled after each spring term for the academic year (fall to spring). To be eligible for the Dean's Honor List, a student must complete 12 units or more during the academic year and have earned a grade point average of 3.5 or better.

Honors Program

The Honors Program is open to any student who meets appropriate general and departmental criteria. Honors classes are designed to provide strongly motivated students with a more in-depth or cross-disciplinary curriculum and a highly interactive classroom experience.

The Honors core curriculum, "A World of Ideas," is intended for prospective transfer students who are interested in a multicultural, multinational perspective in their courses. The goal of the program is to facilitate and increase transfer to the University of California, California State University, and distinguished private universities, as well as to enhance employability for vocational students.

Special transfer agreements also exist for City College Honors students at the following four-year colleges and universities: UCLA, UC Santa Cruz, UC Irvine, UC Riverside, USC, Pomona College, Occidental College, SDSU, Pepperdine University, Chapman University, Whitman College and Pitzer College. For information on eligibility requirements and course offerings, see the schedule of classes or call (619) 388-3512.

The Honors Program is open to all students (part-time or full-time, day or evening) and can be found in all disciplines (vocational, liberal arts, fine

arts, sciences, business, etc.). For specific criteria and other information, please consult the schedule of classes or contact the campus Honors Coordinator.

Students enrolled in an Honors section (including an honors contract), may not transfer to a regular section after the deadline to make a schedule adjustment for the class. Petition for Honors Credit after the course has been completed will not be permitted.

SDCCD Online Learning Pathways

San Diego City, Mesa, and Miramar Colleges

QUALITY ONLINE LEARNING

Learn anytime, anywhere with our convenient, flexible online courses that fit your busy schedule. Enjoy interactive communication with your classmates and instructor as you complete your coursework in an engaging, supportive learning environment. Our quality online courses are developed and taught by experienced instructors from our three colleges—City College, Mesa College, and Miramar College.

Want to get started? Find out if online learning is for you at: <https://www.sdccd.edu/students/online/student-training.aspx>.

Get ready for online learning success! Visit: www.sdccdonline.net/students/training/.

Online students receive 24/7 Technical Support at <https://cases.canvaslms.com/liveagentchat?chattype=student> or by calling toll free 844-612-7421. For login instructions visit: www.sdccdinstructure.com.

Off-Campus Programs

City College offers credit courses at various locations throughout San Diego such as the Educational Cultural Complex (ECC), and other educational and social service agency sites. These classes are open to all City College students and are designed to provide an opportunity for students to attend classes in the community that are short term, easily accessible, and have convenient parking. Off-Campus courses are listed in the class schedule each semester under the subject in which they are offered. Classes held at the ECC location are also listed in the ECC section of the class schedule. If you have questions about enrolling in off-campus classes, call the Off-Campus Programs office at 619-388-3924.

Study Abroad Programs

San Diego City College has offered students the opportunity to study in different countries around the world in order to develop global competencies and to increase cultural awareness while making progress towards completion of academic goals.

Classes are held at educational institutions in the host country. Field trips, excursions, and visits to sites of cultural and historical interest are components of the program. Housing arrangements include family homestays, student apartments, and/or residence halls. Financial aid and scholarships are available for students who qualify.

Semester Abroad Programs: These enhanced learning opportunities have been offered in countries such as Argentina, Australia, Costa Rica, France, Italy, Spain, and the United Kingdom. Courses are taught by faculty from California community colleges. Classes offered abroad meet general education requirements, are CSU and mostly UC transferable, and are selected to take advantage of the host country's history, environment, and culture.

Summer Abroad Programs: Programs from 10 days to 4 weeks have been available during the summer. Spanish immersion in Mexico and Costa Rica has been offered; as well as, photography in Italy and the United Kingdom, and graphic design and dance in Mexico.

Contact Information: Additional information can be obtained from the International Education Office at <https://www.sdccd.edu/departments/educational-services/equity/international-education.aspx>.

Work Experience

Work Experience students can receive academic credit for their current employment or volunteer service. For registration information, call 619-388-3488 or contact the Work Experience Office in BT-215.

Distance Education

The San Diego Community College District offers students the opportunity to take online credit courses at San Diego City College, San Diego Mesa College, and San Diego Miramar College. Online courses offer the same curriculum as traditional courses except that lectures and course materials are accessed via the district's web-based learning management system. Students engage in classroom discussions and online collaborations

with other students and the instructor. Online registration, counseling, tutoring, and library services are available. SDCCD offers a variety of courses including general education and transfer requirements online. Courses offered meet the Americans with Disabilities Act (42 U.S.C. §12100 et seq.) and section 508 of the Rehabilitation Act of 1973, as amended, (29 U.S.C. §794d).

To ensure student authentication and academic integrity, students have secure logins and are required to perform activities that demonstrate meaningful participation on a weekly basis. Students must logon the first day of class.

In accordance with federal regulations there are restrictions on enrollment in online classes for students residing outside of California. For more information go to <https://www.sdccd.edu/docs/SSDept/SSDocs/OnlineStatesNotPermitted.pdf>.

Grading System

Unit of Credit: A unit of credit represents one hour of lecture or recitation and two hours of preparation per week, or three hours of laboratory per week for one semester.

Academic Grades

Grade	Standing	Grade Points per Unit
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing—less than satisfactory	1
F	Fail	0
P	Pass	Units earned not counted in GPA
NP	No Pass	Units not counted in GPA

The grade point average (GPA) is determined by dividing the total grade points earned by the total grade point units completed as listed in the chart above.

Administrative symbols: P/NP—Pass/No Pass; I—Incomplete; W—Withdrawal; IP—In Progress; EW—Excused Withdrawal; RD—Report Delayed. Administrative symbols are not used in the computation of GPA. See below for further explanation.

Pass/No Pass (P/NP) is a non-punitive grading system where such units earned will be counted in satisfaction of curricular requirements but will be disregarded in determining a student’s grade point average. For more specific information, refer to the discussion of the “Pass/No Pass Grading Policy” on page 57.

Incomplete: A symbol of “I,” Incomplete, may be assigned by an instructor when a student has been unable to complete academic work for unforeseeable emergency and/or justifiable reason at the end of term. A copy of the “Assignment of Incomplete” form will be mailed to the student and the original retained in the District Records Office. A final grade will be assigned when the work stipulated has been completed and evaluated by the instructor or when the time limit for completion of the work has passed. An “I” must be made up no later than one year following the end of the term in which it was assigned. In the event of unusual, verifiable circumstances beyond the student’s control, a petition may be filed in the Office of the Vice President, Student Services for extension of the one-year time limit. **Course repetition is not permitted to remove an Incomplete.**

Withdrawal: An official withdrawal from classes may be requested by the student or initiated on his/her behalf by the instructor or Vice President, Student Services.

The following conditions apply to official withdrawal:

1. No record of the class will be entered on the student’s permanent record if the official withdrawal is made by the deadline to drop without a “W” being recorded as published in the schedule of classes.
2. If the withdrawal is made after the deadline for withdrawing without a “W” and prior to the deadline for withdrawal published in the class schedule for that session, a “W” will be recorded on the student’s permanent record. No exceptions to this policy will be made. Petitions will not be accepted for exception to policy.
3. A student attending a session after the deadline for withdrawal will not be eligible to receive a “W” and must be assigned an academic grade or other administrative symbol by the instructor. Exceptions to this policy will be made only upon verification of extreme circumstances beyond the control of the student. Petitions requesting exception must be filed in the Admissions Office.

4. Withdrawal (W) symbols will be used in the calculation of lack of progress probation and dismissal status.
5. Students on active duty or reserve duty may petition for a “military” withdrawal. This withdrawal is not calculated in the determination of academic progress and is noted on the student’s academic record.
6. Students will be allowed a maximum of three withdrawals in any course.

In Progress: A symbol of “IP,” In Progress, will be assigned when a class extends beyond the normal end of a semester or summer session, that is, when the class “carries over” from one term to the next. The “IP” will appear on a student’s record for the term during which the course is completed until the appropriate grade is assigned by the instructor. The “IP” shall not be used in the calculation of a student’s grade point average.

Excused Withdrawal: A symbol of “EW,” Excused Withdrawal, may be assigned when a student is permitted to withdraw from a course(s) due to specific circumstances beyond the control of the student affecting his or her ability to complete a course(s).

- Excused withdrawal will not be counted in progress probation and dismissal calculations.
- Excused withdrawal will not be counted as an enrollment attempt.

Students requesting an Excused Withdrawal can obtain a Petition for Excused Withdrawal (EW) via: <https://www.sdccd.edu/students/forms-and-documents.aspx>.

- Excused withdrawal (EW) petitions will be accepted up to one year after the completion of the semester in which the student is requesting an EW.
- All petitions must be accompanied by supporting documentation substantiating the student’s extenuating circumstances, including pertinent dates and times.
- It is recommended that students visit with a counselor to discuss alternative options to an Excused Withdrawal to be sure that this choice is the best course of action for the student’s academic career.

- Students receiving financial aid should contact the Financial Aid Office to understand the possible implications to financial awards.

Grade Challenge

Final grades will be issued at the end of each semester. In the absence of mistake, fraud, incompetence, or bad faith, the determination of the student’s grade by the instructor shall be final once it has been recorded by the Registrar’s Office.

A student may challenge a grade or request a change to his/her academic record within two years from the date of issuance. Requests beyond two years will not be accepted. Students wishing to challenge a grade should first attempt to resolve the challenge informally with the instructor. Grade challenges must be processed under District Procedure 3001.2, Grade Challenge Procedure. Copies of Procedure 3001.2 are available in the Office of the Vice President, Instruction.

Pass/No Pass Grading Policy

There are courses in which Pass/No Pass grades are used exclusively; these are designated in the catalog course description by the statement “Pass/No Pass Only.” In addition, there are courses which cannot be taken on a Pass/No Pass basis; these are designated in the course description by the statement “Letter Grade Only.” Some courses may be taken for either “Pass/No Pass” or “Letter Grade.”

Consistent with District policy, a student in good standing may elect to be graded on a Pass/No Pass basis in courses where there is an option. A grade of “Pass” (P) shall be awarded only for work which otherwise would have received a grade of “C” or better. Work that would have received a “D” or “F” will be graded “No Pass” (NP). The units earned will be counted in satisfaction of program requirements, but will be disregarded in determining a student’s grade point average.

Students who plan to transfer to a four-year institution should review the Pass/No Pass acceptance policy of the transfer institution prior to requesting this grade option.

Conditions:

1. Students may change from a ‘Letter Grade’ option to a ‘Pass/No Pass’ option during registration or up until the published deadline. To select a Pass/No Pass option for the course go to the ‘EDIT Class Enrollment Options’ page

on the mySDCCD portal. The deadline is listed in the class search details page when you click the calendar icon (“Deadlines”). After the Pass/No Pass Deadline, the ‘Letter Grade’ or ‘Pass/No Pass’ option may not be changed for that class.

- 2. No exceptions to this condition will be made. Petitions will not be accepted for exception to policy.**

Standards of Academic Progress

Students are in good academic standing when they have a 2.0 grade point average or higher and have completed more than 50% of units they have attempted. There are two kinds of probation and dismissal, one based upon GPA (Academic Performance) and the other based upon the number of units completed (Progress Performance).

Certain programs may have more stringent standards for academic progress. Consult the program director for more information.

Students enrolled in the core curriculum of medically-related programs will be governed by the probation and dismissal policies as outlined in the program policy manuals that reflect the tenets of safe medical practice and respond to program accreditation guidelines.

Academic Probation*

A student whose cumulative grade point average falls below a 2.0. A student on academic probation will return to good standing when his/her cumulative grade point average reaches or exceeds 2.0.

Academic Dismissal

A student on academic probation status for three consecutive primary semesters shall be dismissed. An enrollment hold will be placed on the student’s record.

Lack of Progress Probation*

A student shall be placed on lack of progress probation when the percentage of all (cumulative) units for which entries of “W,” “I,” and “NP” are recorded reaches or exceeds 50%.

Lack of Progress Dismissal

A student who has been placed on lack of progress probation for three consecutive primary semesters shall be dismissed and an enrollment hold placed on the student’s record when the percentage of units for which entries of “W,” “I,” and “NP” are recorded in a subsequent semester (not-cumulative), reaches or exceeds 50%.

* EXCEPTIONS:

Provisional, Joint Diploma and Special Admit High School students who receive a substandard grade (D, F, NP) or lack of progress (W, I, NP) in any class will be automatically dismissed. **PROBATIONARY STATUS WILL NOT APPLY!**

If dismissed:

- Special Admit High School students will not be permitted to re-enroll without approval from a high school counselor.
- Special Admit High School students who attempt/earn 12 units or more-must meet with a college counselor and complete a student academic contract.
- Joint Diploma students must see a JD counselor for readmission.

Readmission After Dismissal

Note: Dismissal status is determined based upon Progress Performance, Academic Performance, or a combination of both.

1st Dismissal

- Student must meet with a counselor and complete a Student Academic Contract.
- Readmission will be based upon meeting contract conditions.
- Student will lose registration priority until they return to ‘Good’ Standing.
- Student will lose eligibility for the California College Promise Grant (CCPG) until they return to ‘Good’ Standing or sit out one full academic year.

Academic Regulations

Course Repetition Policy

- No course in which a “C” or better grade has been earned may be repeated, unless students meet the following exception criteria:
 - Legally Mandated Training Requirement
 - Disabled Student as part of a Disability-Related Accommodation
 - Extenuating Circumstances beyond the control of the student (documentation required)
 - Significant Lapse of Time
- Students will not be allowed more than four enrollments in similar active participatory courses in Exercise Science and Visual and Performing Arts, regardless of grade or symbol earned.
- Academic renewal is not allowed for work experience courses.
- Each course in which an unsatisfactory grade (“D,” “F,” or “NP”) has been earned may be repeated twice without a petition. The course being repeated must be the same as the original course, not its equivalent. Only the newly-earned units and grades will be used in computing the grade point average.
- Students will not be allowed more than three enrollments in any course, regardless of grade or symbol earned.
- Academic renewal by course repetition for the second substandard course will only be applicable if the third attempt was completed Spring 2010 or later.

Course Repetition—Limitations on Active Participatory Courses

Due to changes in the regulations that govern community colleges, enrollment limits have been placed on certain types of active participatory courses that are related in content. Active participatory courses include courses in exercise science, visual arts, and performing arts (e.g., music, art, photography, theatre arts). These courses have been put into groups of courses related in content. A student may enroll in active participatory courses

in exercise science, visual arts, or performing arts that are in a group of related content for no more than four (4) courses in each content area (group). All grades, including “W’s,” will count toward the four course enrollment maximum for each group of courses. See the current listing of groups of courses related in content in the Documents section under “Course Repetition - Limitations on Active Participatory Courses” online at: <https://www.sdccd.edu/students/forms-and-documents.aspx>. For further information regarding course groupings, please consult with a counselor.

Academic Renewal Without Course Repetition

A student with substandard academic performance (GPA below 2.0) that is not reflective of present demonstrated ability may petition to have a maximum of 30 units of substandard performance disregarded in computation of grade point average.

The following conditions apply:

1. To be eligible for academic renewal without course repetition a student must:
 - a. have transcripts from all institutions attended officially on file;
 - b. successfully complete, in an accredited college or university, 15 units with a grade point average of at least 2.0 subsequent to the work to be disregarded. All courses taken during the semester/session in which the student reaches or exceeds the 15-unit minimum will be used in computing the 2.0 grade point average;
 - c. have one year elapsed since the coursework to be disregarded was completed.
2. A maximum of 30 may be disregarded.
3. If grade alleviation has already been applied two times for a course, the course will not be eligible for academic renewal without repetition and will remain on the academic record.
4. If previous action for academic renewal has been applied to coursework included in the semester to be disregarded, the course will not be eligible for academic renewal without repetition and will remain on the academic record.
5. Academic renewal without course repetition may be applied to substandard course(s)/semester(s) from another accredited institution.

6. The permanent academic record will be annotated in such a manner that the record of all work remains legible, ensuring a true and complete academic record.
7. Recalculation of the grade point average will be used toward qualification for graduation with honors.
8. Academic standing for the semester/session(s) will not be adjusted.
9. Once the petition is approved, the action is not reversible.
10. Once an associate degree has been posted to the student's academic record, academic renewal without course repetition may only be applied to classes with an evaluative symbol of "F". For more information see AP 4240 - Academic Renewal Without Course Repetition.

Course Repetition—Lapse of Time

Academic departments may require that courses for the major be completed within a specified number of years prior to the granting of the Associate Degree, Certificate of Achievement, or Certificate of Performance. Students may be required to repeat a course in which a satisfactory grade (A, B, C, or P) has already been earned. Students with questions about the applicability of previous coursework are advised to consult the department as early as possible.

Disability Support Programs and Services (DSPS) Repeat

Additional repetitions of a DSPS course to accommodate a student's disability-related needs may be permitted. For students with disabilities, course repetition is determined on an individual student basis. Contact the DSPS Office on campus for more information.

Mandated Training

Students who are required to meet a legally mandated training requirement as a condition of continued paid or volunteer employment may repeat a credit course any number of times. Students should complete the Mandated Training Course Repetition form.

For more information on course repetition, consult the Counseling Office at your college.

Academic Transcripts

Transcripts of Record

A student may order an official transcript of record online, in person, by mail or via fax.

To order an official transcript online, visit:

<https://www.sdccd.edu/students/transcripts/>.

Transcripts ordered online will be mailed within 1–2 business days.

To order a transcript in person, a student may complete a request at the Accounting Office at the college, or in person at the District Office of the Registrar, San Diego Community College District, Administrative Office, 3375 Camino del Rio South, San Diego, CA 92108.

Payment of fees must be made prior to processing a request for transcripts.

The following policy has been adopted by the San Diego Community College District Board of Trustees regarding the issuance of transcripts of record:

1. The first two transcripts will be issued without charge.
2. There will be a charge of \$5.00 for each additional transcript.
3. A \$10.00 special handling fee will be charged for all "RUSH" order transcript requests, including hand carried transcript requests ordered at the District Office. Rushed transcripts are processed immediately upon receipt. The special handling fee will be charged per request.

Requests will not be processed if students have outstanding holds preventing the release of the official transcript.

All official copies of the student's permanent record are in the Office of the Registrar. The Office of the Registrar will certify only to the accuracy of the records prepared by and issued directly from that office to another institution.

More information on ordering transcripts is available at: <https://www.sdccd.edu/students/transcripts/>.

Transfer of Credits

Transcripts of Prior Academic Credit

Students with credit from other colleges and universities must have official transcripts on file with the college.

- Official transcripts are those sent directly from one institution to another.
- Transcripts will only be accepted for one year after issuance.
- Transcripts brought in by students not in an official, sealed envelope will be considered unofficial.
- Transcripts are required even if prior credits do not appear relevant or if units were taken years ago.
- Students receiving veterans benefits must have transcripts on file within one semester.
- Certain programs require transcripts before admission to the program.
- Official transcripts from other institutions become the property of the college and will not be duplicated or returned.
- Official transcripts should be sent to the following address:

San Diego Community College District
3375 Camino del Rio South, Rm. 100
San Diego, CA 92108-3883

Upper Division Coursework

The San Diego Community College District (SDCCD) accepts all lower division courses taken at U.S. regionally accredited colleges. All lower division courses will be counted toward the Associate degree. Petitions to use upper division courses from U.S. regionally accredited colleges will only be accepted if needed to meet minimum Associate degree requirements for the major or district requirements. All petitions must be approved by the faculty in the discipline, or an appropriate designee, and/or college committee.

International Transfer Credits

Students who elect to submit transcripts from international colleges and universities must submit their transcripts to an approved credential evaluation service, and request a comprehensive

evaluation be sent to San Diego City, Mesa, or Miramar College. Credit for transfer courses taken at an institution outside the United States are evaluated dependent upon course equivalency and student learning outcomes on a course by course basis. Coursework from foreign institutions will not be made equivalent to SDCCD courses, and cannot be used to meet transfer major (ADT) or transfer general education requirements. International transcripts are not required. For more information contact the College Evaluations Office.

Credits from Other Regionally Accredited Institutions

Credits from other regionally accredited institutions may be accepted for transfer credit after evaluation by District evaluators. San Diego City College **will not** accept the transfer credits from another institution if the evaluation by the District and college evaluators determines that the credits received from another accredited institution do not meet the equivalent standards for a similar course taken at San Diego City College.

Credit for Prior Learning

(Administrative Procedure AP-3900.4)

Credit for Prior Learning (CPL) is college credit awarded for validated college-level skills and knowledge gained outside of a college classroom. Credit for prior learning may be earned for eligible courses approved by the faculty for students who satisfactorily pass an authorized assessment. Authorized assessments may include the evaluation of approved external standardized examinations, military service/training, the evaluation of industry recognized credentials, student-created portfolios, and credit by examination. Students should meet with a Counselor for specific information regarding CPL and the petition process. Details may be found in administrative procedure 5235.

Students may demonstrate proficiency in a course eligible for Credit for Prior Learning and receive college credit through the approved alternative methods for awarding credit listed below:

- Achievement of a satisfactory score on an Advanced Placement (AP) examination
- Achievement of a satisfactory score on a higher-level International Baccalaureate (IB) examination

- Achievement of a satisfactory score on the College Level Examination Program (CLEP)
- Achievement of a satisfactory score on DANTES Subject Standardization Test (DANTES/DSST)
- Satisfactory completion of an institutional examination, known as Credit by Examination, administered by the college in lieu of completion of an active course listed in the current college catalog
- Evaluation of Military Transcripts
- Evaluation of industry recognized credential documentation
- Evaluation of student-created portfolios

Determination of Eligibility for Credit for Prior Learning

- The course is on the approved credit for prior learning list at the college
- The student must have previous academic history (previously earned credit or noncredit from the District) or be currently enrolled in a college at the San Diego Community College District and in good standing
- All student holds must be cleared prior to verification of eligibility
- Official transcripts from all prior colleges are on file
- Official test scores must be submitted for the processing of AP, IB, CLEP, and/or DANTES
- A student education plan is on file
- The student is not currently enrolled in the course
- The student has not received credit on their academic record(s) for an equivalent course

High school students enrolled in CTE transitions should refer to page 84, High School Courses for College Credit (Credit by Examination)

Limitations on Credit for Prior Learning

- Credits acquired by Credit for Prior Learning are not applicable to meeting of such unit load requirements as Selective Service deferment, Veterans, or Social Security benefits.
- Credits acquired by Credit for Prior Learning shall not be counted in determining the 12 semester hours of credit in residence required for an Associate degree.

Note: CPL may be used to fulfill the District requirement for six units in the major.

- Credit granted by SDCCD does not necessarily transfer to other institutions. Final determination regarding transfer of credit rests with the receiving institution. Students intending to transfer to a four-year institution should consult a counselor or the individual university regarding their credit for prior learning policy.
- Credit awarded through credit for prior learning may not be used for grade alleviation.

Students may petition for credit for prior learning at <https://www.sdccd.edu/students/forms-and-documents.aspx>.

Academic Credit for AP, IB, CLEP, and DANTES/DSST (Administrative Procedure AP-3900.4)

The tables below indicate the score necessary, the credit allowed, and the area(s) satisfied for each of the examinations accepted for credit.

You may view a full copy of the policy by accessing the following website: <https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>.

In addition to the CPL requirements listed in this section, limitations on AP, IB, CLEP, and DANTES/DSST include:

- Grades are not assigned, nor is the credit used in calculating grade point average.
- Credit awarded through credit for prior learning may not be used for grade alleviation.

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Art History 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C IGETC: 3 semester units towards Area 3A or 3B	SDCCD: ARTF 110 <u>or</u> ARTF 111
Art History 3, 4, or 5 <i>Exam taken Fall 2009 or later</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C1 <u>or</u> C2 IGETC: 3 semester units towards Area 3A <u>or</u> 3B	SDCCD: ARTF 110 <u>or</u> ARTF 111
Biology 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 4 semester units towards Area 5 CSU GE: 4 semester units towards Area B2 & B3 IGETC: 4 semester units towards Area 5B & 5C	SDCCD: N/A
Calculus AB¹ 3, 4 or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A	SDCCD: N/A
Calculus BC/AB subscore¹ 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A	SDCCD: N/A
Calculus BC¹ 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A	SDCCD: N/A
Chemistry 3 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 6 semester units towards Area 5 CSU GE: 6 semester units towards Area B1 & B3 IGETC: 4 semester units towards Area 5A & 5C	SDCCD: CHEM 200
Chemistry 4 or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 6 semester units towards Area 5 CSU GE: 6 semester units towards Area B1 & B3 IGETC: 4 semester units towards Area 5A & 5C	SDCCD: CHEM 200 & CHEM 201

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Chemistry 3 <i>Exam taken Fall 2009 or later</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 4 semester units towards Area 5 CSU GE: 4 semester units towards Area B1 & B3 IGETC: 4 semester units towards Area 5A & 5C	SDCCD: CHEM 200
Chemistry 4 or 5 <i>Exam taken Fall 2009 or later</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 4 semester units towards Area 5 CSU GE: 4 semester units towards Area B1 & B3 IGETC: 4 semester units towards Area 5A & 5C	SDCCD: CHEM 200 & CHEM 201
Chinese Language & Culture 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B and Area 6A Competency	SDCCD: N/A
Comparative Government & Politics 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: POLI 103
Computer Science A¹ 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Computer Science AB¹ 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Computer Science Principles¹ 3, 4, or 5 <i>Exam taken prior to Fall 2019</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: N/A CSU GE: 3 semester units towards Area N/A IGETC: N/A	SDCCD: N/A
Computer Science Principles¹ 3, 4, or 5 <i>Exam taken between Fall 2019 and Fall 2022</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Computer Science Principles¹ 3, 4, or 5 <i>Exam taken Fall 2022 or later</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
English Language and Composition 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units ²	SDCCD GE: 3 semester units towards Area 1A CSU GE: 3 semester units towards Area A2 IGETC: 3 semester units towards Area 1A	SDCCD: ENGL 101
English Literature and Composition 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units ²	SDCCD GE: 6 semester units towards Area 1A & 3 CSU GE: 6 semester units towards Area A2 & C2 IGETC: 3 semester units towards Area 1A <u>or</u> 3B	SDCCD: ENGL 101
Environmental Science 3 <i>Exam taken prior to Fall 2009</i>	SDCCD: 4 semester units CSU: 4 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 4 semester units towards Area 5 CSU GE: 4 semester units towards Area B1 & B3 <u>or</u> Area B2 & B3 ⁸ IGETC: 3 semester units towards Area 5A & 5C	SDCCD: N/A
Environmental Science 4 or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 4 semester units CSU: 4 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 4 semester units towards Area 5 CSU GE: 4 semester units towards Area B1 & B3 <u>or</u> Area B2 & B3 ⁸ IGETC: 3 semester units towards Area 5A & 5C	SDCCD: BIOL 120
Environmental Science 3 <i>Exam taken Fall 2009 or later</i>	SDCCD: 4 semester units CSU: 4 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 4 semester units towards Area 5 CSU GE: 4 semester units towards Area B1 & B3 ⁸ IGETC: 3 semester units towards Area 5A & 5C	SDCCD: N/A
Environmental Science 4 or 5 <i>Exam taken Fall 2009 or later</i>	SDCCD: 4 semester units CSU: 4 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 4 semester units towards Area 5 CSU GE: 4 semester units towards Area B1 & B3 ⁸ IGETC: 3 semester units towards Area 5A & 5C	SDCCD: BIOL 120
European History 3, 4, or 5 <i>Exam taken prior to Spring 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 <u>or</u> 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 3B <u>or</u> 4	SDCCD: N/A

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
European History 3, 4, or 5 <i>Exam taken after Spring 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 <u>or</u> 4 CSU GE: 3 semester units towards Area C2 <u>or</u> D IGETC: 3 semester units towards Area 3B <u>or</u> 4	SDCCD: N/A
French Language 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 6 semester units towards Area 3 CSU GE: 6 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
French Language 3, 4, or 5 <i>Exam taken between Fall 2009 and Fall 2011</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
French Language and Culture 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
French Literature 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
German Language 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 6 semester units towards Area 3 CSU GE: 6 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
German Language 3, 4, or 5 <i>Exam taken between Fall 2009 and Fall 2011</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
German Language and Culture 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
Human Geography 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: GEOG 102
Italian Language and Culture 3	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: ITAL 101
Italian Language and Culture 4 or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: ITAL 102
Japanese Language and Culture 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
Latin Literature 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
Latin 3, 4 or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Latin: Vergil 3, 4, or 5 <i>Exam taken prior to Fall 2012</i>	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B and Area 6A Competency	SDCCD: N/A
Macroeconomics 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: ECON 120
Microeconomics 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: ECON 121
Music Theory 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C1 IGETC: N/A	SDCCD: N/A
Music Theory 3, 4, or 5 <i>Exam taken between Fall 2009 and Fall 2018</i>	SDCCD: 6 semester units CSU: N/A UC: 8 quarter/5.3 semester units	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Music Theory 3, 4, or 5 <i>Exam taken between Fall 2018 - Spring 2023</i>	SDCCD: 3 semester units CSU: N/A UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: N/A UC: N/A	SDCCD: N/A
Music Theory 3, 4 or 5 <i>Exam taken after Spring 2023</i>	SDCCD: N/A CSU: N/A UC: 8 quarter/5.3 semester units	SDCCD: N/A CSU: N/A UC: N/A	SDCCD: N/A
Physics B 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units ³ CSU: 6 semester units ³ UC: 8 quarter/5.3 semester units ⁵	SDCCD GE: 6 semester units towards Area 5 ³ CSU GE: 6 semester units towards Area B1 & B3 ³ IGETC: 4 semester units towards Area 5A & 5C	SDCCD: N/A
Physics B 3, 4, or 5 <i>Exam taken between Fall 2009 and Fall 2015</i>	SDCCD: 6 semester units ³ CSU: 6 semester units ³ UC: 8 quarter/5.3 semester units ⁵	SDCCD GE: 4 semester units towards Area 5 ³ CSU GE: 4 semester units towards Area B1 & B3 ³ IGETC: 4 semester units towards Area 5A & 5C	SDCCD: N/A

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Physics 1 3, 4, or 5	SDCCD: 4 semester units ³ CSU: 4 semester units ³ UC: 8 quarter/5.3 semester units ⁵	SDCCD GE: 4 semester units towards Area 5 ³ CSU GE: 4 semester units towards Areas B1 & B3 ³ IGETC: 4 semester units towards Area 5A & 5C	SDCCD: N/A
Physics 2 3, 4, or 5	SDCCD: 4 semester units ³ CSU: 4 semester units ³ UC: 8 quarter/5.3 semester units ⁵	SDCCD GE: 4 semester units towards Area 5 ³ CSU GE: 4 semester units towards Area B1 & B3 ³ IGETC: 4 semester units towards Area 5A & 5C	SDCCD: N/A
Physics C (electricity / magnetism) 3, 4, or 5	SDCCD: 4 semester units ³ CSU: 4 semester units ³ UC: 4 quarter/2.6 semester units ⁵	SDCCD GE: 4 semester units towards Area 5 ³ CSU GE: 4 semester units towards Areas B1 & B3 ³ IGETC: 3 semester units towards Areas 5A & 5C ⁴	SDCCD: N/A
Physics C (mechanics) 3, 4, or 5	SDCCD: 4 semester units ³ CSU: 4 semester units ³ UC: 4 quarter/2.6 semester units ⁵	SDCCD GE: 4 semester units towards Area 5 ³ CSU GE: 4 semester units towards Areas B1 & B3 ³ IGETC: 3 semester units towards Areas 5A & 5C ⁴	SDCCD: N/A
Precalculus 3, 4 or 5	SDCCD: 6 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A.	SDCCD: N/A
Psychology 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: PSYC 101
Seminar 3, 4, 5	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Spanish Language 3, 4, or 5 <i>Exam taken prior to Spring 2014</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 6 semester units towards Area 3 CSU GE: 6 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Spanish Language and Culture 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
Spanish Literature 3, 4, or 5 <i>Exam taken prior to Spring 2013</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 6 semester units towards Area 3 CSU GE: 6 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
Spanish Literature and Culture 3, 4, or 5	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B <u>and</u> Area 6A Competency	SDCCD: N/A
Statistics 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A	SDCCD: MATH 119
Studio Art: Drawing 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 8 quarter/5.3 semester units ⁶	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: ARTF 150A & ARTF 155A
Studio Art: 2-D Design 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 8 quarter/5.3 semester units ⁶	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Studio Art: 3-D Design 3, 4, or 5	SDCCD: 3 semester units CSU: 3 semester units UC: 8 quarter/5.3 semester units ⁶	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
U.S. Government & Politics 3, 4, or 5 <i>Exam taken prior to fall 2009</i>	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: POLI 101

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
U.S. Government & Politics 3, 4, or 5 <i>Exam taken after Fall 2009</i>	SDCCD: 3 semester units CSU: 3 semester units UC: 4 quarter/2.6 semester units	SDCCD GE: 3 semester units towards Area 4 & US-2 ⁷ CSU GE: 3 semester units towards Area D & US-2 ⁷ IGETC: 3 semester units towards Area 4 & US-2 ⁷	SDCCD: POLI 101
U.S. History 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: HIST 109
U.S. History 3, 4, or 5 <i>Exam taken after Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 & US-1 <u>or</u> Area 4 & US-1 ⁷ CSU GE: 3 semester units towards Area C2 & US-1 <u>or</u> Area D & US-1 ⁷ IGETC: 3 semester units towards Area 3B & US-1 <u>or</u> Area 4 & US-1 ⁷	SDCCD: HIST 109
World History 3, 4, or 5 <i>Exam taken prior to Fall 2009</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: HIST 101
World History 3, 4, or 5 <i>Exam taken between Fall 2009 and Spring 2022</i>	SDCCD: 6 semester units CSU: 3 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 <u>or</u> 4 CSU GE: 3 semester units towards Area C2 <u>or</u> D IGETC: 3 semester units towards Area 3B <u>or</u> 4	SDCCD: HIST 101
World History 3, 4, or 5 <i>Exam taken after Spring 2022</i>	SDCCD: 3 semester units CSU: 3 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 <u>or</u> 4 CSU GE: 3 semester units towards Area C2 <u>or</u> D IGETC: 3 semester units towards Area 3B <u>or</u> 4	SDCCD: HIST 101

Advanced Placement Test (AP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
<p>* Credit may not be awarded for exams which duplicate credit for the same content earned through other means.</p> <ol style="list-style-type: none"> 1. If a student passes more than one exam in calculus, only one exam may be applied to UC/CSU baccalaureate or SDCCD associate degree/certificate requirements. If a student passes more than one exam in computer science, only one exam may be applied to UC/CSU baccalaureate or SDCCD associate degree/certificate requirements. 2. Students passing both English AP exams will receive a maximum of 8 quarter units / 5.3 semester units toward UC baccalaureate degree requirements. 3. Students passing more than one AP exam in physics will receive a maximum of 6 units of credit toward CSU baccalaureate or SDCCD associate degree / certificate requirements and a maximum of 4 units of credit toward CSU GE certification or SDCCD associate degree GE requirements. 4. Students passing either of the Physics C exams will be required to complete at least 4 additional semester units in IGETC Area 5 coursework to meet the IGETC Area 5 unit requirement. 5. Students passing more than one physics AP exam will receive a maximum of 8 quarter units / 5.3 semester units toward UC baccalaureate degree requirements. 6. Students passing more than one AP exam in studio art will receive a maximum of 8 quarter units / 5.3 semester units of credit toward UC baccalaureate degree requirements. 7. Students who have completed the American Institutions requirement except for the California government portion must complete one course approved in Area US-3. 8. Students who pass AP Environmental Science earn 4 units of credit. Tests prior to Fall 2009 may apply to either B1+B3 or B2+B3 of GE Breadth. Fall of 2009 or later, those credits may only apply to B1+B3. 			
<p>To request an official transcript, write to: PSAT/NMSQT Office, P.O. Box 6720, Princeton, NJ, 08541-6720</p>			

International Baccalaureate (IB) Credit

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Biology 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B2 IGETC: 3 semester units towards Area 5B	SDCCD: N/A
Chemistry 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B1 IGETC: 3 semester units towards Area 5A	SDCCD: N/A
Economics 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: ECON 120 & ECON 121
Geography 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: N/A

International Baccalaureate (IB) Credit

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
History (any region) 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 <u>or</u> 4 CSU GE: 3 semester units towards Area C2 <u>or</u> D IGETC: 3 semester units towards Area 3B <u>or</u> 4	SDCCD: N/A
Language A1 (any language) 4 Higher Level <i>Exam taken prior to Fall 2013</i>	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Language A1 (any language) 5-7 Higher Level <i>Exam taken prior to Fall 2013</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B ¹	SDCCD: N/A
Language A2 (any language) 4 Higher Level <i>Exam taken prior to Fall 2013</i>	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Language A2 (any language) 5-7 Higher Level <i>Exam taken prior to Fall 2013</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B ¹	SDCCD: N/A
Language A Literature 4 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Language A Literature 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B ¹	SDCCD: N/A
Language A Language and Literature 4 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Language A Language and Literature 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: 3 semester units towards Area 3B ¹	SDCCD: N/A

International Baccalaureate (IB) Credit

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Language B (any language)² 4 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Language B (any language)² 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: N/A CSU GE: N/A IGETC: Area 6A Competency	SDCCD: N/A
Mathematics 4 Higher Level <i>Exams taken prior to Fall 2022</i>	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
Mathematics 5-7 Higher Level <i>Exams taken prior to Fall 2022</i>	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A	SDCCD: N/A
Mathematics 4 Higher Level: Analysis and Approaches	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
Mathematics 5-7 Higher Level: Analysis and Approaches	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A	SDCCD: N/A
Mathematics 4 Higher Level: Applications and Interpretation	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
Mathematics 5-7 Higher Level: Applications and Interpretation	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: 3 semester units towards Area 2A	SDCCD: N/A
Physics 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B1 IGETC: 3 semester units towards Area 5A	SDCCD: N/A

International Baccalaureate (IB) Credit

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Psychology 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: 3 semester units towards Area 4	SDCCD: N/A
Theatre 4 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C1 IGETC: N/A	SDCCD: N/A
Theatre 5-7 Higher Level	SDCCD: 6 semester units CSU: 6 semester units UC: 8 quarter/5.3 semester units	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C1 IGETC: 3 semester units towards Area 3A	SDCCD: N/A
* Credit may not be awarded for exams which duplicate credit for the same content earned through other means.			
1. Students who pass the Language A or A1 Higher Level exam in a language other than English with a score of 5 or higher will also receive credit for IGETC area 6A.			
2. If a student passes more than one test in the same language other than English (e.g., two exams in French) then only one examination may be applied.			
Credit is not awarded for the following exams: Art.			
IB transcripts may be requested from your high school.			

College Level Examination Program (CLEP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
American Government 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: N/A	SDCCD: N/A
American Literature 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Analyzing and Interpreting Literature 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A

College Level Examination Program (CLEP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Biology 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B2 IGETC: N/A	SDCCD: N/A
Calculus 50 or higher <i>Exams taken after Spring 2010</i>	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
Chemistry 50 or higher <i>Exams taken after Spring 2010</i>	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B1 IGETC: N/A	SDCCD: N/A
College Algebra 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
College Algebra - Trigonometry 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
College Composition 50 or higher	SDCCD: N/A CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
College Composition - Modular 50 or higher	SDCCD: N/A CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
College Mathematics 50 or higher	SDCCD: N/A CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
English Composition (no Essay) 50 or higher	SDCCD: N/A CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
English Composition with Essay 50 or higher	SDCCD: N/A CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
English Literature 50 or higher <i>Exam taken prior to Fall 2011</i>	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A

College Level Examination Program (CLEP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Financial Accounting 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
French – Level I 50 or higher	SDCCD: 6 semester units ¹ CSU: 6 semester units ¹ UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
French – Level II 59 or higher <i>Exam taken prior to Fall 2015</i>	SDCCD: 12 semester units ¹ CSU: 12 semester units ¹ UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
French – Level II 59 or higher	SDCCD: 9 semester units ¹ CSU: 9 semester units ¹ UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Freshman College Composition 50 or higher	SDCCD: N/A CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
German – Level I 50 or higher	SDCCD: 6 semester units ¹ CSU: 6 semester units ¹ UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
German – Level II 60 or higher <i>Exam taken prior to Fall 2015</i>	SDCCD: 12 semester units ¹ CSU: 12 semester units ¹ UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
German – Level II 60 or higher	SDCCD: 9 semester units ¹ CSU: 9 semester units ¹ UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
History of the United States I 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 & US-1 ² CSU GE: 3 semester units towards Area D & US-1 ² IGETC: N/A	SDCCD: N/A
History of the United States II 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 & US-1 ² CSU GE: 3 semester units towards Area D & US-1 ² IGETC: N/A	SDCCD: N/A

College Level Examination Program (CLEP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Human Growth and Development 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area E IGETC: N/A	SDCCD: N/A
Humanities 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Information Systems and Computer Applications 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Introduction to Educational Psychology 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Introductory Business Law 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Introductory Psychology 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: N/A	SDCCD: N/A
Introductory Sociology 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: N/A	SDCCD: N/A
Natural Sciences 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 5 CSU GE: 3 semester units towards Area B1 <u>or</u> B2 IGETC: N/A	SDCCD: N/A
Pre-Calculus 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A
Principles of Accounting 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A

College Level Examination Program (CLEP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Principles of Macroeconomics 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: N/A	SDCCD: N/A
Principles of Management 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Principles of Marketing 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Principles of Microeconomics 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: N/A	SDCCD: N/A
Social Sciences and History 50 or higher	SDCCD: N/A CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Spanish – Level I 50 or higher	SDCCD: 6 semester units ¹ CSU: 6 semester units ¹ UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Spanish – Level II 63 or higher <i>Exam taken prior to Fall 2015</i>	SDCCD: 12 semester units ¹ CSU: 12 semester units ¹ UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Spanish – Level II 63 or higher	SDCCD: 9 semester units ¹ CSU: 9 semester units ¹ UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Spanish with Writing I 50 or higher	SDCCD: 6 semester units ¹ CSU: 6 semester units ¹ UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Spanish with Writing II 63 or higher	SDCCD: 9 semester units ¹ CSU: 9 semester units ¹ UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: 3 semester units towards Area C2 IGETC: N/A	SDCCD: N/A
Trigonometry 50 or higher <i>Exam taken prior to Fall 2006</i>	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: 3 semester units towards Area B4 IGETC: N/A	SDCCD: N/A

College Level Examination Program (CLEP)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Western Civilization I 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 3 <u>or</u> 4 CSU GE: 3 semester units towards Area C2 <u>or</u> D IGETC: N/A	SDCCD: N/A
Western Civilization II 50 or higher	SDCCD: 3 semester units CSU: 3 semester units UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: 3 semester units towards Area D IGETC: N/A	SDCCD: N/A
* Credit may not be awarded for exams which duplicate credit for the same content earned through other means.			
<ol style="list-style-type: none"> 1. If a student passes more than one exam in the same language other than English (e.g. two exams in French), then only one examination may be applied toward CSU baccalaureate degree requirements. 2. Students who have completed the American Institutions requirement except for the California government portion must complete one course approved in Area US-3. 			
Credit is not awarded for the following exams: College Composition, College Composition Modular, College Mathematics, English Composition (with or without Essay), Freshman College Composition and Social Sciences and History.			
To request an official CLEP transcript, write to: Educational Testing Service, P.O. Box 6600, Princeton, NJ 08541-6600			

DANTES Subject Standardized Test (DANTES/DSST)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
A History of the Vietnam War 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Art of the Western World 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Astronomy 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 5 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Business Ethics & Society 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Business Mathematics 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Criminal Justice 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A

DANTES Subject Standardized Test (DANTES/DSST)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Environment and Humanity 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Ethics in America 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Foundations of Education 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Fundamentals College Algebra 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Fundamentals of Counseling 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Fundamentals of Cybersecurity 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Here's to Your Health 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: Health Education District Requirement CSU GE: N/A IGETC: N/A	SDCCD: N/A
Human Cultural Geography 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Human Resources Management 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Introduction to Business 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Introduction to Computing 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Introduction to Law Enforcement 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 4 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Introduction to World Religions 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 3 CSU GE: N/A IGETC: N/A	SDCCD: N/A

DANTES Subject Standardized Test (DANTES/DSST)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
Lifespan Developmental Psychology 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Management Information Systems 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Organizational Behavior 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Personal Finance 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Principles of Finance 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Principles of Physical Science 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 5 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Principles of Public Speaking 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Principles of Statistics 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: 3 semester units towards Area 2 CSU GE: N/A IGETC: N/A	SDCCD: N/A
Principles of Supervision 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Substance Abuse (formerly Drug & Alcohol Abuse) 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
Technical Writing 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
The Civil War and Reconstruction 400 or higher	SDCCD: 3 semester units CSU: N/A UC: N/A	SDCCD GE: N/A CSU GE: N/A IGETC: N/A	SDCCD: N/A
* Credit may not be awarded for exams which duplicate credit for the same content earned through other means.			

DANTES Subject Standardized Test (DANTES/DSST)

EXAM AND REQUIRED SCORE	UNIT REQUIREMENTS FULFILLED	GENERAL EDUCATION (GE) REQUIREMENTS FULFILLED	MAJOR REQUIREMENTS FULFILLED
To request an official DANTES transcript, write to: PROMETRIC ATTN: DSST Program, 1260 Energy Lane, St. Paul, MN 55108 Phone: 877-471-9860 (toll free) or 651-603-3011 or request transcripts at http://getcollegecredit.com/resources			

Credit by Examination (Administrative Procedure AP-3900.1)

Students interested in Credit for Prior Learning using credit by examination shall receive credit as recommended by the appropriate department chair or faculty designee. The term “examination” means any written, oral or performance standards determined by the individual departments. Students must meet specific credit for prior learning criteria listed on page 61. Approved list of courses are available in the College Evaluations Office.

Students may petition for credit for prior learning at <https://www.sdccd.edu/students/forms-and-documents.aspx>.

You may view a full copy of the policy by accessing the following website: <https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>.

See eligibility requirements and limitations on credit for prior learning listed on page 61.

High School and Noncredit Courses for College Credit (Credit by Examination) (Administrative Procedure AP-3900.1)

As part of an early college program called Career Technical Education (CTE) Transitions (formerly known as Tech Prep), high school and noncredit students may earn college credit equivalent to the courses in the table on page 84. To receive credit, students must be enrolled in a high school or noncredit CTE course tied to an active agreement, meet overall course and final assessment grade requirements, and complete related paperwork including the submission of a SDCCD online college application. Full eligibility and process requirements are available online. For questions and more information, contact the CTE Transitions Program at 619-388-6572.

See Limitations on credit for prior learning listed on page 61.

CTE (Career Technical Education) Transitions High School Credit by Examination Active Agreements

High School to San Diego City College

For the most up-to-date listing of active agreements and student requirements, please go online at:
<https://bit.ly/2UPkEUG>

San Diego City College Program Area	San Diego City College Course	San Diego City College Units	High School Course (District)
Art – Graphic Design	DSGN 102	3	Graphic Design 1,2 or Graphic Design 3,4 or Honors Graphic Design 3,4 (SDUSD)
Child Development	CHIL 160	2	Developmental Psychology of Children 1-2 or Developmental Psychology of Children 1,2 (SDUSD)
Child Development	CHIL 161	2	Developmental Psychology of Children 3-4 or Developmental Psychology of Children 3,4 (SDUSD)
Drama	Drama 123	3	Tech Theatre 1,2 or Tech Theatre 3,4 (SDUSD)
Engineering Technology	ENGN 130	3	Introduction to Design 1,2 (SDUSD)
Film, Journalism, and Media Production	FJMP 111	3	Cinematic Arts 1,2 (SDUSD)
Information, Network, and Web Technologies	INWT 100 INWT 101	4 3	Cybersecurity Linked Learning 1,2 (SDUSD)
Information, Network, and Web Technologies	INWT 140	3	Cybersecurity 3,4 (SDUSD)
Photography	PHOT 143	3	Photographic Imaging 1,2 (SDUSD)
Machine Technology	MACT 140	4	PLTW Computer Integrated Manufacturing 1,2 or PLTW Computer-Integrated Manufacturing Honors 1,2 (SDUSD)

CTE (Career Technical Education) Transitions High School Credit by Examination Active Agreements

High School to San Diego City College

For the most up-to-date listing of active agreements and student requirements, please go online at:
<https://bit.ly/2UPkEUG>

San Diego City College Program Area	San Diego City College Course	San Diego City College Units	High School Course (District)
Manufacturing Engineering Technology	MFET 101	3	Principles of Engineering 1,2 or Honors PLTW Principles of Engineering 1,2 (SDUSD)
Photography	PHOT 243	3	Photographic Imaging 3,4 (SDUSD)

San Diego College of Continuing Education to San Diego City College CTE Transitions Credit by Examination

For the most up-to-date listing of active agreements and student requirements, please go online at:
<https://bit.ly/2S51Bqx>

San Diego City College Program Area	San Diego City College Course	San Diego City College Units	San Diego College of Continuing Education Course
Air Conditioning, Refrigeration, and Environmental Control Technology	AIRE 100 and AIRE 103	Total of 6	MECT 431 and MECT 432
Art–Graphic Design	DSGN 102	3	COMM 660, COMM 661, COMM 662, and COMM 663
Business Information Technology	PHOT 143 PHOT 180	3 3	COMM 650 COMM 651 and 652
Business Information Worker	CBTE 140	2	OFSY 575
Child Development	CHIL 160	2	HMDV 581
Child Development	CHIL 176	3	HMDV 575A and HMDV 575B

San Diego College of Continuing Education to San Diego City College CTE Transitions Credit by Examination

For the most up-to-date listing of active agreements and student requirements, please go online at:
<https://bit.ly/2S51Bqx>

San Diego City College Program Area	San Diego City College Course	San Diego City College Units	San Diego College of Continuing Education Course
Child Development	CHIL 291A	1	HMDW 594
	CHIL 291B	1	HMDV 591
	CHIL 291C	1	HMDV 586
	CHIL 291D	1	HMDV 582
Electronics	ELDT 124 and ELDT 124L	Total of 5	ELRN 451
Electronics	ELDT 143 and ELDT 143L	Total of 4.5	ELRN 452
Film, Journalism, and Media Production	FJMP 110	3	COMM 667 and COMM 668
Information, Network, and Web Technologies	INWT 120	4	COMP 608
	INWT 140	3	COMP 609

Acceptance and Application of Military Credit (Administrative Procedure AP-3900.3 and 3900.5)

San Diego City, Mesa, and Miramar Colleges apply credit for educational experience completed during military service toward the associate degree in accordance with the associate/baccalaureate credit recommendations contained in "A Guide to the Evaluation of Educational Experiences in the Armed Services" published by the American Council on Education (ACE). Students must submit documentation of educational experiences during military service. Acceptable documents include:

- Joint Services Transcript
- AARTS or SMART Transcript
- DD-214
- DD-295
- NAV/PERS 1070/604
- DD-2586
- National Guard Bureau (NGB) Form 22E
- Coast Guard Institute
- Community College of the Air Force (CCAF)

Military service credit may be granted upon verification of six (6) months of continuous active duty, or completion of basic training for National Guard/Reservists. Four (4) units of credit may be awarded to meet the district graduation requirements in Health and PE. Three (3) of those units may also be used to satisfy Area E of the CSU General Education Breadth pattern.

Other educational experiences during military service may also fulfill additional major, general education, or elective degree requirements. More specific information is available in the San Diego Community College District Evaluations Office.

You may view a full copy of the policy by accessing the following website: <https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>.

U.S. Air Force and U.S. Army ROTC Programs

Under the provisions of a special agreement, students may participate in the Army or Air Force Reserve Officers Training Program (ROTC) at SDSU. San Diego City, Mesa and Miramar College students may enroll and attend ROTC classes at SDSU by

contacting the SDSU Military Science Department 619-594-5545. Financial assistance may also be available. The credits earned in these classes may be transferred as electives to meet the degree requirements of City, Mesa and Miramar Colleges.

See eligibility requirements and limitations on credit for prior learning listed on page 61.

Servicemembers Opportunity Colleges Degree Network System (SOC DNS)

San Diego City College is a member of the Servicemembers Opportunity Colleges Degree Network System (SOC DNS). As member, the college provides educational assistance to active duty service members and agrees to accept credit for educational experiences during military service as recommended by the American Council on Education (ACE). In addition, the college accepts credit from other non-traditional sources such as DANTES and CLEP examinations. The San Diego Community College District is committed to military personnel who may choose to participate in the SOC DNS Program network through the campus of San Diego City College. SOC DNS was established to better serve highly mobile service members and their families. For more information on these programs, contact the Military Education advisor at the following locations:

Marine Corps Air Station Miramar 858-536-4329 (MCAS)

Industry Recognized Credentials

Students interested in Credit for Prior Learning using industry recognized credential(s) shall receive credit as recommended by the appropriate department chair or faculty designee. Approved list of courses are available in the College Evaluations Office.

Students may petition for credit for prior learning: at <https://www.sdccd.edu/students/forms-and-documents.aspx>.

See eligibility requirements and limitations on credit for prior learning listed on page 61.

Student-Created Portfolio Assessment

Students interested in Credit for Prior Learning using a student-created portfolio shall receive credit as recommended by the appropriate department chair

or faculty designee. Approved list of courses are available in the College Evaluations Office.

Students may petition for credit for prior learning: student-created portfolio assessment at <https://www.sdccd.edu/students/forms-and-documents.aspx>.

See eligibility requirements and limitations on credit for prior learning listed on page 61.

Support Services, Programs and Disability Discrimination Procedures for Students with Disabilities

(Board of Trustees Policy – BP 5140)

The District is committed to educational opportunity for students with disabilities and will comply with all provisions of Section 504 of the Rehabilitation Act of 1973, the Americans with Disability Act, as amended, and Section 508 of the Rehabilitation Act of 1973. Students with disabilities will be reasonably accommodated in compliance with federal and state requirements in all applicable programs of the District. Disability Support Programs and Services (DSPS) shall be primarily responsible for authorizing academic adjustments, auxiliary aids, services, or instruction that facilitate equal educational opportunities for disabled students who can benefit from instruction as required by federal and state laws. The fundamental principles of nondiscrimination and accommodation in academic programs provide that:

1. DSPS services will be available to students with verified disabilities, including but not limited to, reasonable accommodations, academic adjustments, disability management, vocational and academic counseling, technology accessibility, accessible facilities, equipment, instructional programs;
2. No student with a qualified disability will, because of the disability, be excluded from participation in, be denied the benefit of, or otherwise be subjected to discrimination under any post-secondary education activity or program; and
3. The institution will create an educational environment where disabled students have equal access to instruction, including those taking place in work preparation and clinical

settings, without compromising the essential components of the course, educational program, or degree.

The District will respond in a timely manner to academic accommodation requests. See Administrative Procedure, AP 5140, Support Services and Disability Discrimination Procedures for Students with Disabilities, for implementation of this policy, which provides for an interactive and individualized review of each request.

The District identifies DSPS, or the 504 Officer, as the office or individual to determine academic accommodations under Section 504 of the 1973 Rehabilitation Act. DSPS will notify the appropriate administrator when unable to resolve a student complaint about the provision of a requested accommodation.

The Site Compliance Officer (SCO) is identified as the campus individual to handle all discrimination grievances under the Americans with Disabilities Act and can also be found through the District's Equal Employment Opportunity and Diversity Office.

All programs and services of the District, including the DSPS program, shall conform to all requirements established by the relevant law and regulations.

You may view a full copy of the Student Services policy and administrative procedure by accessing the following website: <https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>.

Students with verified disabilities who may require academic accommodations or auxiliary aids are strongly recommended to contact the Disability Support Programs and Services (DSPS) Department, Room A-122, 619-388-3513, www.sdcity.edu/dsps and complete the orientation procedures well before classes begin to ensure timely provision of services. Students are encouraged to identify themselves to the appropriate instructors to discuss the details and time lines necessary to provide appropriate accommodations. Students enrolled in online courses are encouraged to contact the college DSPS department where the courses are being offered to request academic accommodation. Questions regarding academic accommodations and disability discrimination, including how to file a complaint or a formal grievance with regards to academic accommodations should be directed to the college 504 Officer, Poppy Fitch at 858-847-5045, District Office in room 275.

Students may file a complaint with the Chancellor of the California Community Colleges within thirty calendar days of the event or following the completion of the college Accommodation Grievance process. (<http://californiacommunitycolleges.cccco.edu>).

Students may file a complaint with the Federal Office of Civil Rights in San Francisco, California, if he or she believes that the college or one of its representatives is violating his or her rights. (<https://www2.ed.gov/about/offices/list/ocr/docs/howto.html>)

Exclusion from Classes

A student may be excluded from class or the college whenever the student:

1. Exhibits behavior which interferes with the educational process. An instructor may remove a student from two class sessions for disruptive behavior. (Refer to Policy 5500: Student Rights, Responsibilities, Campus Safety and Administrative Due Process). You may view a full copy of the policy by accessing the following website: <https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>; or
2. Is found to have a communicable disease which requires isolation pursuant to a directive from the County Department of Public Health.

Minor Children on Campus

Minor children who are not enrolled are not permitted in any classroom at any time.

Minor children who are not enrolled are not to be left unattended at any time while on the campus.

Consumer Information

The Student Consumer Information Regulations of the United States Department of Education require all colleges and universities to provide their students access to certain information to which they are entitled to as consumers. Under these regulations, San Diego City, Mesa, and Miramar College and Continuing Education annually distributes to all students a notice of the availability of consumer information. Please visit our webpage at <https://www.sdccd.edu/students/consumer-information.aspx> to review the information outlined for consumer disclosure by the Higher Education Opportunity Act (HEOA).

This information is available in a hard-copy form upon request.

Student Right to Know

In compliance with the federal Student-Right-to-Know and Campus Security Act of 1990, it is the policy of the college district to make available completion and transfer rates for all certificate, degree and transfer seeking first-time, full-time students who began in Fall 2017, a three year tracking period.

The completion and transfer rates are listed below:

	Completion Rates	Transfer-Out Rates
City	22.72%	10.15%
Mesa	28.71%	14.36%
Miramar	41.78%	14.02%

These rates do not represent the success rates of the entire student population at the college. Our statewide completion indicators for student success include a six-year tracking period for all first-time students. Current information can be found at: <http://scorecard.cccco.edu/scorecard.aspx>

Athlete Graduation Rate for Fall 2018 Cohort

	Initial Cohort	Completion Rate	Transfer Rate
City College/ ECC	27	11%	15%
Mesa College	19	16%	11%
Miramar College	17	18%	12%

Source: SDCCD Information System and National Student Clearinghouse

The cohort includes first-time athletes who are enrolled full-time. Athletes are identified in a fall term based on enrollment in intercollegiate athletic courses. Student athletes are tracked for three years to measure their outcomes. Two measures are provided. The first measure, completion rate, is the total number of students who earn a degree, certificate, or reach transfer prepared status (60 transferable units with a GPA greater than or equal to 2.0). The second measure is transfer rate, which includes all non-completers who transferred to a four-year institution. These definitions match the methodology used for the Student Right-To-Know (SRTK) graduation rates, which are also consistent with how the NCAA reports Athlete graduation rates.

Nondiscrimination Policy (Board of Trustees Policy – BP 3410)

San Diego Community College District Board of Trustees Policy BP 3410 prohibits discrimination in accordance with state and federal laws. The San Diego Community College District is committed to equal opportunity in educational programs, employment, and all access to institutional programs and activities.

The District, and each individual who represents the District, shall provide access to its services, classes, and programs without regard to national origin, religion, age, gender, gender identity, gender expression, race or ethnicity, color, medical condition, genetic information, ancestry, sexual orientation, marital status, physical or mental disability, pregnancy, military or veteran status, or because he/she is perceived to have one or more of the foregoing characteristics, or based on association with a person or group with one or more of these actual or perceived characteristics. No qualified student with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the district or be subjected to discrimination by it. Lack of English speaking skills and/or visual/hearing impairment will not be a barrier to admission or participation in Career Technical Education programs.

Students wishing to file complaints based upon discrimination should contact the campus Site Compliance Officer (SCO), Poppy Fitch at 858-847-5045. Appeals may be made to the District EEO Compliance Manager at the District Administrative Office, 3375 Camino del Rio South, San Diego, CA 92108.

Students with disabilities who want to file a grievance under Section 504 of the 1973 Federal Rehabilitation Act should contact the campus 504 Officer, Poppy Fitch at 858-847-5045, District Office, room 275 or Disability Support Programs and Services in room A-122 or call 619-388-3513. Students who want to file a disability discrimination grievance under the Americans with Disabilities Act (ADA) should contact the campus Site Compliance Officer (SCO), Poppy Fitch at 858-847-5045.

You may view a full copy of the policy by accessing the following website:
<https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>

Free Speech

Free speech areas have been designated on the college campuses to maximize the opportunity for free discussion and expression, while minimizing the potential for disruption of classroom and college activities.

Information concerning free speech areas is available in the office of the Vice President of Student Services, or the Dean of Student Affairs office on campus.

Gender Equity

The Gender Equity Coordinator facilitates the development or updating of the campus Gender Equity Plans in cooperation with committees that are responsible for equity concerns. The Title IX Coordinator can be reached at 619-388-6983.

Title IX. Prohibiting Gender Discrimination and Sexual Harassment

San Diego City, Mesa, and Miramar College are committed to support all regulations under Title IX. Title IX states: “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.” – 20 USC 1681

San Diego City, Mesa, and Miramar Colleges do not discriminate on the basis of sex, gender, or sexual orientation in its education programs or activities. Title IX of the Education Amendments of 1972, and certain other federal and state laws, prohibit discrimination on the basis of gender, gender identity, or sexual orientation in employment, as well as all education programs and activities, and protect all people regardless of their gender or gender identity from sex discrimination, which includes sexual harassment and sexual violence. These procedures are used when a complaint concerns discrimination on the basis of gender, including sexual harassment.

The sexual harassment of students, including sexual coercion, sexual assault, domestic violence, dating violence and stalking, is a form of sex discrimination and interferes with students’ right to receive an education free from discrimination and harassment.

Sexual assault, as that term is used in this section, encompasses several physical sexual acts perpetrated against a person’s will or where a

person is incapable of giving consent. A person may be unable to give consent due to their use of drugs or alcohol or because of an intellectual or other disability.

A number of different conduct falls into the category of sexual assault, including rape, sodomy, fondling, and sexual assault with an object. All such acts of sexual assault are forms of sexual harassment covered under Title IX.

Further information and procedures for filing a formal complaint of discrimination on the basis of sex, gender, or sexual harassment are found online at <http://www.sdccd.edu/titleix>

Title IX Coordinator:

Poppy Fitch, Ed.D.
Director, Disability Support Programs and Services,
Title IX Coordinator
titleix@sdccd.edu
619-388-6983

Deputy Title IX Coordinators:

San Diego City College (M-200)

Adan Sanchez
Dean of Student Affairs
asanchez003@sdccd.edu
(619) 388-3981

San Diego Mesa College (I4-408)

Victoria Miller
Dean of Student Affairs
vmiller@sdccd.edu
(619) 388-2699

San Diego Miramar College (K1-210)

Cheryl Barnard, Ph.D.
Dean of Student Affairs
cbarnard@sdccd.edu
(619) 388-7313

San Diego Continuing Education (Rm 104, Educational Cultural Complex (ECC))

Michele Madrid Novak, M.Ed.
Student Affairs Coordinator
mnovak@sdccd.edu
(619) 388-4850

Drug Abuse and Alcohol Prevention Program (DAAPP)

The Drug-Free Schools and Communities Act and Drug and Alcohol Abuse Prevention Regulations

(Education Department General Administrative Regulations [EDGAR]), specifies that no institution of higher education shall be eligible to receive funds or any other form of financial assistance under any Federal program, including participation in any federally funded or guaranteed student loan program, unless the institution certifies to the Secretary that the institution has adopted and has implemented a program to prevent the use of illicit drugs and the abuse of alcohol by students and employees. In response, the San Diego Community College District (SDCCD) has adopted and implemented program and policies to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees.

The San Diego Community College District (San Diego City College, San Diego Mesa College, San Diego Miramar College and Continuing Education) is committed to providing a drug free environment. The institutions also prohibit the use of tobacco products and electronic delivery devices on campus or at college/district sponsored events. Any type of drug use, including alcohol, is dangerous and potentially life threatening. Drugs and alcohol adversely affect the body, mind and behavior. The effects vary from person to person and from usage to usage. Even low doses of drugs and alcohol can impair judgment and coordination. If you use drugs or alcohol, you risk overdose, accidents, dependence, ill health, as well as legal, financial and personal problems. The federal laws against drugs are divided into two categories: possession and distribution. The penalties are severe depending upon the type of drug, quantity of the drug, and any prior offenses. Possession will earn up to one year in prison and a \$5,000 fine. Distribution will earn up to life in prison and an \$8 million fine. State laws vary and may be more severe.

For more information, please visit the Drug Abuse and Alcohol Prevention Program (DAAPP) webpage at <http://www.sdccd.edu/daapp>

Smoking Regulation CITY COLLEGE IS A SMOKE AND TOBACCO-FREE CAMPUS (Board Policy – BP 0505)

All campuses and facilities of the San Diego Community College District, City College, Mesa College, Miramar College, and Continuing Education operate in compliance with the provisions of Government Code 7597 and San Diego Municipal

Code section 43.1003(a) regulating smoking in a public place or place of employment. In accordance with Board Policy (BP 0505) Smoke and Tobacco Free District Property smoking and the use of any tobacco product are prohibited on all properties owned or controlled by the District.

City College is committed to creating a clean, healthy working and learning environment for students, faculty, staff and visitors. All students, employees and visitors on the City College property are subject to BP 0505 regulations, which will be strictly enforced at all times. Student Health Services at City College offers Cessation Program Referrals to educate the college community about the risks of tobacco and the availability of Smoking Control Programs. Visit or call the Student Health Services on campus for additional information at 619-388-3450.

Additional information is available in the Campus Police Office. For complete SDCCD Policy 0505 and Procedure 0505.2 information, please visit: <https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>.

Crime Awareness and Campus Security

Jeanne Clery Act Crime Statistics

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act is the landmark federal law, originally known as the Campus Security Act, which requires colleges and universities across the United States to disclose information about crime on and around their campuses.

The San Diego Community College District Annual Security Report, titled "Safe and Sound, a guide to safety and security in the San Diego Community College District", includes statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings or property owned or controlled by the San Diego Community College District; and on public property within, or immediately adjacent to and accessible from, the campus. The report also includes institutional policies concerning campus security, such as policies on drug use, crime prevention, the reporting of crimes, sexual assault and other matters. You can obtain a copy of this report by contacting any campus admissions office, Vice President of Student Services (I-422) office or college police business office. At any time you may view a full copy by accessing the following website:

<https://www.sdccd.edu/about/departments-and-offices/police-department/clery-act.aspx>.

Pursuant to State and Federal Law information concerning registered sex offenders enrolled or employed by the college may be obtained through the College Police Office.

Elder and Dependent Adult Abuse

An elder is defined as a resident of the State of California who is 65 years of age or older; or a dependent adult, defined as a resident of the State of California between the ages of 18 and 64 years, who has a physical or mental limitation that restricts his or her ability to carry out normal activities or to protect his/her rights.

Post-secondary educational institutions serving dependent adults are designated as mandated reporters with an individual, personal responsibility to comply with the reporting requirements.

Any mandated reporter, who, in his or her professional capacity, or within the scope of his or her employment, has observed or had knowledge of an incident that reasonably appears to be physical abuse, abandonment, isolation, financial abuse, or neglect, or is told by an elder or dependent adult that he or she has experienced behavior constituting physical abuse, abandonment, isolation, financial abuse, or neglect, or reasonably suspects abuse shall report the known or suspected instance of abuse immediately to Adult Protective Services at 1-800-510-2020.

Copyright Responsibility

Any duplication request of copyrighted materials for use in the college's instructional programs must be accompanied by written permission from the copyright owner. Any duplication of copyrighted materials by student, staff, or faculty is to be for the sole purpose of private scholarly study. Since the liability for infringement of statutory or common-law copyright occurs during misuse of duplicated materials, the duplicated copies cannot be sold or distributed. A designated portion of the duplicated copy cannot be included in another's work without the written permission of the copyright owner. All copyright responsibility is assumed by the individual requesting the duplication. San Diego City College, its agents, representatives, and employees are held harmless against all claims, suits, damage costs, and expenses of charges of statutory or common-law infringement

resulting from the college's efforts to provide services, materials, and equipment to the requestor.

Student Rights, Responsibilities, Campus Safety and Administrative Due Process

(Board of Trustees Policy – BP 5500)

This policy enumerates the rights and responsibilities of all San Diego Community College District students. All students are subject to adhering to the policies and procedures of the San Diego Community College District, as well as all federal, state, and local laws. Students are subject to charges of misconduct concerning acts committed on District-owned or controlled property or the District-sponsored activities as specified in the policy.

You may view a full copy of the policy by accessing the following website:
<https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>

Student Grievance Procedure

The purpose of this procedure is to provide a prompt and equitable means for resolving student grievances. The procedures enumerated in Student Grievance Procedures AP 5530 shall be available to any student who believes a district decision or action has adversely affected his/her rights as a student as specified in Student Rights and Responsibilities, Campus Safety and Administrative Due Process, BP 5500, Section *a* through *j*. Note that grades are not grievable under this policy. Refer to the Grade Challenge section, page 57, of this catalog.

You may view a full copy of the policy by accessing the following website:
<https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>

Volunteer/ Visitor Conduct Expectations

In accordance with Procedure 3100.4, all visitors and volunteers are expected to adhere to the policies and procedures of the San Diego Community College District, as well as all federal, state and local laws. Visitors and volunteers will be subject to removal from classrooms, service areas, and activities of the campus for any of the following

acts (but not limited to) while on campus. Any violation may be subject to permanent removal from campus. Violations of state, federal, or local laws or ordinances, while on district premises, will be addressed by college police in accordance with the California Penal Code.

- Act or threat of damage to or theft of property belonging to or located on District-controlled property or facilities.
- The physical or verbal intimidation or harassment of such severity or pervasiveness as to have the purpose or effect of unreasonably interfering with a student's academic performance, or a District employee's work performance, or of creating an intimidating, hostile, or offensive educational or work environment.
- Physical or verbal disruption that is incompatible with instructional or student services activities, administrative procedures, public service functions, authorized curricular or co-curricular activities or prevention of authorized guests from carrying out the purpose for which they are on campus when such a disruption occurs inside of any classroom or facility or in such proximity as to appear reasonably likely to interfere with activities inside of the classroom or facility, or the substantial and material disruption of any other regular campus activity which occurs in any other portion of District-controlled property.
- Disorderly, lewd, indecent or obscene conduct or expression or habitual profanity or vulgarity; any expression which is obscene, libelous or slanderous according to current legal standards or which so incites students as to create a clear and present danger of the commission of unlawful acts, or the substantial disruption of the orderly operation of the community college. (Ed. Code 76120)
- Assault or battery upon a student or district personnel on district premises or at any time or place while under the authority of District personnel.
- Possession of weapons, explosives, unlicensed dangerous chemicals or objects which may be used as weapons or to threaten bodily harm, as specified in District Policy, the California Penal Code, or other applicable laws.

Failure to comply with the reasonable directions of staff members of the district who are acting within the scope of their employment. Continued and

willful disobedience or open and persistent defiance of the authority of district personnel, provided such authority is related to district activities or college/center attendance.

You may view a full copy of the policy by accessing the following website:
<https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>

Student Records, Release, Correction and Challenge

(Administrative Procedure AP-5040)

San Diego Community College District strictly adheres to the Family Education Rights and Privacy Act (FERPA). This procedure specifies limitations on federal and state law, and ensures that appropriate record maintenance and destruction systems are in place.

Pursuant to the “Family Rights and Privacy Act of 1974” (Public Law 93-380) and the California Education Code, a student may request to inspect all official school records, files, and related data that are classified as Student Records. The records will be available for review at a mutually convenient time during regular working hours. Contact the Vice President, Student Services. If information in the file is inaccurate, misleading, or inappropriate, a student may request removal of the information or include a statement disputing the material that is challenged. The law provides that no individual, agency, or organization shall have access to a student’s records without the written consent of the student, except under very specific conditions.

You may view a full copy of the procedure by accessing the following website:
<https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>

Complaint Processes

San Diego City, Mesa, and Miramar Colleges are committed to an educational environment that is free from interference and disruption, and that fosters equity and mutual respect.

Students may file a complaint when they believe that a College faculty or staff member has violated

the following Board Policies and Administrative Procedures:

1. Student Rights, Responsibilities, Campus Safety and Administrative Due Process: Policy 5500
2. Student Grievance: Procedure 5530
3. Student Discipline: Procedure 5520
4. Honest Academic Conduct: Procedure 3100.3
5. Academic Accommodations and Disability Discrimination for Students with Disabilities: Procedure 3105.1
6. Prohibition of Harassment: Policy 3430
7. Prohibition of Sexual Harassment under Title IX Policy 3433
8. Nondiscrimination: Policy 3410
9. Fraud/Whistle Blower: Policy 6125
10. Grade Challenge: Procedure 3001.2

Board Policies and Administrative Procedures are available to Individuals online at
<https://www.sdccd.edu/about/leadership/board-of-trustees/board-policies/index.aspx>

Most complaints, grievances or disciplinary matters should be resolved at the campus level. Individuals are strongly encouraged to make every attempt to resolve matters through the appropriate administrative processes.

More information on the complaint processes can be found online at <https://www.sdccd.edu/students/complaint-process/index.aspx>.

Academic Complaint

An academic complaint may be filed with the department chair or instructional dean when a student feels that a faculty member has violated state law, federal law, or College policies and procedures relative to grading or other academic matters*. Students may directly contact the department chair or instructional dean or submit their complaint online at: <https://www.sdccd.edu/students/complaint-process/index.aspx>.

***Please note:** All grades awarded by the instructor of record shall be final. The California Code of Regulations, Title 5 §55025, states “the determination of the student’s grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetency.”

Academic Accommodation Due to Disability Complaint (Section 504/ADA)

Students who have a complaint regarding access to, or quality of, their academic accommodations may contact the DSPS counselor.

Students may submit a complaint online at <https://www.sdccd.edu/students/complaint-process/index.aspx> or contact the campus 504 Officer.

Students with disabilities who want to file a complaint regarding access to or quality of their academic accommodation under Section 504 and/or the American Disabilities Act (ADA) may go through the informal process with the DSPS counselor, if no agreement is reached with the informal process, students may submit a complaint online or contact the campus 504 Officer:

Campus 504 Officer
San Diego City College (District Office Rm 275)
Poppy Fitch pfitch001@sdccd.edu (858) 847-5045
San Diego Mesa College (14-408)
Claudia Perkins cperkins@sdccd.edu (619) 388-2699
San Diego Miramar College (Room N-203)
Adrian Gonzales agonzales@sdccd.edu (619) 388-7810
San Diego Continuing Education (Room 104, Educational Cultural Complex (ECC))
Michele Madrid-Novak mnovak@sdccd.edu (619) 388-1257

General Complaint

A general student complaint may be filed by a student who feels an action of a College staff member, office, or group violates existing College rules, policy, or procedures or other local, state, and federal laws. A complaint of gender discrimination or sexual assault or harassment is not included in this category; please see Title IX complaint below.

The complaint procedures are formalized procedures to ensure timely resolution at the lowest possible level. The first step is the informal resolution stage,

which involves the student who has a complaint and the faculty/staff member or specific group with whom the student has a complaint. The student must notify the faculty/staff person or representative of a group that he or she wishes to make an appointment for an informal meeting to review an action. In the absence of the instructor or staff person and after a good faith effort to make contact, the student may directly contact the instructional dean or appropriate administrator or submit their complaint online at: <https://www.sdccd.edu/students/complaint-process/index.aspx>.

Unlawful Harassment or Discrimination Complaint not Based on Sex or Gender

San Diego City, Mesa and Miramar Colleges are committed to providing an academic environment free of unlawful harassment and unlawful discrimination. Board Policy 5500 defines verbal, physical, visual or written, environmental and harassment and other forms of harassment on campus, and sets forth a procedure for the investigation and resolution of complaints of harassment by or against any staff, or faculty member, or student within the District.

You may view a full copy of the policy by accessing the following website: <http://www.sdccd.edu/public/district/policies/>.

These procedures are used when a complaint concerns matters of discrimination or failure to comply with College policy or procedures or federal and/or state regulations including the Civil Rights Act; Executive Orders 11246 and 11375; the Vietnam Era Veterans Readjustment Act of 1974; the Age Discrimination and Employment Act of 1967; Section 504 of the 1973 Federal Rehabilitation Act and Americans with Disabilities Act (ADA); and the nondiscrimination laws of the State of California.

Students who wish to file a complaint may do so online at: <https://www.sdccd.edu/students/complaint-process/index.aspx> or contact your college Site Compliance Officer (SCO):

Campus Site Compliance Officer
San Diego City College (District Office RM 275)
Poppy Fitch pfitch001@sdccd.edu (858) 847-5045

San Diego Mesa College (I4-408)

Claudia Perkins

cperkins@sdccd.edu
(619) 388-2699**San Diego Miramar College (Room M-211E)**

Francois Bereaud

fbereaud@sdccd.edu
(619) 388-7503**San Diego Continuing Education
(Room 115F, North City Campus)**

Lynda Reeves

lreeves@sdccd.edu
(619) 388-1827

Students wishing to pursue a civil rights complaint beyond the college/district level should direct their inquiries to the Office of Civil Rights, United States Department of Education, 50 Beale Street, Suite 7200, San Francisco, CA 94105-1813.

Other Complaint Process

If your complaint is associated with the institution's compliance with academic program quality and accrediting standards, you may contact the Accrediting Commission for Community and Junior Colleges (ACCJC) at <http://www.accjc.org/complaint-process> ACCJC is the agency that accredits the academic programs of the California Community Colleges.

If your complaint does not concern the California Community College's compliance with academic program quality and accrediting standards, you may contact the California Community College Chancellor's Office by completing the web form found at: <https://www.cccco.edu/Complaint-Process-Notice>

Academic Requirements

<i>At-A-Glance</i>	<i>Page</i>
The Baccalaureate Degree	98
The Associate Degree	98
All Degrees Have the Following Requirements in Common	98
Associate in Arts for Transfer (AA-T) or Associate in Science for Transfer (AS-T) for California State University (CSU).....	99
Associate of Arts and Associate of Science Degree Requirements	100
Graduation.....	114

The Baccalaureate Degree

The Bachelor of Science Degree in Cyber Defense and Analysis (CYDA)

The Bachelor of Science in Cyber Defense and Analysis follows the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework and the Department of Defense (DoD) Cyber Workforce Framework (DCWF) with the common goal of developing critical knowledge, skills, and abilities (KSAs) to perform real-time defensive cyber operations. Program emphasis is on architectural, analytical, and strategic application of advanced techniques and technologies to actively monitor and defend core operational and emerging technology, network hardware and systems, and supply chain and critical infrastructure. Additionally, students explore the ethical and societal impacts of the development and use of cyber technology.

This pathway includes preparation for multiple industry-recognized certifications geared toward preparing students to be job-ready for a successful career in cyber workforce roles that impact an organization's ability to analytically assess and respond to modern cybersecurity threats while managing risk and maintaining business continuity.

Careers in the cyber workforce or information security field include: cyber defense analyst, information security consultant, security administrator, security analyst, security engineer, security auditor, incident responder, penetration tester, vulnerability assessor, support technician, systems administrator, network administrator, and network specialist.

The CYDA program has the following requirements:

- A combination of lower division and upper division coursework totaling a minimum of 120 semester or 180 quarter units that are applicable to a baccalaureate degree as defined within these guidelines. A minimum degree requirement of 60 semester credits or 90 quarter units at the associate level.
- At least 36 semester or 54 quarter units of lower division general education is required.
- Completion of the CSU (California State

University) General Education Breadth or Intersegmental General Education Transfer Curriculum pattern.

- All courses designated as lower division major requirement must be completed with a grade of "C" (or "P") or better.
- Completion of a minimum of 40 semester or 60 quarter units of upper division courses.
- At least 9 semester or 13.5 quarter units of upper division general education coursework is required.
- The general education requirements are integrated and distributed to both lower and upper division courses.
- All courses designated as an upper division major requirement must be completed with a minimum grade of "C" (or "P") for each course in the major.

Upper Division General Education*

BUSE 440 Cyber Law and Ethics

CISC 450 Security Analytics and Visualization

ENGL 402 Advanced Technical Writing

The Associate Degree

On the recommendation of the faculty, the colleges of the San Diego Community College District award the Associate of Arts degree or the Associate of Science degree.

The Associate of Arts degree is awarded in the social sciences, humanities, the arts, and similar disciplines. The Associate of Science degree is awarded in engineering, physical and biological sciences, and occupational curricula.

All Degrees Have the Following Requirements in Common

Minimum Units in Residence

Satisfactory completion of a minimum of 12 degree applicable semester units must be completed in

residence within the San Diego Community College District.

The 12-unit in residence requirement is effective for all degrees awarded regardless of catalog year.

Courses completed via credit for prior learning, including credit by exam, do not qualify for the 12-unit in residence requirement.

Major/Area of Emphasis Requirements

A minimum of 18 semester units (27 quarter units) of focused study in a major or interdisciplinary area of emphasis.

- A “major” is a focused program of study within a specific discipline, which may include some coursework outside the primary discipline. Programs designed to provide transfer preparation must be designed to meet specific lower-division requirements in comparable baccalaureate majors.
- An “area of emphasis” is an interdisciplinary program of study encompassing a broad range of courses from multiple related academic disciplines, providing the student with an academic pathway broader than a specific major but more focused than general education.

Six semester units must be completed at City, Mesa, or Miramar College. Refer to the Degree Curricula and Certificate Programs section of this catalog for specific requirements for each major.

Recency of Coursework Limitation:

Academic departments may require that courses for the major be completed within a specified period of time prior to the granting of the Associate Degree, Certificate of Achievement, or Certificate of Performance. Students with questions about the applicability of previous coursework are advised to consult the Department as early as possible.

Associate in Arts for Transfer (AA-T) or Associate in Science for Transfer (AS-T) for California State University (CSU)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Each AA-T or AS-T is accepted by some but not all CSU campuses. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor’s degree in that major. Please see a counselor and <http://CanGoToCollege.com> for more information.



Students intending to transfer to a CSU should consult a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Degree Requirements

The following is required for all AA-T or AS-T degrees:

1. Completion of 60 CSU-transferable semester units.
2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
3. Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list above). All courses in the major must be completed with a grade of C or better. A "P" (pass) grade meets this requirement. Students should review the Pass/No-Pass acceptance policy of the transfer institution prior to requesting this grade option.
4. Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Note:

IGETC for STEM

Students pursuing an Associate Degree for Transfer in Biology are eligible to take IGETC for STEM, deferring two lower-division GE courses until after transfer. IGETC for STEM is applicable only to Biology majors in which the Transfer Model Curriculum explicitly indicates the availability of the option.

Students using IGETC for STEM may delay until after transfer:

1. One general education course in Area 3 (Arts and Humanities); and
2. One general education course in Area 4 (Social and Behavioral Sciences).

It is strongly recommended that students consult with a counselor to determine which general education pattern is most appropriate for their individual educational goals.

CSUGE for STEM

Students pursuing an Associate Degree for Transfer in Biology are eligible to take CSUGE-Breadth for STEM, deferring two lower-division GE courses until after transfer. CSUGE-Breadth for STEM is applicable only to Biology majors in which the Transfer Model Curriculum explicitly indicates the availability of the option.

Students using CSUGE-Breadth for STEM must complete:

1. All courses in Areas A, B, E, and F of the traditional CSU GE Breadth Curriculum; and
2. One course in Area C1 Arts and one course in Area C2 Humanities; and
3. One course in Area D.

It is strongly recommended that students consult with a counselor to determine which general education pattern is most appropriate for their individual educational goals.

Associate of Arts and Associate of Science Degree Requirements

Minimum 60 Units Required

A minimum of 60 semester units (90 quarter units) of degree-applicable lower division credit courses, including courses that apply to the major or area of emphasis in career technical fields and courses in composition, reading, and mathematics or quantitative reasoning not more than one level below transfer. Below transfer level course requirements must align with Education Code section 78213.

1. Satisfactory completion of at least 12 semester units (18 quarter units) in residence within the San Diego Community College District.
2. Completion of a minimum 21 semester units (or 28 – 31.5 quarter units) general education pattern pursuant to section 55061, or completion of the requirements for an approved intersegmental lower-division general education pattern used for transfer to the University of California or the California State University.

Grade Point Average (GPA) and Minimum Grade Requirements

1. Effective 2009-2010 catalog year (and each year thereafter), students must earn a grade of "C" or better in courses required for the major. A "P" (pass) grade meets this requirement.
2. A grade point average of at least 2.0 (a "C" average) is required in the curriculum upon which the degree is based.

Credit for Prior Learning

1. Students may receive credit for knowledge or skills acquired through a district's procedures for awarding credit for prior learning. See Credit for Prior Learning, page: 61
2. Students may petition to have completion of a noncredit course counted toward satisfaction of requirements for an associate degree. See High School and Noncredit Courses for College Credit (Credit by Examination) page: 83

Select One of the Following Five General Education Options:

- Physical and Earth Sciences Specialization
 - Social and Behavioral Sciences
 - Nursing Education
 - **Option 5**– Students who submit an official transcript showing they have earned a baccalaureate degree from a regionally accredited institution will have satisfied the SDCCD associate degree general education and District requirements by having previously completed the baccalaureate degree. Students seeking the Associate in Arts for Transfer (AA-T) or Associate in Science for Transfer (AST) degree must complete either the California State University General Education Breadth (CSU-GE) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) pattern. Students who plan to transfer to a four-year institution should review the Transfer Requirements section of this catalog.
- Students should plan programs with long range goals in mind. Students who plan to transfer to a four-year institution should review the Transfer Requirements section of this catalog.
- ## District Requirements (Option 1)
1. **American Institutions/California Government**

Students are required to complete the United States History, Constitution and American Ideals before being awarded an associate degree. This requirement may be fulfilled by completing any combination of two classes that, when combined, fulfill areas: US-1, US-2, and US-3. A course may be used to fulfill more than one area.
- **Option 1**–San Diego Community College District General Education AND District Requirements. (See City College Catalog page 101).
 - **Option 2**–CSU General Education Breadth (CSU GE Pattern). (See City College Catalog page 134)
 - **Option 3**–Intersegmental General Education Transfer Curriculum (IGETC) pattern. (See City College Catalog page 126)
 - **Option 4**–San Diego Community College District General Education Requirements. (See City College Catalog page 106). Students selecting this option should meet with a counselor to determine the appropriate General Education courses for their individual transfer goals. **NOTE:** Option 4 is only available for the following City College degrees designed for transfer students:
 - Visual and Performing Arts
 - Language Arts and Humanities
 - Scientific Studies:
 - Biological Science
 - Mathematics and Pre-Engineering

A check mark [✓] indicates course has been approved to meet the requirement for the area.

Course	Area US-1: Development of American Institutions	Area US-2: US Constitution	Area US-3: California State & Local Governments
^BLAS 140A African American History to Reconstruction (C,M,MMR)	✓	✓	
^BLAS 140B African American History since Reconstruction to the Present (C,M,MMR)	✓		✓
^CHIC 141A U.S. History from a Chicano Perspective (C,M,MMR)	✓	✓	
^CHIC 141B U.S. History from a Chicano Perspective (C,M,MMR)	✓		✓
HIST 109 History of the United States I (C,M,MMR)	✓	✓	
HIST 110 History of the United States II (C,M,MMR)	✓		✓
^HIST 115A History of the Americas I (C,M,MMR)	✓	✓	
^HIST 115B History of the Americas II (C,M,MMR)	✓		✓
^HIST 123 U.S. History from the Asian Pacific American Perspective (C,M,MMR)	✓		✓
HIST 141 Women in United States History I (M,MMR)	✓	✓	
HIST 142 Women in United States History II (M,MMR)	✓		✓
^HIST 150 Native Americans in United States History I (M)	✓	✓	
^HIST 151 Native Americans in United States History II (M)	✓		✓
HIST 175 California History (M)			✓
POLI 102 Introduction to American Government (C,M,MMR)		✓	✓
^POLI 121 American Political Development (C,M,MMR)	✓	✓	
NOTES:			
<ul style="list-style-type: none"> • Courses designated with a caret (^) may also be used to fulfill the District Multicultural studies requirement. • Completion of the Advanced Placement examination in U.S. History with a score of 3 or higher will satisfy the requirement for the CSU American Institutions Area US-1 only. • Completion of the Advanced Placement examination in U.S. Government & Politics with a score of 3 or higher will satisfy the requirement for Area US-2. • Students who have completed the American Institutions requirement except for the California government portion must complete one course approved in Area US-3. 			

2. Health Education

This requirement is met by completing Health Education 101: Health and Lifestyle, three units.

Note: This requirement is waived for students who earn degrees in Nursing Education, Physical Therapist Assistant, or are graduates of a certified paramedic training program. U.S. Veterans and active duty U.S. military personnel may be granted two units of college credit to fulfill the Health Education Requirement if service has been continuous for at least six months. Copies of form DD-214 or DD-295 or Joint Services Transcript (JST) or CCAF Transcript covering all periods of military service must be on file in the Records Office.

3. Exercise Science Activity

Students must complete two activity courses. Exercise Science courses numbered below PHYE 240 or below EXSC 229 are acceptable. Dance courses are also acceptable, except for DANC 181, 183 and 253. Administration of Justice 127A, 127B, 127C, 127D, 128A, 128B, 128C, 128D, 323, 381 and 382 are also acceptable. Fire Protection Technology 100D, 150A, 150B, 160, 360A, 380W, 381F are also acceptable. Students with physical conditions which prevent participation in regular exercise science activity classes must file a physician's statement with the College Evaluations Office. Adapted Exercise Science classes are available. A Physician's medical release form is required.

Note: This requirement is waived for students who possess an accredited Fire Fighter I certification or are graduates of a POST Commission certified regional law enforcement academy. U.S. Veterans and active duty U.S. military personnel may be granted two units of college credit to fulfill the Exercise Science Activity requirement if service has been continuous for at least six months. Copies of form DD-214 or DD-295 or Joint Services Transcript (JST) or CCAF Transcript covering all periods of military service must be on file in the Records Office.

4. Multicultural Studies

Students may satisfy the District multicultural studies graduation requirement by satisfactorily completing a course related to the culture of one or more of the ethnic groups which are represented in American society. The course shall include a focus on the role of men and women in the origin, development, and current status of these cultures.

Note: Each student seeking the Associate Degree must complete a three-unit multicultural studies

course selected from the general education courses marked with a ^ indicating that it meets the Multicultural Requirement. The three units may be applied to the 18 units required in general education.

This requirement is met by completing one of the following courses (these courses are also on the District General Education list).

^	AAPI 124	Introduction to Asian American and Pacific Islander Studies (C,M,MMR)
^	ADJU 106	Diversity and Community Relations (MMR)
^	AMSL 150	Introduction to Deaf Culture (M)
^	ANTH 103	Introduction to Cultural Anthropology (C,M,MMR)
^	ANTH 200	Introduction to North American Indians (M)
^	ANTH 210	Introduction to the Indigenous People of California (C,M)
^	ARTF 113	Arts of Africa, Oceania, and the Americas (M,MMR)
^	ARTF 115	African Art (C,M)
^	ARTF 120	Native American Art (M)
^	BLAS 100	Introduction to Black Studies (C,M,MMR)
^	BLAS 104	Black Psychology (C,M,MMR)
^	BLAS 110	African American Art (C,M)
^	BLAS 111	Cultural Influences on African Art (M)
^	BLAS 115	Sociology from a Black Perspective (C)
^	BLAS 116	Contemporary Social Problems from a Black Perspective (C,M)
^	BLAS 120	Black Music (C,M)
^	BLAS 125	Dynamics of the Black Community (M)
^	BLAS 130	The Black Family (C,M)
^	BLAS 135	Introduction to Black Politics (C)
^	BLAS 140A	African American History to Reconstruction (C,M,MMR)
^	BLAS 140B	African American History since Reconstruction to the Present (C,M,MMR)
^	BLAS 145A	Introduction to African History (C,M)
^	BLAS 145B	Introduction to African History (C)
^	BLAS 150	Black Women in Literature, Film and the Media (C,M,MMR)
^	BLAS 155	African American Literature (C,M,MMR)
^	CHIC 110A	Introduction to Chicana and Chicano Studies (C,M,MMR)
^	CHIC 110B	Introduction to Chicano Studies (C,M)
^	CHIC 135	Chicana/o Literature (C,M,MMR)

- ^ CHIC 140 Chicana/o Sociology (C,M)
- ^ CHIC 141A United States History from a Chicano Perspective (C,M,MMR)
- ^ CHIC 141B United States History from a Chicano Perspective (C,M,MMR)
- ^ CHIC 155 Introduction to Central American Studies (M)
- ^ CHIC 190 Chicano Images in Film (C,M)
- ^ CHIC 210 Chicano Culture (C,M)
- ^ CHIC 250 Introduction to Chicana/o Dramatic Art (C,M)
- ^ CHIL 141 The Child, Family and Community (C,M,MMR)
- ^ COMS 180 Intercultural Communication (C,M,MMR)
- ^ DRAM 109 Theatre and Social Issues (C,M)
- ^ ENGL 202 Introduction to Linguistics (C,M)
- ^ ENGL 230 Asian American Literature (M,MMR)
- ^ ENGL 234 Hip Hop Literature: A Poetry Class (C,M,MMR)
- ^ FASH 122 Ethnic Costume (M)
- ^ FILI 100 Filipino American Experience (MMR)
- ^ FILI 101 Filipino American Psychology (MMR)
- ^ GEND 101 Introduction to Gender Studies (C,MMR)
- ^ GEOG 102 Cultural Geography (C,M,MMR)
- ^ HIST 115A History of the Americas I (C,M,MMR)
- ^ HIST 115B History of the Americas II (C,M,MMR)
- ^ HIST 120 Introduction to Asian Civilizations (C,M,MMR)
- ^ HIST 121 Asian Civilizations in Modern Times (C,M,MMR)
- ^ HIST 123 U.S. History from the Asian Pacific American Perspective (C,M,MMR)
- ^ HIST 130 The Modern Middle East (M)
- ^ HIST 150 Native Americans in United States History I (M)
- ^ HIST 151 Native Americans in United States History II (M)
- ^ INTE 125 History of Furniture and Interiors (M)
- ^ MUSI 109 World Music (C,M,MMR)
- ^ MUSI 217A Gospel Choir I (MMR)
- ^ MUSI 217B Gospel Choir II (MMR)
- ^ MUSI 217C Gospel Choir III (MMR)
- ^ MUSI 217D Gospel Choir IV (MMR)
- ^ NUTR 153 Cultural Foods (C,M)
- ^ PHIL 125 Philosophy of Women (C,M)
- ^ POLI 103 Comparative Politics (C,M,MMR)
- ^ POLI 121 American Political Development (C,M,MMR)
- ^ POLI 140 Contemporary International Politics (C,M,MMR)
- ^ SOCO 101 Principles of Sociology (C,M,MMR)
- ^ SOCO 110 Contemporary Social Problems (C,M,MMR)
- ^ SOCO 125 Sociology of the Family (C,M)
- ^ SOCO 150 Sociology of Latinos/Latinas (C,M)
- ^ SOCO 207 Introduction to Race and Ethnicity (C,M,MMR)
- ^ SOCO 223 Globalization and Social Change (C,M,MMR)
- ^ WMNS 101 Introduction to Gender and Women's Studies (M)

General Education Requirements Defined

The Associate Degree provides a framework within which students complete patterns of learning experiences designed to develop capabilities and insights to support their academic and career goals. Among these capabilities and insights are competencies that are germane to all aspects of higher education and comprise a “general education” curriculum, such as the ability to think critically and to communicate clearly and effectively both orally and in writing, to use quantitative reasoning, understand the modes of inquiry of the major disciplines, to be aware of other cultures and times, to achieve insights gained through experience in thinking about ethical problems, and to develop the capacity for self-understanding.

Furthermore, general education introduces students to the variety of means through which people comprehend the modern world. It reflects the conviction of colleges that those who receive their degrees must have mastered principles, concepts, and methodologies both unique to and shared by the various disciplines. A general education program should create coherence and integration among the separate requirements and involve students actively in examining values inherent in proposed solutions to major social problems. General Education Requirements Title 5 Section 55063:

(1) English Composition, Oral Communication, and Critical Thinking

(minimum of 6 semester/8 quarter units) including:

(1A) English Composition

(minimum of 3 semester/4 quarter units).

Courses fulfilling this requirement must be baccalaureate-level and include expository and argumentative writing.

(1B) Oral Communication and Critical Thinking

(minimum of 3 semester / 4 quarter units).

Courses fulfilling this requirement must be baccalaureate-level and may include oral communication and critical thinking courses.

Students who complete English Composition, Oral Communication, and Critical Thinking courses will be able to:

- demonstrate an understanding of the principles of clear and coherent communication
- use verbal and non-verbal languages in a clear and precise manner
- develop logical and rational thinking skills while analyzing and communicating processes
- evaluate different quantitative and qualitative symbol expressions and systems

(2) Mathematical Concepts and Quantitative Reasoning

(minimum of 3 semester / 4 quarter units).

Courses fulfilling this requirement must be at least college-level and may include mathematics or quantitative reasoning courses, including logic, statistics, computer languages, and relate disciplines.

Students who complete Mathematical Concepts and Quantitative Reasoning courses will be able to:

- evaluate different quantitative and qualitative symbol expressions and systems

(3) Arts and Humanities

(minimum of 3 semester / 4 quarter units).

Courses in the humanities study the cultural activities and artistic expressions of human beings. Such courses develop students' awareness of how people throughout the ages and in different cultures respond to themselves and the world around them in artistic and cultural creation, and develop students' aesthetic understandings and abilities to make value judgments. Courses fulfilling

this requirement may include introductory or integrative baccalaureate-level courses in the visual and performing arts, art history, foreign languages, literature, philosophy, religion, and related disciplines.

Students who complete arts and humanities general education courses will be able to:

- express understanding and appreciation of varieties of cultural and artistic expression
- articulate an understanding of the complex relationships between the arts and their cultural, historical, and economic contexts
- evaluate the various elements of artistic works

(4) Social and Behavioral Sciences

(minimum of 3 semester / 4 quarter units).

Courses in the social and behavioral sciences focus on people as members of society and develop awareness of the methods of inquiry used by the social and behavioral sciences. They stimulate critical thinking about how people act and have acted in response to their societies and promote appreciation of how societies and social subgroups operate. Courses fulfilling this requirement may include introductory or integrative baccalaureate-level courses in cultural anthropology, cultural geography, economics, history, political science, psychology, sociology, and related disciplines.

Students who complete social and behavioral sciences general education courses will be able to:

- express understanding of how people act and have acted in response to their societies and the natural environment
- articulate how societies and social subgroups operate in specific historical and contemporary contexts
- use methods of inquiry and measurement appropriate to the particular discipline being studied

(5) Natural Sciences

(minimum of 3 semester / 4 quarter units).

Courses in the natural sciences examine the physical universe, its life forms, and its natural phenomena, helping students appreciate and understand the scientific method and the relationships between science and other human activities. Courses fulfilling this requirement may include introductory or

integrative baccalaureate-level courses in astronomy, biology, chemistry, general physical science, geology, meteorology, oceanography, physical geography, physical anthropology, physics, and other scientific disciplines.

Students who complete natural sciences general education courses will be able to:

- demonstrate an understanding and appreciation of the scientific method
- express an understanding of the relationships between science and other human activities
- examine the natural physical world and its life forms in a variety of courses
- utilize critical thinking skills in a variety of scientific applications

(6) Ethnic Studies

(minimum of 3 semester/4 quarter units).

Courses fulfilling this requirement may include baccalaureate-level courses in the four autonomous disciplines within Ethnic Studies: Black Studies, African American Studies, Africana Studies; Native American Studies; Chicano/a/x, Latino/a/x Studies/La Raza Studies; and Asian American Studies.

General Education Requirements (Option 4)

A minimum of 21 semester units (28 – 31.5 quarter units)

() Colleges in parenthesis indicate where the course is approved for General Education Requirements.

- C—City College
- M—Mesa College
- MMR—Miramar College

^ Courses with a caret fulfill District multicultural studies graduation requirement.

* Courses with an asterisk may satisfy more than one district requirement and/or general education requirement.

Note: Courses may meet multiple requirements, including general education, a major or area of emphasis, and additional requirements. However, one course may not be counted in more than one general education area, even if the course is approved in multiple general education areas. Students may use the same course to meet a local

general education requirement and to satisfy a general education requirement at the California State University or the University of California if that segment accepts the course for this purpose.

The following information is based on 2024–2025 course offerings and is subject to change. Please contact the Counseling Department for updates.

The State of California requires the completion of a minimum of 21 units of general education with at least a 2.0 grade point average. One course must be selected from each of the following areas: English Composition; Oral Communication and Critical Thinking; Mathematical Concepts and Quantitative Reasoning; Arts and Humanities; Social and Behavioral Sciences; Natural Sciences; and Ethnic Studies.

English Composition, Oral Communication, and Critical Thinking

(minimum of 6 semester units/8 quarter units Including:

(1A) English Composition

(minimum of 3 semester/4 quarter units). Courses fulfilling this requirement must be baccalaureate-level and include expository and argumentative writing.

ENGL 101	Reading and Composition (C,M,MMR)
ENGL 105	Composition and Literature (C,M,MMR)

(1B) Oral Communication and Critical Thinking

(minimum of 3 semester / 4 quarter units)

COMS 103	Oral Communication (C,M,MMR)
COMS 135	Interpersonal Communication (C,M,MMR)
COMS 160	Argumentation and Critical Thinking (C,M,MMR)
COMS 170	Small Group Communication (C,M,MMR)
^ COMS 180	Intercultural Communication (C,M,MMR)
ENGL 205	Critical Thinking and Intermediate Composition (C,M,MMR)

HIST 205	Methodology and Practice in History (M)
PHIL 100	Logic and Critical Thinking (C,M,MMR)
PHIL 205	Critical Thinking and Writing (C,M,MMR)

MATH 96	Intermediate Algebra and Geometry (C,M,MMR) (City Apprenticeship Students Only)
MATH 98	Technical Algebra and Geometry (C) (City Apprenticeship Students Only)

(2) Mathematical Concepts and Quantitative Reasoning

(minimum of 3 semester / 4 quarter units).

BANK 103	Introduction to Investments (MMR)
BIOL 200	Biological Statistics (M)
BUSE 101	Business Mathematics (C,M,MMR)
BUSE 115	Statistics for Business (C,M,MMR)
CHEM 251	Quantitative Analytical Chemistry (C,M,MMR)
CISC 150	Introduction to Computer and Information Sciences (C,M)
CISC 181	Principles of Information Systems (C,M,MMR)
CISC 187	Data Structures in C++ (C,M,MMR)
CISC 190	Java Programming (C,M,MMR)
CISC 192	C/C++ Programming (C,M,MMR)
CISC 201	Advanced C++ Programming (C,M)
CISC 205	Object Oriented Programming using C++ (C)
CISC 246	Discrete Mathematics for Computer Science (M,MMR)
ECON 120	Principles of Macroeconomics (C,M,MMR)
ECON 121	Principles of Microeconomics (C,M,MMR)
ENGE 151	Engineering Drawing (C,M)
ENGE 200	Statics (C,M)
ENGE 240	Digital Systems (C,M)
ENGE 250	Dynamics (C,M)
ENGE 260	Electric Circuits (C,M)
GISG 104	Geographic Information Science and Spatial Reasoning (C,M)
HEIT 256	Statistics for Healthcare (M)
MATH 92	Applied Beginning and Intermediate Algebra (C,M,MMR). (City Apprenticeship Students Only)

MATH 104	Trigonometry (C,M,MMR)
MATH 107	Introduction to Scientific Programming (C)
MATH 107L	Introduction to Scientific Programming Lab (C)
MATH 109	Explorations in Mathematical Analysis (C)
MATH 115	Gateway to Experimental Statistics (C,MMR)
MATH 116	College and Matrix Algebra (C,M,MMR)
MATH 118	Math for the Liberal Arts Student (C,M,MMR)
MATH 119	Elementary Statistics (C,M,MMR)
MATH 121	Basic Techniques of Applied Calculus I (C,M,MMR)
MATH 122	Basic Techniques of Applied Calculus II (C,M,MMR)
MATH 141	Precalculus (C,M,MMR)
MATH 150	Calculus with Analytic Geometry I (C,M,MMR)
MATH 151	Calculus with Analytic Geometry II (C,M,MMR)
MATH 210A	Concepts of Elementary School Mathematics I (C,M)
MATH 210B	Concepts of Elementary School Mathematics II (C,M)
MATH 215	Introduction to Teaching Mathematics (M)
MATH 245	Discrete Mathematics (C,M,MMR)
MATH 252	Calculus with Analytic Geometry III (C,M,MMR)
MATH 254	Introduction to Linear Algebra (C,M,MMR)
MATH 255	Differential Equations (C,M,MMR)
MFET 210	Statistical Process Control (C)
MFET 220	Programmable Logic Controllers (C)
PHIL 101	Symbolic Logic (C,M,MMR)
PHYS 125	General Physics (C,M,MMR)
PHYS 126	General Physics II (C,M,MMR)
PHYS 180A	General Physics I (C,MMR)
PHYS 180B	General Physics II (C,MMR)

PHYS 195	Mechanics (C,M,MMR)
PHYS 196	Electricity and Magnetism (C,M,MMR)
PHYS 197	Waves, Optics and Modern Physics (C,M,MMR)
POLI 201	Elementary Statistics for Political Science (C,M)
PSYC 258	Behavioral Science Statistics (C,M,MMR)

(3) Arts and Humanities

(minimum of 3 semester / 4 quarter units).

^ AAPI 124	Introduction to Asian American and Pacific Islander Studies (C,M, MMR)	ARTF 191	Cultural Influences on Photography (M)
AMSL 120	American Sign Language Level I (C,M,MMR)	ARTF 194	Critical Photography (M)
AMSL 121	American Sign Language Level II (C,M,MMR)	ARTF 212	Sustainable Art and Design (C)
AMSL 220	American Sign Language Level III (C,M)	^ BLAS 110	African American Art (C,M)
AMSL 221	American Sign Language Level IV (C,M)	^ BLAS 111	Cultural Influences on African Art (M)
ARAB 101	First Course in Arabic (C)	^ BLAS 120	Black Music (C,M)
ARAB 102	Second Course in Arabic (C)	^ BLAS 150	Black Women in Literature, Film and the Media (C,M,MMR)
ARAB 201A	Third Course in Arabic (C)	^ BLAS 155	African American Literature (C,M,MMR)
ARCH 126	History of Ancient World Architecture (M)	CHIC 130	Mexican Literature in Translation (C,M)
ARCH 127	History of World Architecture: Renaissance Through Contemporary (M)	^ CHIC 135	Chicana/o Literature (C,M,MMR)
ARTF 100	Art Orientation (C,M,MMR)	CHIC 138	Literature of La Raza in Latin America in Translation (C,M)
ARTF 106	Art of the United States: Colonial to Modern Period (M)	^ CHIC 190	Chicano Images in Film (C,M)
ARTF 107	Contemporary Art (M,MMR)	^* CHIC 210	Chicano Culture (C,M)
ARTF 108	Women in Art (M)	CHIC 230	Chicano Art (C,M)
ARTF 109	Modern Art (C,M,MMR)	CHIN 101	First Course in Mandarin Chinese (M)
ARTF 110	Art History: Prehistoric to Gothic (C,M,MMR)	CHIN 102	Second Course in Mandarin Chinese (M)
ARTF 111	Art History: Renaissance to Modern (C,M,MMR)	CHIN 201	Third Course in Mandarin Chinese (M)
^ ARTF 113	Arts of Africa, Oceania, and the Americas (M,MMR)	CHIN 202	Fourth Course in Mandarin Chinese (M)
^ ARTF 115	African Art (C,M)	DANC 181	History of Dance (C,M)
^ ARTF 120	Native American Art (M)	DFLM 101	Introduction to Film (MMR)
ARTF 125	Art History: Arts of the Asian Continent (C,M,MMR)	DFLM 102	The American Cinema (MMR)
ARTF 130	Pre-Columbian Art (M)	DRAM 105	Introduction to Dramatic Arts (C,M)
ARTF 188	Women and Gender in Photography (M)	DRAM 107	Study of Filmed Plays (C)
		DRAM 108	Playwriting (C,M)
		^ DRAM 109	Theatre and Social Issues (C,M)
		DRAM 111	Chicana/o Theatre (C)
		DRAM 136	History of Canonized Theatre - Ancient Greece to the Restoration (C,M)
		DRAM 137	History of Canonized Western Theatre - Restoration to the Present (C,M)
		DRAM 150	Cinema as Art and Communication I (M)
		DRAM 151	Cinema as Art and Communication II (M)
		DRAM 205	The American Musical on Stage and Screen (C)
		DSGN 104	Graphic Design History (C)

ENGL 207	The Art of the Sentence (M)	* HIST 131	Latin America Before Independence (M)
ENGL 208	Introduction to Literature (C,M,MMR)	* HIST 132	Latin America Since Independence (M)
ENGL 209	Literary Approaches to Film (C,M,MMR)	HUMA 101	Introduction to the Humanities I (C,M,MMR)
ENGL 210	American Literature I (C,M,MMR)	HUMA 102	Introduction to the Humanities II (C,M,MMR)
ENGL 211	American Literature II (C,M,MMR)	HUMA 103	Introduction to the New Testament (C,M)
ENGL 215	English Literature I: 800–1799 (C,M,MMR)	HUMA 104	Introduction to the Old Testament (M)
ENGL 216	English Literature II: 1800–Present (C,M,MMR)	HUMA 106	World Religions (C,M,MMR)
ENGL 220	Masterpieces of World Literature I: 1500 BCE–1600 CE (C,M,MMR)	HUMA 118	Eastern Humanities (M)
ENGL 221	Masterpieces of World Literature II: 1600–Present (C,M,MMR)	HUMA 119	Western Humanities (M)
^ ENGL 230	Asian American Literature (M, MMR)	HUMA 201	Mythology (C,M,MMR)
^ ENGL 234	Hip Hop Literature: A Poetry Class (C,M,MMR)	HUMA 202	Mythology: Hero's Journey (C)
ENGL 237	Women in Literature (C,M,MMR)	HUMA 205	Exploring Human Values Through Film (M)
ENGL 238	Evaluating Children's Literature (C)	HUMA 210	Women in Religion and Myth (M)
ENGL 240	Shakespeare (C,M)	^ INTE 125	History of Furniture and Interiors (M)
FASH 120	Fashion History and Trends (M)	ITAL 101	First Course in Italian (C,M)
^ FASH 122	Ethnic Costume (M)	ITAL 102	Second Course in Italian (C,M)
FJMP 100	Introduction to Cinema	ITAL 201	Third Course in Italian (C,M)
FREN 101	First Course in French (C,M)	JAPN 101	First Course in Japanese (M)
FREN 102	Second Course in French (C,M)	JAPN 102	Second Course in Japanese (M)
FREN 201	Third Course in French (C,M)	JAPN 201	Third Course in Japanese (M)
FREN 202	Fourth Course in French (C,M)	JAPN 202	Fourth Course in Japanese (M)
GERM 101	First Course in German (C,M)	MULT 116	Unity Game Development (M)
GERM 102	Second Course in German (C,M)	MUSI 100	Introduction to Music (C,M,MMR)
GERM 201	Third Course in German (C,M)	MUSI 103	History of Rock Music (C,M,MMR)
* HIST 100	World History I (C,M,MMR)	^ MUSI 109	World Music (C,M,MMR)
* HIST 101	World History II (C,M,MMR)	MUSI 111	Jazz History (C,M,MMR)
* HIST 105	Introduction to Western Civilization I (C,M,MMR)	MUSI 114	Music of The Beatles (M)
* HIST 106	Introduction to Western Civilization II (C,M,MMR)	MUSI 117	Music in the United States (M)
^* HIST 120	Introduction to Asian Civilizations (C,M,MMR)	MUSI 118	Asian & Pacific Music (M)
^* HIST 121	Asian Civilizations in Modern Times (C,M,MMR)	MUSI 119	Music in Latin America & North America (M)
^* HIST 123	U.S. History from the Asian Pacific American Perspective (C,M, MMR)	MUSI 125	Music, the Arts, and Society (M)
		MUSI 126	Rap Music and Hip Hop Culture (M)
		MUSI 131	Music of California (M)
		MUSI 138	Women in Music (M)

PHIL 102A	Introduction to Philosophy: Reality and Knowledge (C,M,MMR)	VIET 101	First Course in Vietnamese (M)
PHIL 102B	Introduction to Philosophy: Values (C,M,MMR)	VIET 102	Second Course in Vietnamese (M)
PHIL 103	Historical Introduction to Philosophy (M)	VIET 201	Third Course in Vietnamese (M)
PHIL 104A	History Of Western Philosophy: Ancient to Medieval (C,M,MMR)	(4) Social and Behavioral Sciences	
PHIL 104B	History of Western Philosophy: Modern to Contemporary (C,M)	(minimum of 3 semester / 4 quarter units)	
PHIL 105	Contemporary Philosophy (C,M)	^*	AAP1 124 Introduction to Asian American Studies and Pacific Islander Studies (C,M,MMR)
PHIL 106	Asian Philosophy (C,M)		ADJU 101 Introduction to Administration of Justice (C,MMR)
PHIL 107	Reflections on Human Nature (C,M,MMR)	^	ADJU 106 Diversity and Community Relations (MMR)
* PHIL 108	Perspectives on Human Nature and Society (C,M)		ADJU 230 Constitutional Law I (MMR)
PHIL 110	Philosophy of Religion (M)		AGRI 100 Principles of Sustainable Agriculture (C)
PHIL 111	Philosophy In Literature and Other Fiction (C,M)	^	AMSL 150 Introduction to Deaf Culture (M)
PHIL 112	Philosophy of Science (M)	^	ANTH 103 Introduction to Cultural Anthropology (C,M,MMR)
^* PHIL 125	Philosophy of Women (C,M)		ANTH 107 Introduction to Archaeology (C,M,MMR)
PHIL 130	Philosophy of Art and Music (C,M)		ANTH 110 Anthropology of Magic, Witchcraft, and Religion (C,M)
PHIL 131	Environmental Ethics (C,M,MMR)		ANTH 117 Anthropology of Gender and Sexuality (M)
PHOT 150	History of Photography (C)		ANTH 140 Primatology (C,M)
RUSS 101	First Course in Russian (C,M)	^	ANTH 200 Introduction to North American Indians (M)
RUSS 102	Second Course in Russian (C,M)		ANTH 205 Introduction to Medical Anthropology (M)
RUSS 201	Third Course in Russian (M)	^	ANTH 210 Introduction to California Indians (C,M)
SPAN 101	First Course in Spanish (C,M,MMR)		ANTH 215 Cultures of Latin America (C,M)
SPAN 102	Second Course in Spanish (C,M,MMR)	^*	BLAS 100 Introduction to Black Studies (C,M,MMR)
SPAN 201	Third Course in Spanish (C,M,MMR)	^	BLAS 104 Black Psychology (C,M,MMR)
SPAN 202	Fourth Course in Spanish (C,M,MMR)	^	BLAS 115 Sociology from a Black Perspective (C)
SPAN 215	Spanish for Spanish Speakers I (C,M)	^	BLAS 116 Contemporary Social Problems from a Black Perspective (C,M)
SPAN 216	Spanish for Spanish Speakers II (C,M)	^	BLAS 125 Dynamics of the Black Community (M)
SPAN 221	Hispanic Literature for Spanish Speakers (M)	^	BLAS 130 The Black Family (C,M)
SPAN 222	Hispanic Culture and Civilization for Spanish Speakers (M)	^	BLAS 135 Introduction to Black Politics (C)
TAGA 101	First Course in Tagalog (MMR)	^	BLAS 140A African American History to Reconstruction (C,M,MMR)
TAGA 102	Second Course in Tagalog (MMR)		
TAGA 201	Third Course in Tagalog (MMR)		

^	BLAS 140B	African American History since Reconstruction to the Present (C,M,MMR)	^	GEND 101	Introduction to Gender Studies (C,MMR)
^	BLAS 145A	Introduction to African History (C,M)	^	GEOG 102	Cultural Geography (C,M,MMR)
^	BLAS 145B	Introduction to African History (C,M)		GEOG 104	World Regional Geography (C,M,MMR)
	BLAS 165	Sexuality and Black Culture (C,M)		GEOG 154	Introduction to Urban Geography (C,M)
	BLAS 175	Psycho-History of Racism and Sexism (M)	*	HIST 100	World History I (C,M,MMR)
	BUSE 100	Introduction to Business (C,M,MMR)	*	HIST 101	World History II (C,M,MMR)
	BUSE 140	Business Law and the Legal Environment (C,M,MMR)	*	HIST 105	Introduction to Western Civilization I (C,M,MMR)
^*	CHIC 110A	Introduction to Chicana and Chicano Studies (C,M,MMR)		HIST 106	Introduction to Western Civilization II (C,M,MMR)
^*	CHIC 110B	Introduction to Chicano Studies (C,M)		HIST 109	History of the United States I (C,M,MMR)
^	CHIC 140	Chicana/o Sociology (C,M)		HIST 110	History of the United States II (C,M,MMR)
^	CHIC 141A	United States History from a Chicano Perspective (C,M,MMR)	^	HIST 115A	History of the Americas I (C,M,MMR)
^	CHIC 141B	United States History from a Chicano Perspective (C,M,MMR)	^	HIST 115B	History of the Americas II (C,M,MMR)
	CHIC 150	History of Mexico (C,M)	^*	HIST 120	Introduction to Asian Civilization (C,M,MMR)
^	CHIC 155	Introduction to Central American Studies (M)	^*	HIST 121	Asian Civilizations in Modern Times (C,M,MMR)
	CHIC 170	La Chicana (C,M,MMR)	^*	HIST 123	U.S. History from the Asian Pacific American Perspective (C,M,MMR)
	CHIC 201	The Indigenous Tradition of Mexico and Ancient Mesoamerica (C,M)	^	HIST 130	The Modern Middle East (M)
^*	CHIC 210	Chicano Culture (C,M)	*	HIST 131	Latin America Before Independence (M)
	CHIL 101	Human Growth and Development (C,M,MMR)	*	HIST 132	Latin America Since Independence (M)
	CHIL 103	Lifespan Growth and Development (MMR)		HIST 135	History of Technology (M)
^	CHIL 141	The Child, Family and Community (C,M,MMR)		HIST 141	Women in United States History I (M,MMR)
	COMS 201	Communication and Community (C,MMR)		HIST 142	Women in United States History II (M,MMR)
	CRES 101	Conflict Resolution and Mediation (C)	^	HIST 150	Native Americans in United States History I (M)
	ECON 120	Principles of Macroeconomics (C,M,MMR)	^	HIST 151	Native Americans in United States History II (M)
	ECON 121	Principles of Microeconomics (C,M,MMR)		HIST 154	Ancient Egypt (M)
	ECON 220	Economics of the Environment (C,M)		HIST 175	California History (M)
^	ENGL 202	Introduction to Linguistics (C,M)		HUMS 101	Introduction to Human Aging (C)
^*	FILI 100	Filipino American Experience (MMR)		JOUR 202	Introduction to Mass Communication (C,M,MMR)
	FJMP 101	Introduction to Mass Media (C)	^	NUTR 153	Cultural Foods (M)
				PADM 110	Introduction to Law and Society (C,M)

BIOL 130	Introduction to Biotechnology (MMR)	CHEM 233	Organic Chemistry II Lecture (C,M,MMR)
BIOL 131	Introduction to Biotechnology (MMR)	CHEM 233L	Organic Chemistry II Laboratory (C,M,MMR)
BIOL 135	Biology of Human Nutrition (C,MMR)	CHEM 251	Quantitative Analytical Chemistry (C,M,MMR)
BIOL 160	Elements of Human Anatomy & Physiology - (M,MMR)	GEOG 101	Physical Geography (C,M,MMR)
BIOL 180	Plants and People (C,M,MMR)	GEOG 101L	Physical Geography (C,M,MMR)
BIOL 205	General Microbiology (C,M,MMR)	GEOL 100	Physical Geology (C,M,MMR)
BIOL 210A	Introduction to the Biological Sciences I (C,M,MMR)	GEOL 101	Physical Geology Laboratory (C,M,MMR)
BIOL 210B	Introduction to the Biological Sciences II (C,M,MMR)	GEOL 104	Earth Science (C,M,MMR)
BIOL 215	Introduction to Zoology (M)	GEOL 111	The Earth Through Time (C,M,MMR)
BIOL 230	Human Anatomy (C,M,MMR)	GEOL 120	Earth Science (C,M)
BIOL 235	Human Physiology (C,M,MMR)	GEOL 130	Field Geology of San Diego County (C,M,MMR)
BIOL 250	Introduction to Botany (M)	MEDA 55	Fundamentals Human Anatomy and Physiology (M)
CHEM 100	Fundamentals of Chemistry (C,M,MMR)	NUTR 150	Nutrition (C,M,MMR)
CHEM 100L	Fundamentals of Chemistry - Laboratory (C,M,MMR)	NUTR 155	Advanced Nutrition (M,MMR)
CHEM 103	General, Organic, and Biological Chemistry (M,MMR)	OCEA 101	The Oceans (M,MMR)
CHEM 111	Chemistry in Society (C,M,MMR)	PHYN 100	Survey of Physical Science (C,M,MMR)
CHEM 111L	Chemistry and Society Laboratory (C,M)	PHYN 101	Survey of Physical Science Laboratory (C,M,MMR)
CHEM 130	Introduction to Organic & Biological Chemistry (C,M,MMR)	PHYN 105	Physical Science for Elementary Education (M,MMR)
CHEM 130L	Introduction to Organic & Biological Chemistry (C,M,MMR)	PHYN 114	Weather and Climate (C,M,MMR)
CHEM 152	Introduction to General Chemistry (C,M,MMR)	PHYS 100	Introductory Physics (C,M)
CHEM 152L	Introduction to General Chemistry (C,M,MMR)	PHYS 125	General Physics (C,M,MMR)
CHEM 160	Introductory Biochemistry (M,MMR)	PHYS 126	General Physics II (C,M,MMR)
CHEM 200	General Chemistry	PHYS 180A	General Physics I (C,M,MMR)
CHEM 200L	General Chemistry I (C,M,MMR)	PHYS 180B	General Physics II (C,M,MMR)
CHEM 201	General Chemistry I (C,M,MMR)	PHYS 181A	General Physics Lab I (C,M,MMR)
CHEM 201L	General Chemistry II (C,M,MMR)	PHYS 181B	General Physics Lab II (C,M,MMR)
CHEM 231	Organic Chemistry I Lecture (C,M,MMR)	PHYS 195	Mechanics (C,M,MMR)
CHEM 231L	Organic Chemistry I Laboratory (C,M,MMR)	PHYS 196	Electricity and Magnetism (C,M,MMR)
		PHYS 197	Waves, Optics and Modern Physics (C,M,MMR)
		PSYC 260	Introduction to Physiological Psychology (C,M,MMR)

(6) Ethnic Studies

(minimum of 3 semester/4 quarter units)

*^	BLAS 100	Introduction to Black Studies (C,M,MMR)
*^	CHIC 110A	Introduction to Chicana and Chicano Studies (C, M, MMR)
*^	CHIC 110B	Introduction to Chicana and Chicano Studies (C, M)
*^	FILI 100	Filipino American Experience (MMR)

Certificate of Achievement

Programs in which a Certificate of Achievement may be awarded are described in the Degree Curricula and Certificate Programs section of this catalog. Certificate programs are designed for students with specific personal or occupational goals. To qualify for the Certificate of Achievement, students must satisfy the following requirements:

1. meet all standards for admission to the desired certificate program;
2. earn a grade of "C" or higher in each course. A "P" (pass) grade meets this requirement; and
3. a minimum of six semester units of the required courses for the major must be completed at City, Mesa or Miramar College.

Certificate of Performance

Programs in which a Certificate of Performance may be awarded are described in the Degree Curricula and Certificate Programs section of this catalog. A Certificate of Performance recognizes the attainment of knowledge and/or skill through the successful completion of two or more courses as specified by a department. Certificates of Performance are designed to prepare students for employment, job enhancement and/or job advancement. To qualify for the Certificate of Performance, students must satisfy the following requirements:

1. Achieve a grade of "C" or better in each of the required courses. A "P" (pass) grade meets this requirement.
2. Complete all required course work in the San Diego Community College District.
3. Course substitutions or course equivalencies from other colleges may not be used to satisfy Certificate of Performance requirements.

For additional information, contact the campus Evaluations Office or subject-area department.

Graduation

Apply for Graduation

Graduation from City College is not automatic. Students who expect to receive an Associate Degree or Certificate of Achievement must Apply for Graduation online at: <https://myportal.sdccd.edu/>

Students who expect to receive an Associate Degree and/or a Certificate of Achievement are encouraged to apply for graduation after they have registered for the semester in which they plan to complete the requirements for their degree program.

The deadline dates for applying to graduate, can be found online at <https://www.sdccd.edu/students/evaluations/graduation/graduation-deadlines.aspx>

Official college transcripts from all colleges attended must be on file before submitting the graduation application for an Associate Degree.

In cases where a student has taken courses at institutions outside of the San Diego Community College District (SDCCD) that are necessary for completing their Certificate of Achievement requirements, only the transcript from the institution where the relevant course(s) was completed is required.

An evaluation is a summary of college work completed and of requirements to be completed for the associate degree or the certificate of achievement. Only evaluations completed by one of the Evaluators are official.

Petition for Exceptions

Petitions for exceptions to graduation requirements, substitutions, or waiver of requirements are filed with the Evaluations Office. All petitions are acted upon by the appropriate college committees/offices. Petitions are submitted online at <https://www.sdccd.edu/students/forms-and-documents.aspx>.

Catalog Rights

Students who maintain continuous enrollment may choose to graduate under the (City College, Mesa College, and Miramar College) catalog in effect at the time they began their studies in a California Community College, California State University, or University of California campus, or under the catalog in effect at the time of graduation.

Certification of a student's completion of CSU general education requirements or the Intersegmental General Education Transfer Curriculum (IGETC) is not a graduation requirement. Therefore, students do not have catalog rights to a certification pattern used by a certifying institution or a CSU or UC campus.

Continuous Enrollment

Continuous enrollment is defined as enrollment within a calendar year in either the CSU, UC, or California Community College System. Withdrawals are considered enrollment.

Awarding of Degrees or Certificates

Associate Degrees/Certificates of Achievement will be awarded at the end of the semester in which the requirements are completed.

The graduation ceremony is held once a year. Candidates for Fall, Spring and Summer graduation may participate in the ceremony which is held at the end of the Spring semester.

Associate Degree Initiative

The San Diego Community College District proactively reviews student academic records to determine if program requirements for an associate degree have been met.

Student academic records will be reviewed if the student:

- completed at least 70 degree applicable units,
- submitted all transcripts from other institutions attended, and
- has an education plan on file.

If the degree requirements are met, students will be notified via email and awarded a diploma. Students have until the end of the semester to decline the degree.

All students may participate in the commencement ceremony which occurs annually at the end of the spring semester. Note that students who plan to transfer to a California State University (CSU), may want to consider an *Associate Degree for Transfer* and should consult a counselor or the Transfer Center for options.

Diplomas

Diplomas are issued only after completion of all graduation requirements has been verified. Diplomas will be issued in the name and to the address of record at the time the diploma is awarded. For information on obtaining your diploma or certificate of achievement, or a duplicate copy, please visit <https://www.sdccd.edu/students/forms-and-documents.aspx>.

Graduation with Distinction

Graduation with honors distinction will be based upon all coursework that is associate degree and lower division baccalaureate degree applicable.

Graduation with Honors is granted to students who achieve an overall 3.5 GPA, High Honors is granted to students who achieve an overall 3.75 GPA, and Highest Honors is granted to students who achieve an overall 4.0 GPA for coursework for the degree or certificate.

Students will be notified that this distinction is pending at the time of the graduation ceremony, when the GPA will be calculated based upon degree or certificate applicable coursework completed for the degree or certificate through the Fall semester of the year of the ceremony. The final distinction will be determined upon completion of all coursework completed through the Fall semester for fall graduates, the Spring semester for spring graduates or the summer term for summer graduates.

Graduation with Latin Honors (Baccalaureate Degrees Only)

Candidates for the Health Information Management Bachelor's of Science Degree may be eligible for Latin Honors at the time of graduation if they have fulfilled the following cumulative GPA requirements:

- Summa Cum Laude Honors: GPA equal to 4.0
- Magna Cum Laude: GPA equal to or greater than 3.75 but less than 4.0
- Cum Laude: GPA equal to or greater than 3.5, but less than 3.75

Students will be notified that this distinction is pending at the time of the graduation ceremony, when the GPA will be calculated based upon degree applicable coursework for the degree through the fall semester of the year of the ceremony. The final distinction will be determined upon the completion

of all coursework completed through the fall semester for fall graduates the spring semester for spring graduates, or the summer semester for summer graduates.

Additional College Degree

A student having received an associate or baccalaureate degree may qualify for an additional Associate of Arts or Associate of Science degree in a new major or concentration.

An additional degree:

1. Permits upgrading or preparation for upgrading current employment.
2. Prepares for employment in an area different from that provided by previous training.
3. Provides general knowledge leading to fulfillment of personal goals.
4. Allows the student to improve priority of transfer applications by earning an Associate Degree for Transfer (ADT).

The following requirements are applicable:

1. A student must earn a minimum of 6 mutually exclusive required semester units in the new major or emphasis. A minimum of twelve (12) semester degree-applicable units must be completed in residence at the college granting the degree.
2. A student must fulfill current catalog degree requirements if continuous enrollment has not been maintained.
3. Counselors will review all previous college work to determine the student's eligibility for a second degree. The student must Apply for Graduation online at: <https://myportal.sdccd.edu/>

ADT Exemption: Students who have previously been awarded an Associate Degree, and wish to receive one ADT in the same or similar major, will be exempt from the additional unit requirement of 6 new units.

Gainful Employment and Licensure Eligibility Requirements

Data on Gainful Employment and Licensure Eligibility Requirements are available at <https://www.sdccd.edu/departments/educational-services/instruction/>.

Transfer Guide

<i>At-A-Glance</i>	<i>Page</i>
University Transfer.....	118
Steps to Transfer	118
University of California and California State University.....	125
Intersegmental General Education Transfer Curriculum (IGETC).....	126
The CSUGE-Breadth Pattern	133
Other Transfer General Education Options.....	141

University Transfer

What is Transfer?

Transfer is the process of continuing your education at a baccalaureate-degree granting college or university, usually after completing your major preparation and general education at a community college. If planned correctly, the courses that you pass at community college will count towards requirements for your Bachelor degree just as if they had been taken at the four-year institution. City College students transfer to a wide variety of universities within California and throughout the world.

Transfer Services

Students are advised to plan transfer programs as early as possible and enroll in transferable courses in both general education and in courses that prepare for the specific university major. Questions related to transfer programs should be discussed with counselors or the Transfer/Career Center staff. Students interested in transfer should meet a counselor in the Counseling Department, A-301 to develop a Transfer Educational Plan which will identify the courses needed to transfer. The Transfer/Career Center is located Room A-301. For information, call 619-388-3722.

The City College Transfer Center is designed to help you during each step of your transfer experience to ensure a smooth and positive transition. A variety of resources are available, including:

- Academic/Career Counseling
- Guidance in researching and selecting a transfer institution
- Individual appointments with representatives from UC, CSU, and independent colleges and universities
- Transfer Workshops
- Transfer Admissions Agreements and Guarantees with selected universities
- A library of catalogs & college publications
- Information on important dates and deadlines
- Computer software for college research
- Transfer Fairs
- Field Trips

For additional information regarding specific services, contact the San Diego City College Transfer/Career Center in Room A-301 at 619-388-3722 or the Counseling Department in Room A-366 at 619-388-3540, or visit: <https://www.sdcity.edu/academics/transfer/index.aspx>.

Steps to Transfer

STEP 1: Career Exploration

Career Objective: Your career objective will determine the type of degree you need and your choices for selecting a major. See a counselor for more assistance.

STEP 2: Choosing Your University Major

A major is a field of study that you emphasize in your college education. It is what you “specialize” in with your degree. It’s important to remember that your major is what you will study at the university you transfer to. At City College, you can prepare to transfer into virtually any major at any university—there are literally thousands to choose from. To narrow down the options, students often begin to select their major by one of the following techniques:

- If you have an idea of the career field you want to enter, you can find majors that are related to, or prepare for, that career field. Majors and career fields are not always “perfectly matched.” However, knowing your intended career field can help narrow your options. You can visit the Counseling Department or Transfer/Career Center for assistance in researching career fields.
- If you know what university you want to attend, you can select from the list of majors at that university. Lists of majors at California public universities are available at www.assist.org (click on “Explore Majors”).
- If you think you might be interested in a particular major but are not sure, try taking a general education class in the major and see how you like it. Students often select their major based simply on the courses that are the most interesting to them.
- For descriptions of the 75 most popular majors, visit: www.petersons.com/.

STEP 3: Choosing Your Transfer University

Each university may have different transfer requirements, so choosing a transfer university is important to ensure you complete the right courses. Universities in the United States are organized into different systems and categories. Choosing a transfer university is also important because:

- The majors offered at each university are different.
- Each university has unique features, including factors like its student body, its location, and its extracurricular activities.
- You are more likely to do well academically in a university environment that you enjoy.

The most common universities that City students transfer to include:

University of California (UC)

Combines undergraduate education (leading to a Bachelor's degree) with emphasis on graduate program (Master and Doctorate degrees) and research. Relatively inexpensive for California residents. UC San Diego (UCSD) is one of the 10 universities in the University of California system. See www.universityofcalifornia.edu for details.

UC Minimum Admission Requirements

Transfer students will be eligible for admission if they meet the following requirements:

1. Complete a minimum of 60 UC-transferable semester units or 90 transferable quarter units.
2. Obtain a minimum 2.4 GPA (2.8 for California non-residents). The GPA for admission can be significantly higher due to the applicant pool.
3. Complete two UC-transferable college courses in English composition (3 semester or 4–5 quarter units each) and one transferable college course in mathematical concepts and quantitative reasoning (3 semester or 4–5 quarter units).
4. Complete four UC-transferable college courses chosen from at least two of the following subject areas: arts and humanities, social and behavioral sciences, physical and biological sciences.

The UC gives high priority to students who complete major preparation coursework early in their academic career.

Students who complete the Intersegmental General Education Transfer Curriculum (IGETC) pattern prior to transferring to the UC system will meet the transfer eligibility coursework requirement listed above (for details on IGETC, see appropriate section of this guide for details). Students are strongly recommended to meet with a counselor to discuss additional requirements for competitive admissions based on major and campus choice.

UC Transfer and Physical Education Activity Courses

The University of California grants a maximum of four semester units of credit for appropriate Physical Education activity courses. Courses that are subject to this limit are listed as such on the college's UC Transfer Course Agreement, available on web ASSIST at www.assist.org under the UC Transferable Courses link. Physical Education Theory courses or courses that do not fit either the Theory or Activity category are not included in the four semester credit limit.

UC Transfer and Variable Topics Courses

These courses are also called "Independent Studies", "Special Studies", "Special Topics", "Internships", "Field Work", etc. Credit for variable topics courses is given only after a review of the scope and content of the course by the enrolling UC campus. This usually occurs after transfer and may require recommendations from faculty. UC does not grant credit for variable topics courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments because of credit restrictions in these areas.

California State University (CSU)

Emphasizes undergraduate education (leading to a Bachelor's degree) but also offers Master degrees. Professors spend more time in the classroom and less time on research than those in the University of California system. Emphasizes preparation for specific careers. Relatively inexpensive for California residents. San Diego State University (SDSU) and CSU San Marcos are two local universities in the 23-campus California State University system. See www.calstate.edu for details.

CSU Minimum Admission Requirements

Transfer students will be eligible for admission if they meet the following requirements:

1. Complete a minimum of 60 CSU-transferable semester units or 90 transferable quarter units.
2. Obtain a minimum 2.0 GPA (2.4 for California non-residents). Impacted majors may have higher GPA Requirements.
3. Complete “The Golden Four” (Oral Communications, Written Communication, Critical Thinking, and Mathematics/Quantitative Reasoning) with a grade of “C” or better. Pass/No-Pass grades are not recommended in these areas.

Students are urged to complete a General Education pattern such as CSUGE-Breadth or IGETC (see appropriate section of this guide for details).

Students are strongly recommended to meet with a counselor to discuss additional requirements for competitive admissions based on major and campus choice.

Associate Degrees for Transfer are another option to transfer to the CSU system. See your counselor or Transfer/Career Center for details.

Private Colleges and Universities

Colleges and universities that are not funded by public taxes, sometimes also called “independent.” Each university is unique with its own programs, majors, and degrees. Some offer academic programs grounded in a specific religion or philosophy. Others offer programs in only one discipline, such as the arts or technical degrees. Others specialize in providing continuing education to working adults. Usually smaller and more focused in academic emphasis than public universities. Useful websites: <https://aiccu.edu>, <http://sandiegocolleges.org/home>

Historically Black Colleges and Universities (HBCU's)

Usually have a majority African-American student body, although students of all races attend them. May be private or out-of-state public schools. Most are located in the southern United States. See <https://hbcuconnect.com/colleges/> for details.

Hispanic-Serving Institutions

The Hispanic Association of Colleges and Universities (HACU) is a national educational association that represents colleges and universities committed to Hispanic Higher education success in the United States (including Puerto Rico), Latin America, and Spain. HACU has 193 member Hispanic-Serving

Institutions (HSIs) located in 11 U.S. states and Puerto Rico. To be considered a Hispanic-Serving Institution, the Hispanic enrollment at a college or university must be at least 25 percent of the total student enrollment. California is home to 54 Hispanic-Serving Institutions. See www.hacu.net for details.

Tribal Colleges and Universities

There are 35 federally recognized Tribal Colleges and Universities in the United States. Located mainly in the Midwest and Southwest, Tribal Colleges and Universities service approximately 30,000 full- and part-time students. They offer two-year associate degrees in over 200 disciplines with some providing a bachelor's and master's degree. They also offer 200 vocational certificate programs. See www.aihec.org for details.

Out-of-State Colleges and Universities

Colleges and universities that are not in California. May be public or private. Useful websites:

- www.wiche.edu
- www.regionaladmissions.com
- www.collegesource.org

STEP 4: Application

Major Preparation

Some majors require specific lower-division courses to be admitted to a major upon transfer. For public universities in California, visit www.assist.org for this articulation information. Articulation is the process whereby a course (or set of courses) offered at one institution is accepted as equivalent to or in lieu of a comparable course (or set of courses) at another institution. For current City College articulation agreements with private/independent universities, visit the Transfer Center website at <https://www.sdccity.edu/academics/transfer/index.aspx>.

General Education Requirements:

General Education requirements are courses required of everyone regardless of major. Each university has different general education patterns. City students can choose from the following:

- a. Complete specific general education requirements for an individual university, or
- b. Complete the approved Intersegmental General Education Transfer Curriculum (IGETC) pattern of courses acceptable at all campuses

of the CSU, most campuses of the UC, and some private institutions, or

- c. Complete the approved CSUGE-Breadth pattern of lower-division courses acceptable at all campuses of the CSU system.

It is strongly advised that you work closely with a counselor before making a decision. For a list of transfer GE options for the IGETC coursework patterns see page 126.

General Education Certification

General Education Certification is a legal agreement between the UC or CSU systems and the California Community Colleges that permits a student to transfer from a community college to a UC or CSU campus without the need to complete additional lower division general education courses to satisfy university GE requirements after transfer. City College will provide an IGETC or CSUGE-Breadth certification to one university campus when specifically requested by the student. This certification may include courses taken from other colleges, or credit earned through other means, such as Advanced Placement (AP) test credit. Students do not have “catalog rights” to a certification pattern. Additional information on certification rules that are specific to the IGETC and CSUGE-Breadth patterns are discussed later in those sections.

Students who transfer without certification may have to meet additional GE requirements at the university. This often means taking additional courses after transfer.

Completion of the IGETC or CSUGE-Breadth pattern also fulfills the requirements for a Certificate of Achievement in General Education (see “General Education” on page 251). Students who complete one of these patterns and additional transfer coursework may also qualify to complete the City College associate degree in Liberal Arts & Sciences (see page 265). The following Areas of Emphasis or Specialization are available:

- Language Arts and Humanities
- Scientific Studies Biological Science
- Scientific Studies Mathematics and Pre-Engineering
- Scientific Studies Physical and Earth Sciences Specialization
- Social and Behavioral Sciences
- Visual and Performing Arts

Electives

Electives are additional courses taken to meet the number of required units or to meet additional lower-division graduation requirements. Make sure the courses you select are transferable courses by referring to the course descriptions in this catalog.

Other Transfer General Education Options

Some transfer students are best served by following a general education pattern other than the IGETC or CSUGE-Breadth patterns. These typically include students who fall into one of the following three categories:

1. Students entering high unit majors such as an engineering or science discipline. Major preparation for the engineering and science fields typically consists of a high number of units. Most universities prefer (and some require) that these preparation for major courses be completed prior to transfer. Therefore, it may be more beneficial for students entering these majors to complete relatively fewer GE courses and more major preparation courses at the community college, while still meeting the minimum admission requirements of the university. Students should review the catalog or other published advising materials of the university and major to which they intend to transfer and then consult a City counselor for assistance in selecting appropriate courses.
2. Students transferring to a private/independent or out-of-state university. Some private/independent and out-of-state universities accept IGETC or CSUGE-Breadth, but most do not. Instead, each university has its own unique GE pattern. City College has established articulation agreements with many of these institutions. These agreements specify the courses students can complete at City to fulfill the university's GE requirements. They are available at www.sdcity.edu/about/articulation/index.aspx. For more information on transferring to a private/independent or out-of-state university, visit the Transfer Center (A-301) or see a counselor.
3. Students who wish to complete the general education requirements of one specific university. Some students decide to complete the GE requirements for one specific university, rather than the more universally applicable IGETC or CSUGE-Breadth patterns, for several reasons:

- Some universities and/or majors do not accept IGETC and instead suggest following the university's own GE pattern.
- Some students know that they will attend only one university (such as those with a guarantee of transfer admission) and so plan to complete the specific GE pattern for that institution only.
- Some university-specific GE patterns require fewer total units than IGETC or CSUGE-Breadth.

Each university's unique GE pattern can be found in the university catalog. In addition, some UC and CSU campuses have posted their unique general education patterns to the ASSIST website at www.assist.org.

Guarantee Admission Programs

City College offers a number of Guaranteed Admission Programs. Come to the Transfer Center for program requirements. Plan early as some agreements must be signed at least a year in advance of the transfer semester/quarter. Interested students are strongly urged to meet with a Counselor for program details as requirements and eligibility often change.

Please refer to page 99 for Associate in Arts for Transfer (AA-T) or Associate in Science for Transfer (AS-T) for California State University (CSU) offered at San Diego City College.

STEP 5: Applying to a University

About applying for admission

Universities require you to apply and be admitted before you start attending school there. All students who apply must meet the minimum requirements (usually certain coursework requirements and a minimum transferable GPA). Some schools accept all transfer students who meet the minimum requirements, while others go through a selection process to determine which students will be offered admission.

Application dates and deadlines

Different systems have different dates and deadlines to apply. If you plan to attend a private/independent or out-of-state university, you should check with that school to find their application deadline and procedures. The following dates and deadlines apply to California public universities only:

California State University

Term of Transfer	Initial Filing Period
Summer	February 1–28/29 of current year
Fall	October 1–November 30 of preceding year
Winter	June 1–30 of preceding year
Spring	August 1–31 of preceding year

University of California

Term of Transfer	Initial Filing Period
Fall Semester or Quarter	October 1– November 30 of preceding year
Winter Quarter	July 1–31 of preceding year
Spring Quarter	October 1–31 of preceding year

All campuses are open for any given Fall term. For Winter/Spring terms, students should verify that the specific campus accepts transfers for that specific term. Check www.calstate.edu for CSU campuses and www.universityofcalifornia.edu for UC campuses.

Each campus accepts applications until the end of the filing period or until capacities are reached. If applying after the initial filing period check the campus websites to verify if the campus is still open.

How to apply

The UC and CSU systems strongly encourage all students to apply using the online application process. Not only does it make it easier to read and evaluate your application, but the websites also “check your work” to make sure you are not missing any required information before you submit your final application.

The UC application is available at:
www.universityofcalifornia.edu/apply

The CSU application is available at:
www2.calstate.edu/apply

STEP 6: Final Steps to Transfer

Many universities require you to submit documents, take assessment exams, attend orientations, or meet other requirements before you enroll. It's also a good idea to apply for your degree and General Education certification from City College prior to transfer. You should do as much as you can now to make the transition to your university as smooth as possible.

Apply to Graduate from City

Graduation from City College is not automatic. You must apply to graduate online at <https://myportal.sdccd.edu> to receive your degree or certificate. We recommend you apply to graduate even if you are only completing transfer coursework. Most transfer students are eligible to receive a General Education Certificate (see page 106) and/or an Associate degree in a transfer-related subject area (see page 100). You should apply to graduate during your second to last semester at City College.

File for General Education (GE) Certification

GE certification is a legal agreement between City College and a California public university (UC or CSU campus) that all of your lower division GE requirements have been completed. Certification can be awarded for completion or part of completion of the IGETC or CSUGE-Breadth patterns. Some California private/independent situations also accept IGETC or CSUGE-Breadth certification. IGETC or CSUGE-Breadth certification also fulfills the requirements for a General Education Certificate. You should file for GE certification when you are enrolled in your final GE courses and know which university you will be attending. Apply at the Evaluations Office in A-301.

Attend Graduation

You don't have to attend City College graduation to transfer or to receive a degree, but it's a great way to celebrate and be publicly recognized for your achievement. You earned it! Information about the graduation ceremony is available on the City College website at www.sdccity.edu/graduation.

Find Out How to Get There

Are you using public transportation to commute to your new university? It's a good idea to figure out your best route to the university now, before you start attending.

Submit Intent to Register and Transcripts

After offering you admission, most universities require you to send a statement of intent to register

(SIR), official transcripts, a deposit, and sometimes additional materials. Review your university admission paperwork for details. Information on ordering transcripts from the San Diego Community College District is available at www.sdccd.edu/students/evaluations/transcripts-information.aspx.

Attend New Student Orientation

Most universities offer a new student orientation day, where you learn about university services and requirements, get academic advising, tour the campus, etc. Review your university admission paperwork for details.

Complete Assessment Tests

Some universities require transfer students to complete assessment tests either prior to enrollment or during their first year of attendance. Review your university admission paperwork for details.

Find Housing

Are you going to live on campus? If so, you will need to apply for campus housing. See your university admission paperwork or the university website for more information. If you are living off campus you may need to start searching for housing in the local community. Most universities have housing assistance offices to help you.

Send Your Final Transcripts

You are usually required to send your university a final official transcript after the end of your last regular semester prior to transfer. Information on ordering transcripts from the San Diego Community College District is available at: www.sdccd.edu/students/evaluations/transcripts-information.aspx.

Meet Immunization Requirements

Most universities require you to provide documentation of immunizations against certain communicable diseases, like measles or rubella. Review your university admission paperwork for more information.

CSU U.S. History, Constitution, and American Ideals Certification

The California State University, before awarding a degree, requires students to complete courses or examinations that address:

1. The historical development of American institutions and ideals (Area US-1), and
2. The Constitution of the United States and the operation of representative democratic

government under that Constitution (Area US-2), and

3. The process of California state and local government (Area US-3).

This requirement may be fulfilled at a California Community College prior to transfer by completing a combination of courses that satisfies all three areas of the requirement. The requirement may also be completed at a CSU campus after transfer. Courses approved in two US areas may be used to satisfy both areas.

Although this requirement is not part of the General Education requirements for CSU, all students must complete course work in U.S. History, Constitution and Government before graduation from a CSU campus. The courses may also be used to partially fulfill Area D of the CSU General Education Breadth Requirements.

A check mark [✓] indicates course has been approved to meet the requirement for the area.

Note: Not required for Certification.

Course	Area US-1: Development of American Institutions	Area US-2: US Constitution	Area US-3: California State & Local Governments
BLAS 140A African American History to Reconstruction (C,M,MMR)	✓	✓	
BLAS 140B African American History since Reconstruction to the Present (C,M,MMR)	✓		✓
CHIC 141A U.S. History from a Chicano Perspective (C,M,MMR)	✓	✓	
CHIC 141B U.S. History from a Chicano Perspective (C,M,MMR)	✓		✓
HIST 109 History of the United States I (C,M,MMR)	✓	✓	
HIST 110 History of the United States II (C,M,MMR)	✓		✓
HIST 115A History of the Americas I (C,M,MMR)	✓	✓	
HIST 115B History of the Americas II (C,M,MMR)	✓		✓
HIST 123 U.S. History from the Asian Pacific American Perspective (C,M,MMR)	✓		✓
HIST 141 Women in United States History I (M,MMR)	✓	✓	
HIST 142 Women in United States History II (M,MMR)	✓		✓
HIST 150 Native Americans in United States History I (M)	✓	✓	
HIST 151 Native Americans in United States History II (M)	✓		✓
HIST 175 California History (M)			✓
POLI 102 Introduction to American Government (C,M,MMR)		✓	✓
POLI 121 American Political Development (C,M,MMR)	✓	✓	
NOTES:			
<ul style="list-style-type: none"> • Completion of the Advanced Placement examination in U.S. History with a score of 3 or higher will satisfy the requirement for Area US-1. • Completion of the Advanced Placement examination in U.S. Government & Politics with a score of 3 or higher will satisfy the requirement for Area US-2. • Students who have completed this requirement except for the California government portion must complete one course approved in Area US-3. 			

Transfer General Education Options

University of California and California State University

Intersegmental General Education Transfer Curriculum (IGETC) (Option 3)

About The IGETC Pattern

The Intersegmental General Education Transfer Curriculum (IGETC) is a general education pattern that will fulfill all lower-division general education requirements at all California State University (CSU) campuses and most University of California (UC) campuses/majors. It is also accepted by some private/independent or out of state universities. IGETC is usually recommended for students who intend to transfer to a UC campus, or who are not yet sure of their intended transfer university. Completion of the IGETC pattern is not an admission requirement for transfer to most UC or CSU campuses, nor is it the only way to fulfill the lower division GE requirements of a UC or CSU campus prior to transfer.

IGETC for STEM

Students pursuing an Associate Degree for Transfer in Biology are eligible to take IGETC for STEM, deferring two lower-division GE courses until after transfer. IGETC for STEM is applicable only to Biology majors in which the Transfer Model Curriculum explicitly indicates the availability of the option.

Students using IGETC for STEM may delay until after transfer:

- a. One general education course in Area 3 (Arts and Humanities); and
- b. One general education course in Area 4 (Social and Behavioral Sciences).

It is strongly recommended that students consult with a counselor to determine which general education pattern is most appropriate for their individual educational goals.

Additional IGETC information and restrictions:

- Each course must have been IGETC approved at the time it was completed. See www.assist.org for a list of certified courses and approval dates.

- Courses may be approved for more than one IGETC area. However, each course may be used to certify only one of the areas it is approved for.
- Students should apply for IGETC certification at the last community college attended prior to transfer. IGETC certification requests will be processed for students who have completed at least one course at a SDCCD college. Certification forms are available at the Counseling or Evaluations Office.
- AP credit and coursework completed at accredited U.S. colleges and universities may be used to fulfill some IGETC requirements. All such credit must be evaluated through the Evaluations office. Courses completed at a foreign college or university cannot be used to satisfy IGETC general education requirements.
- All courses must be passed with a "C" or higher. Pass (P) grades are also acceptable. "C-" is not acceptable.
- Students transferring to UC need not complete the Oral Communication requirement (Area 1C).
- Students transferring to CSU need not complete the Languages Other than English requirement.
- Some UC campuses do not allow use of IGETC for students who were previously enrolled at a UC campus.
- Some community college courses have limitations on the amount of credit awarded by the receiving university. See a counselor, the course description in the college catalog, or www.assist.org for more information.

IGETC is not recommended for the following transfer destinations:

- UC San Diego Eleanor Roosevelt and Revelle Colleges
- UC Berkeley Colleges of Business, Chemistry, Environmental Design (Architecture), Engineering, Natural Resources, Optometry
- UC Davis College of Engineering
- UC Irvine Schools of Engineering, Biological Sciences, Physical Sciences
- UC Riverside Colleges of Engineering, Natural and Agricultural Sciences
- UC Santa Barbara Colleges of Engineering, Creative Studies

- UC Los Angeles Schools of Engineering and Applied Science, Nursing

The IGETC Pattern

- () Colleges in parenthesis indicate where the course is approved for IGETC Requirements.
 C—City College
 M—Mesa College
 MMR—Miramar College
- * Courses with asterisks are listed in more than one area but shall not be certified in more than one area.
- + Courses with pluses indicate transfer credit may be limited by either UC or CSU, or both. Please consult a counselor for additional information.
- @ Courses with @ symbols indicate CSU-only requirements.

Area 1—English Communication

2–3 courses, 6–9 semester/8–12 quarter units

Group A: English Composition

1 course, 3 semester/4–5 quarter units

- ENGL 101 Reading and Composition (C,M,MMR)
 OR
 ENGL 105 Composition and Literature (C,M,MMR)

Group B: Critical Thinking - English Composition

1 course, 3 semester/4–5 quarter units

Courses must have English Composition as a prerequisite

- ENGL 205 Critical Thinking and Intermediate Composition (C,M,MMR)
 HIST 205 Methodology and Practice in History (M)
 PHIL 205 Critical Thinking and Writing in Philosophy (C,M,MMR)

Group C: Oral Communication

1 course, 3 semester/4–5 quarter units

- @ COMS 103 Oral Communication (C,M,MMR)
 @ * COMS 135 Interpersonal Communication (C,M,MMR)

- @ COMS 160 Argumentation and Critical Thinking (C,M,MMR)
 @ COMS 170 Small Group Communication (C,M,MMR)

Area 2A—Mathematical Concepts and Quantitative Reasoning

1 course, 3 semester/4–5 quarter units

Courses must have Intermediate Algebra as a prerequisite.

- + BIOL 200 Biological Statistics (M,MMR)
 + BUSE 115 Statistics for Business (C,M,MMR)
 CISC 246 Discrete Mathematics for Computer Science (M,MMR)
 + MATH 115 Gateway to Experimental Statistics (C)
 + MATH 116 College and Matrix Algebra (C,M,MMR)
 + MATH 119 Elementary Statistics (C,M,MMR)
 + MATH 121 Basic Techniques of Applied Calculus I (C,M,MMR)
 + MATH 122 Basic Techniques of Calculus II (C,M,MMR)
 + MATH 141 Precalculus (C,M,MMR)
 + MATH 150 Calculus with Analytic Geometry I (C,M,MMR)
 + MATH 151 Calculus with Analytic Geometry II (C,M,MMR)
 MATH 245 Discrete Mathematics (C,M,MMR)
 MATH 252 Calculus with Analytic Geometry III (C,M,MMR)
 MATH 254 Introduction to Linear Algebra (C,M,MMR)
 MATH 255 Differential Equations (C,M,MMR)
 + POLI 201 Elementary Statistics for Political Science (C,M)
 + PSYC 258 Behavioral Science Statistics (C,M,MMR)

Area 3—Arts and Humanities

3 courses, 9 semester/12–15 quarter units

At least one course from the Arts and one from the Humanities.

3A: Arts Courses

- ARTF 100 Art Orientation (C,M,MMR)
 ARTF 106 Art of the United States: Colonial to Modern Period (M)
 ARTF 107 Contemporary Art (M,MMR)

ENGL 215	English Literature I: 800–1799 (C,M,MMR)	JAPN 202	Fourth Course in Japanese (M)
ENGL 216	English Literature II: 1800–Present (C,M,MMR)	PHIL 102A	Introduction to Philosophy: Reality & Knowledge (C,M,MMR)
ENGL 220	Masterpieces of World Literature I: 1500 BCE–1600 CE (C,M,MMR)	PHIL 102B	Introduction to Philosophy: Values (C,M,MMR)
ENGL 221	Masterpieces of World Literature II: 1600–Present (C,M,MMR)	PHIL 103	Historical Introduction to Philosophy (M)
ENGL 230	Asian American Literature (M,MMR)	PHIL 104A	History Of Western Philosophy: Ancient to Medieval (C,M,MMR)
ENGL 234	Hip Hop Literature: A Poetry Class (C,M,MMR)	PHIL 104B	History of Western Philosophy: Modern to Contemporary (C,M)
ENGL 237	Women in Literature (C,M,MMR)	PHIL 105	Contemporary Philosophy (C,M)
ENGL 240	Shakespeare (C,M)	PHIL 106	Asian Philosophy (C,M)
FREN 102	Second Course in French (C,M)	PHIL 107	Reflections on Human Nature (C,M,MMR)
FREN 201	Third Course in French (C,M)	PHIL 108	Perspectives on Human Nature & Society (C,M)
FREN 202	Fourth Course in French (C,M)	PHIL 110	Philosophy of Religion (M)
GERM 102	Second Course in German (C,M)	PHIL 111	Philosophy In Literature and Other Fiction (C,M)
GERM 201	Third Course in German (C,M)	PHIL 112	Philosophy of Science (M)
* HIST 100	World History I (C,M,MMR)	PHIL 125	Philosophy of Women (C,M)
* HIST 101	World History II (C,M,MMR)	* PHIL 126	Introduction to Philosophy of Contemporary Gender Issues (C,M)
* HIST 105	Introduction to Western Civilization I (C,M,MMR)	PHIL 130	Philosophy of Art and Music (C,M)
* HIST 106	Introduction to Western Civilization II (C,M,MMR)	PHIL 131	Environmental Ethics (C,M,MMR)
* HIST 120	Introduction to Asian Civilizations (C,M,MMR)	RUSS 102	Second Course in Russian (C,M)
* HIST 121	Asian Civilizations in Modern Times (C,M,MMR)	RUSS 201	Third Course in Russian (M)
* HIST 131	Latin America Before Independence (M)	+ SPAN 102	Second Course in Spanish (C,M,MMR)
* HIST 132	Latin America Since Independence (M)	+ SPAN 201	Third Course in Spanish (C,M,MMR)
HUMA 101	Introduction to the Humanities I (C,M,MMR)	SPAN 202	Fourth Course in Spanish (C,M,MMR)
HUMA 102	Introduction to the Humanities II (C,M,MMR)	SPAN 215	Spanish for Spanish Speakers I (C,M)
HUMA 103	Introduction to the New Testament (C,M)	SPAN 216	Spanish for Spanish Speakers II (C,M)
HUMA 104	Introduction to the Old Testament (M)	SPAN 221	Hispanic Literature for Spanish Speakers (M)
HUMA 106	World Religions (C,M,MMR)	SPAN 222	Hispanic Culture and Civilization for Spanish Speakers (M)
HUMA 118	Eastern Humanities (M)	TAGA 102	Second Course in Tagalog (MMR)
HUMA 119	Western Humanities (M)	TAGA 201	Third Course in Tagalog (MMR)
HUMA 201	Mythology (C,M,MMR)	VIET 102	Second Course in Vietnamese (M)
HUMA 205	Exploring Human Values through Film (M)	VIET 201	Third Course in Vietnamese (M)
HUMA 210	Women in Religion and Myth (M)		
ITAL 102	Second Course in Italian (C,M)		
ITAL 201	Third Course in Italian (C,M)		
JAPN 102	Second Course in Japanese (M)		
JAPN 201	Third Course in Japanese (M)		

Area 4—Social and Behavioral Sciences

3 courses, 9 semester/12–15 quarter units

Courses from at least two disciplines or an interdisciplinary sequence.

4: Social and Behavioral Sciences

AAPI 124	Introduction to Asian American and Pacific Islander Studies (C,M,MMR)	+ CHIC 141B	United States History From a Chicano Perspective (C,M,MMR)
ADJU 101	Introduction to Administration of Justice (C,MMR)	CHIC 150	History of Mexico (C,M)
ADJU 230	Constitutional Law I (MMR)	CHIC 155	Introduction to Central American Studies (M)
AGRI 100	Principles of Sustainable Agriculture (C)	CHIC 170	La Chicana (C,M,MMR)
* AMSL 150	Introduction to Deaf Culture (M)	CHIC 201	The Indigenous Tradition of Mexico and Ancient Mesoamerica (C,M)
ANTH 103	Introduction to Cultural Anthropology (C,M,MMR)	* CHIC 210	Chicano Culture (C,M)
ANTH 106	World Prehistory (C,M)	+ CHIL 101	Human Growth and Development (C,M,MMR)
ANTH 107	Introduction to Archaeology (C,M,MMR)	+ CHIL 103	Lifespan Growth and Development (MMR)
ANTH 110	Anthropology of Magic, Witchcraft, and Religion (C,M)	* COMS 135	Interpersonal Communication (C,M,MMR)
ANTH 117	Anthropology of Gender and Sexuality (M)	COMS 201	Communication and Community (C,MMR)
ANTH 140	Primatology (C,M)	CRES 101	Conflict Resolution and Mediation (C)
ANTH 200	Introduction to North American Indians (M)	ECON 120	Principles of Macroeconomics (C,M,MMR)
ANTH 210	Introduction to the Indigenous People of California (C,M)	ECON 121	Principles of Microeconomics (C,M,MMR)
ANTH 215	Cultures of Latin America (C,M)	ECON 220	Economics of the Environment (C,M)
* ARTF 108	Women in Art (M)	ENGL 202	Introduction to Linguistics (C,M)
* BLAS 100	Introduction to Black Studies (C,M,MMR)	* FILI 100	Filipino American Experience (MMR)
+ BLAS 104	Black Psychology (C,M,MMR)	FJMP 101	Introduction to Mass Media (C)
+ BLAS 115	Sociology from a Black Perspective (C)	GEND 101	Introduction to Gender Studies (C,MMR)
BLAS 116	Contemporary Social Problems From a Black Perspective (C,M)	GEOG 102	Cultural Geography (C,M,MMR)
BLAS 125	Dynamics of the Black Community (M)	GEOG 104	World Regional Geography (C,M,MMR)
BLAS 130	The Black Family (C,M)	GEOG 154	Introduction to Urban Geography (C,M)
BLAS 135	Introduction to Black Politics (C)	* HEAL 103	Introduction to Public Health (C,M)
+ BLAS 140A	African American History to Reconstruction (C,M,MMR)	HEAL 104	Public Health and Social Justice (M)
+ BLAS 140B	African American History since Reconstruction to the Present (C,M,MMR)	* HIST 100	World History I (C,M,MMR)
* BLAS 145A	Introduction to African History (C,M)	* HIST 101	World History II (C,M,MMR)
* BLAS 145B	Introduction to African History (C,M)	* HIST 105	Introduction to Western Civilization I (C,M,MMR)
BLAS 175	Psycho-History of Racism and Sexism (M)	* HIST 106	Introduction to Western Civilization II (C,M,MMR)
* CHIC 110A	Introduction to Chicana and Chicano Studies (C,M,MMR)	+ HIST 109	History of the United States I (C,M,MMR)
* CHIC 110B	Introduction to Chicano Studies (C,M)	+ HIST 110	History of the United States II (C,M,MMR)
CHIC 140	Chicana/o Sociology (C,M)	HIST 115A	History of the Americas I (C,M,MMR)
+ CHIC 141A	United States History From a Chicano Perspective (C,M,MMR)	HIST 115B	History of the Americas II (C,M,MMR)
		* HIST 120	Introduction to Asian Civilizations (C,M,MMR)
		* HIST 121	Asian Civilizations in Modern Times (C,M,MMR)
		HIST 123	U.S. History from the Asian Pacific American Perspective (C,M,MMR)

HIST 130	The Modern Middle East (M)	PSYC 211	Learning (C,M,MMR)
* HIST 131	Latin America Before Independence (M)	PSYC 230	Psychology of Lifespan Development (C,M,MMR)
* HIST 132	Latin America Since Independence (M)	PSYC 245	Abnormal Psychology (C,M,MMR)
HIST 135	History of Technology (M)	PSYC 283	Introduction to Cognitive Psychology (C,M,MMR)
+ HIST 141	Women in United States History I (M,MMR)	RTVF 101	Media Law and Ethics (C)
+ HIST 142	Women in United States History II (M,MMR)	+ SOCO 101	Principles of Sociology (C,M,MMR)
+ HIST 150	Native Americans in United States History I (M)	SOCO 110	Contemporary Social Problems (C,M,MMR)
+ HIST 151	Native Americans in United States History II (M)	SOCO 125	Sociology of the Family (C,M)
HIST 154	Ancient Egypt (M)	SOCO 145	Health and Society (C,M,MMR)
HIST 175	California History (M)	SOCO 150	Sociology of Latinos/Latinas (C,M)
JOUR 202	Introduction to Mass Communication (C,M,MMR)	SOCO 201	Advanced Principles of Sociology (C,M,MMR)
LABR 100	American Labor Movement (C)	SOCO 207	Introduction to Race and Ethnicity (C,M,MMR)
NUTR 153	Cultural Foods (C,M,MMR)	SOCO 220	Introduction to Research Methods in Sociology (C,M,MMR)
PADM 110	Introduction to Law and Society (C,M)	SOCO 223	Globalization and Social Change (C,M,MMR)
PADM 200	Introduction to Public Administration (C,MMR)	SPAN 222	Hispanic Culture and Civilization for Spanish Speakers (M)
PEAC 101	Introduction to Peace Studies (C)	SUST 101	Introduction to Sustainability (C,M,MMR)
PHIL 109	Issues in Social Philosophy (M)	WNNS 101	Introduction to Gender and Women's Studies (M)
* PHIL 126	Introduction to Philosophy of Contemporary Gender Issues (C,M)		
POLI 101	Introduction to Political Science (C,M,MMR)		
POLI 102	Introduction to American Government (C,M,MMR)		
POLI 103	Comparative Politics (C,M,MMR)		
POLI 121	American Political Development (C,M,MMR)		
POLI 123	Gender and Politics (M)		
POLI 124	Power and Justice: An Introduction to Political Theory (C,M)		
POLI 140	Contemporary International Politics (C,M,MMR)		
+ PSYC 101	General Psychology (C,M,MMR)		
PSYC 111	Psychological/Social Aspects of Aging, Death and Dying (C,M)		
+ PSYC 121	Introduction to Child Psychology (M)		
+ PSYC 123	Adolescent Psychology (C,MMR)		
PSYC 133	Psychology of Women (M,MMR)		
PSYC 135	Marriage and Family Relations (C,M,MMR)		
+ PSYC 137	Human Sexual Behavior (C,M,MMR)		
PSYC 155	Introduction to Personality (C,M,MMR)		
PSYC 166	Introduction to Social Psychology (C,M,MMR)		

Area 5—Physical and Biological Sciences

At least 2 courses required, 7–9 semester/9–12 quarter units.

One Physical Science course and one Biological Science course; at least one must include a laboratory.

- One course in 5A (underlined courses include a lab component)
- One course in 5B (underlined courses include a lab component)
- One of the courses selected to fulfill the requirement for 5A or 5B must include a laboratory component or a separate course must be taken from 5C. If a separate laboratory course is taken from 5C, it must match one of the two lecture courses taken from 5A or 5B.

5A: Physical Science Courses

AGRI 125 Introduction to Soil Science (C)

ASTR 101	Descriptive Astronomy (C,M,MMR)	ANTH 102	Introduction to Biological Anthropology (C,M,MMR)
+ ASTR 102	Exploring The Solar System and Life Beyond The Earth (C,M,MMR)	+ BIOL 100	Natural History Environmental Biology (M,MMR)
AVIA 115	Aviation Weather (MMR)	BIOL 101	Issues in Environmental Science & Sustainability (C,MMR)
+ CHEM 100	Fundamentals of Chemistry (C,M,MMR)	+ BIOL 107	General Biology - Lecture and Lab (C,M,MMR)
<u>CHEM 103</u>	General, Organic, and Biological Chemistry (M,MMR)	BIOL 110	Introduction to Oceanography (M)
CHEM 111	Chemistry in Society (C,M,MMR)	BIOL 115	Marine Biology (M,MMR)
+ CHEM 130	Introduction to Organic & Biological Chemistry (C,M,MMR)	+ BIOL 120	The Environment of Man (M)
+ CHEM 152	Introduction to General Chemistry (C,M,MMR)	BIOL 130	Human Heredity (C,M,MMR)
CHEM 160	Introductory Biochemistry (M,MMR)	<u>BIOL 131</u>	Introduction to Biotechnology (MMR)
CHEM 200	General Chemistry I - Lecture (C,M,MMR)	+ BIOL 180	Plants and People (C,M,MMR)
CHEM 201	General Chemistry II - Lecture (C,M,MMR)	<u>BIOL 205</u>	General Microbiology (C,M,MMR)
+ CHEM 231	Organic Chemistry I - Lecture (C,M,MMR)	<u>BIOL 210A</u>	Introduction to the Biological Sciences I (C,M,MMR)
CHEM 233	Organic Chemistry II - Lecture (C,M,MMR)	<u>BIOL 210B</u>	Introduction to the Biological Sciences II (C,M,MMR)
<u>CHEM 251</u>	Quantitative Analytical Chemistry (C,M,MMR)	+ BIOL 215	Introduction to Zoology (M)
GEOG 101	Physical Geography (C,M,MMR)	<u>BIOL 230</u>	Human Anatomy (C,M,MMR)
GEOL 100	Physical Geology (C,M,MMR)	<u>BIOL 235</u>	Human Physiology (C,M,MMR)
GEOL 104	Earth Science (C,M,MMR)	+ BIOL 250	Introduction to Botany (M)
<u>GEOL 111</u>	Dinosaurs, Mass Extinctions, and Earth History (C,M,MMR)	PSYC 260	Introduction to Physiological Psychology (C,M,MMR)
<u>GEOL 130</u>	Field Geology of San Diego County (C,M,MMR)		
OCEA 101	The Oceans (M,MMR)		
+ PHYN 100	Survey of Physical Science (C,M,MMR)		
PHYN 105	Physical Science for Elementary Education (M)		
PHYN 114	Weather and Climate (C,M,MMR)		
+ <u>PHYS 100</u>	Introductory Physics (C,M)		
+ <u>PHYS 125</u>	General Physics (C,M,MMR)		
+ <u>PHYS 126</u>	General Physics II (C,M,MMR)		
+ PHYS 180A	General Physics I (C,M,MMR)		
+ PHYS 180B	General Physics II (C,M,MMR)		
+ <u>PHYS 195</u>	Mechanics (C,M,MMR)		
+ <u>PHYS 196</u>	Electricity and Magnetism (C,M,MMR)		
+ <u>PHYS 197</u>	Waves, Optics and Modern Physics (C,M,MMR)		

5B: Biological Science Courses

AGRI 107 Introduction to Agricultural Plant Science (C)

5C: Science Laboratory

ANTH 104	Laboratory in Biological Anthropology (C,M,MMR)
+ ASTR 109	Practice in Observing Lab (C,M,MMR)
+ ASTR 111	Astronomy Lab (C,M,MMR)
+ CHEM 100L	Fundamentals of Chemistry Lab (C,M,MMR)
+ CHEM 111L	Chemistry in Society Laboratory (C,M)
+ CHEM 130L	Introduction to Organic & Biological Chemistry Lab (C,M,MMR)
+ CHEM 152L	Introduction to General Chemistry Lab (C,M,MMR)
CHEM 200L	General Chemistry I - Lab (C,M,MMR)
CHEM 201L	General Chemistry II - Lab (C,M,MMR)
+ CHEM 231L	Organic Chemistry I - Lab (C,M,MMR)
CHEM 233L	Organic Chemistry II - Lab (C,M,MMR)
GEOG 101L	Physical Geography Lab (C,M,MMR)
GEOL 101	Physical Geology Lab (C,M,MMR)
GEOL 120	Earth Science Laboratory (C,M)
+ PHYN 101	Survey of Physical Science Lab (C,M)
+ PHYS 181A	General Physics Lab I (C,M,MMR)

+ PHYS 181B General Physics Lab II (C,M,MMR)

Area 6—Languages other than English

UC Requirement Only. In order to complete IGETC for the University of California system, students are required to demonstrate competence/proficiency in a language other than English equal to two years of high school study. Competence may be demonstrated through the following mechanisms:

1. In a high school where the language of instruction is English, completion of the second level of high school coursework in a language other than English with a letter grade of "C-" or better in the second semester of the second year.
2. Completion of a course or courses at a college or university, with a grade of "C" or better in each course. Usually, one semester of college work in a language other than English is equivalent to two years of high school work.

Any one of the following course or courses completed with a grade of "C" or better, will fulfill the requirement.

6A: Languages Other Than English

AMSL 120	American Sign Language Level I (C,M,MMR)
AMSL 121	American Sign Language Level II (C,M,MMR)
AMSL 220	American Sign Language Level III (C,M)
AMSL 221	American Sign Language Level IV (C,M)
ARAB 101	First Course in Arabic (C)
ARAB 102	Second Course in Arabic (C)
ARAB 201A	Third Course in Arabic (C)
CHIN 101	First Course in Mandarin Chinese (M)
CHIN 102	Second Course in Mandarin Chinese (M)
CHIN 201	Third Course in Mandarin Chinese (M)
CHIN 202	Fourth Course in Mandarin Chinese (M)
FREN 101	First Course in French (C,M)
FREN 102	Second Course in French (C,M)
FREN 201	Third Course in French (C,M)
FREN 202	Fourth Course in French (C,M)
GERM 101	First Course in German (C,M)
GERM 102	Second Course in German (C,M)
GERM 201	Third Course in German (C,M)

ITAL 101	First Course in Italian (C,M)
ITAL 102	Second Course in Italian (C,M)
ITAL 201	Third Course in Italian (C,M)
JAPN 101	First Course in Japanese (M)
JAPN 102	Second Course in Japanese (M)
JAPN 201	Third Course in Japanese (M)
JAPN 202	Fourth Course in Japanese (M)
RUSS 101	First Course in Russian (C,M)
RUSS 102	Second Course in Russian (C,M)
RUSS 201	Third Course in Russian (M)
+ SPAN 101	First Course in Spanish (C,M,MMR)
+ SPAN 102	Second Course in Spanish (C,M,MMR)
+ SPAN 201	Third Course in Spanish (C,M,MMR)
+ SPAN 202	Fourth Course in Spanish (C,M,MMR)
SPAN 215	Spanish for Spanish Speakers I (C,M)
SPAN 216	Spanish for Spanish Speakers II (C,M)
TAGA 101	First Course in Tagalog (MMR)
TAGA 102	Second Course in Tagalog (MMR)
TAGA 201	Third Course in Tagalog (MMR)
VIET 101	First Course in Vietnamese (M)
VIET 102	Second Course in Vietnamese (M)
VIET 201	Third Course in Vietnamese (M)

Area 7—Ethnic Studies

Three Semester Units (4 quarter units).

7: Ethnic Studies

* BLAS 100	Introduction to Black Studies (C,M,MMR)
* CHIC 110A	Introduction to Chicana and Chicano Studies (C,M,MMR)
* CHIC 110B	Introduction to Chicana and Chicano Studies (C,M)
* FILI 100	Filipino American Experience (MMR)

3. Achieve a satisfactory score on the SAT Subject Test in languages other than English, as listed below. If the test was taken before May 1995, the first score is the minimum; if the test was taken after May 1995, the second score is the minimum: Chinese with listening: 500/520, French/French With Listening: 500/540, German/German With Listening: 500/510, Hebrew (Modern): 500/470, Italian: 500/520, Japanese With Listening: 500/510, Korean/Korean With Listening: not

offered before 1995/500, Latin: 500/530, Spanish/
Spanish With Listening: 500/520

4. Achieve a score of 3, 4 or 5 on a College Board Advanced Placement (AP) Examination in a language other than English.
5. Achieve a score of 5 or higher on an International Baccalaureate (IB) Higher Level Examination in a language other than English.
6. Satisfactory completion of an achievement test administered by a community college, university, or other college in a language other than English. The test will have to assess the student's proficiency at the level equivalent to two years of high school language. This conclusion must be posted on a transcript indicating units, course title and grade or on official college letterhead of the institution granting proficiency stating that the student has mastered proficiency in the language equivalent to two years of high school language. The San Diego Community College District does not administer this test.
7. In an institution where the language of instruction is not English, formal schooling through the sixth grade level or higher. Appropriate documentation must be presented to substantiate the language of instruction. If an official sealed transcript cannot be obtained from an international institution, an unofficial or opened transcript may be used, as appropriate.
8. Earn a passing grade on the international A level or O level exam in a language other than English.
9. If an appropriate achievement test is not available to assert proficiency, have competency verified by a faculty member associated with a California community college. Such verification requires that the college provide a document on letterhead asserting that the student's proficiency in the language is equivalent to two years of high school study. See a counselor for more information. Only students who have no other means to verify foreign language proficiency may pursue this option. Students must petition for faculty member verification through the College Evaluations Office.

Completion of courses above proficiency level, with grades of "C" or better, may also be used to meet the requirement. Special Topics and Civilization courses DO NOT meet this requirement. See a Counselor.

California State University General Education Breadth (CSUGE-B)

About the CSUGE-Breadth Pattern

The California State University General Education-Breadth (CSUGE-B) pattern is one option that allows California community college transfer students to fulfill the lower-division general education requirements of any California State University (CSU) campus. The curriculum consists of a 39-unit pattern with six areas of concentration.

It is strongly recommended that students consult with a counselor to determine which general education pattern is most appropriate for their individual educational goals.

Certification of CSUGE-Breadth Requirements

Official notification from a California community college that a transfer student has completed courses fulfilling lower-division general education requirements occurs through a process of "certification". Certification is a legal agreement between the CSU and California Community Colleges.

It is the policy of the San Diego Community College District to provide certification of general education breadth requirements when such service is requested by the student. Certification of general education courses is generally requested when the CSUGE-B pattern has been completed.

Additional CSUGE-Breadth Information and Restrictions

- Completion of the CSUGE-B pattern is not an admission requirement nor does completion guarantee admission to any CSU campus or program.
- Certification is based on approved courses listed in the CSUGE-B pattern that are completed in the San Diego Community College District or from other regionally accredited institutions.
- Courses completed at a foreign college or university cannot be used to satisfy CSUGE-B general education requirements.
- Students pursuing an Associate Degree for Transfer in Biology are eligible to take CSUGE-Breadth for STEM, deferring two lower-division GE courses until after transfer. CSUGE-Breadth for STEM is applicable only to Biology majors in

which the Transfer Model Curriculum explicitly indicates the availability of the option. Students using CSUGE-Breadth for STEM must complete:

- All courses in Areas A, B, E, and F of the traditional CSU GE Breadth Curriculum;
 - One course in Area C1 Arts and one course in Area C2 Humanities; and
 - One course in Area D.
- Catalog rights do not apply to the CSUGE-B pattern.
 - Prior to certification, students must complete a minimum of 3 units of general education within the CSUGE-B pattern or 12 units in residence at the San Diego Community College District.
 - Official transcripts from all colleges and universities attended must be on file before submitting an application for certification. The application is available in the Evaluations Office and/or Counseling Office.
 - The CSUGE-B pattern is accepted by some California private and independent colleges and universities in satisfying lower division general education requirements.

For additional information, consult a counselor.

The CSUGE-Breadth Pattern (Option 2)

The following information is based on the 2024–2025 agreement and is distributed as follows:

- Colleges in parenthesis indicate where the course is approved for CSUGE-B Requirements.
C—City College
M—Mesa College
MMR—Miramar College
- Courses with asterisks are listed in more than one area but shall not be certified in more than one area.
- Courses with the number sign are listed more than once in the same area, but will only be used for certification once.

Please note: Courses required in Oral Communication (Area A1), Written Communication (Area A2), Critical Thinking (Area A3), and Mathematics and Quantitative Reasoning (Area B4) must be completed with grades of “C” or better for admission to most

CSU campuses and CSUGE-Breadth Certification.
For additional information, consult a counselor.

Area A. English Language Communication and Critical Thinking:

No fewer than nine semester units (12–15 quarter units) including one course in A1, one course in A2, and one course in A3.

A1: Oral Communication

COMS 103	Oral Communication (C,M,MMR)
* COMS 135	Interpersonal Communication (C,M,MMR)
COMS 170	Small Group Communication (C,M,MMR)

A2: Written Communication

ENGL 101	Reading and Composition (C,M,MMR)
ENGL 105	Composition and Literature (C,M,MMR)

A3: Critical Thinking

COMS 160	Argumentation and Critical Thinking (C,M,MMR)
ENGL 205	Critical Thinking and Intermediate Composition (C,M,MMR)
HIST 205	Methodology and Practice in History (M)
PHIL 100	Logic and Critical Thinking (C,M,MMR)
* PHIL 103	Historical Introduction to Philosophy (M)
PHIL 205	Critical Thinking and Writing in Philosophy (C,M,MMR)

Area B. Scientific Inquiry and Quantitative Reasoning:

No fewer than nine semester units (12–15 quarter units) Including:

- One course in B1 (underlined courses include a lab component)
- One course in B2 (underlined courses include a lab component)
- One of the courses selected to fulfill the requirement for B1 or B2 must include a laboratory component or a separate course

must be taken from B3. If a separate laboratory course is taken from B3, it must match one of the two lecture courses taken from B1 or B2.

- One course in B4

B1: Physical Science

<u>AGRI 125</u>	Introduction to Soil Science (C)
ASTR 101	Descriptive Astronomy (C,M,MMR)
ASTR 102	Exploring The Solar System and Life Beyond The Earth (C,M,MMR)
AVIA 115	Aviation Weather (MMR)
CHEM 100	Fundamentals of Chemistry (C,M,MMR)
<u>CHEM 103</u>	General, Organic, and Biological Chemistry (M,MMR)
CHEM 111	Chemistry in Society (C,M,MMR)
CHEM 130	Introduction to Organic & Biological Chemistry (C,M,MMR)
CHEM 152	Introduction to General Chemistry (C,M,MMR)
CHEM 160	Introductory Biochemistry (M,MMR)
CHEM 200	General Chemistry I - Lecture (C,M,MMR)
CHEM 201	General Chemistry II - Lecture (C,M,MMR)
CHEM 231	Organic Chemistry I - Lecture (C,M,MMR)
CHEM 233	Organic Chemistry II - Lecture (C,M,MMR)
<u>CHEM 251</u>	Quantitative Analytical Chemistry (C,M,MMR)
GEOG 101	Physical Geography (C,M,MMR)
GEOL 100	Physical Geology (C,M,MMR)
<u>GEOL 111</u>	Dinosaurs, Mass Extinctions, and Earth History (C,M,MMR)
GEOL 104	Earth Science (C,M,MMR)
<u>GEOL 130</u>	Field Geology of San Diego County (C,M,MMR)
OCEA 101	The Oceans (M,MMR)
PHYN 100	Survey of Physical Science (C,M,MMR)
PHYN 105	Physical Science for Elementary Education (M)
PHYN 114	Weather and Climate (C,M,MMR)
<u>PHYS 100</u>	Introductory Physics (C,M)
<u>PHYS 125</u>	General Physics (C,M,MMR)
<u>PHYS 126</u>	General Physics II (C,M,MMR)
PHYS 180A	General Physics I (C,M,MMR)
PHYS 180B	General Physics II (C,M,MMR)
<u>PHYS 195</u>	Mechanics (C,M,MMR)

<u>PHYS 196</u>	Electricity and Magnetism (C,M,MMR)
<u>PHYS 197</u>	Waves, Light and Modern Physics (C,M,MMR)

B2: Life Science

<u>AGRI 107</u>	Introduction to Agricultural Plant Science (C)
ANTH 102	Introduction to Biological Anthropology (C,M,MMR)
<u>BIOL 100</u>	Natural History-Environmental Biology (M,MMR)
<u>BIOL 101</u>	Issues in Environmental Science & Sustainability (C,MMR)
<u>BIOL 107</u>	General Biology - Lecture and Laboratory (C,M,MMR)
BIOL 110	Introduction to Oceanography (C,M)
BIOL 111	Cancer Biology (C)
<u>BIOL 115</u>	Marine Biology (C,M,MMR)
BIOL 130	Human Heredity (C,M,MMR)
<u>BIOL 131</u>	Introduction to Biotechnology (MMR)
<u>BIOL 160</u>	Elements of Human Anatomy & Physiology (M,MMR)
BIOL 180	Plants and People (C,M,MMR)
<u>BIOL 205</u>	General Microbiology (C,M,MMR)
<u>BIOL 210A</u>	Introduction to the Biological Sciences I (C,M,MMR)
<u>BIOL 210B</u>	Introduction to the Biological Sciences II (C,M,MMR)
<u>BIOL 215</u>	Introduction to Zoology (M)
<u>BIOL 230</u>	Human Anatomy (C,M,MMR)
<u>BIOL 235</u>	Human Physiology (C,M,MMR)
<u>BIOL 250</u>	Introduction to Botany (M)
PSYC 260	Introduction to Physiological Psychology (C,M,MMR)

B3: Laboratory Activity

ANTH 104	Laboratory in Biological Anthropology (C,M,MMR)
ASTR 109	Practice in Observing (C,M,MMR)
ASTR 111	Astronomy Laboratory (C,M,MMR)
CHEM 100L	Fundamentals of Chemistry Laboratory (C,M,MMR)
CHEM 111L	Chemistry in Society Laboratory (C,M)
CHEM 130L	Introduction to Organic & Biological Chemistry Laboratory (C,M,MMR)
CHEM 152L	Introduction to General Chemistry Laboratory (C,M,MMR)

CHEM 200L	General Chemistry I - Laboratory (C,M,MMR)	MATH 210B	Concepts of Elementary School Mathematics II (C,M)
CHEM 201L	General Chemistry II - Laboratory (C,M,MMR)	MATH 245	Discrete Mathematics (C,M,MMR)
CHEM 231L	Organic Chemistry I - Laboratory (C,M,MMR)	MATH 252	Calculus with Analytic Geometry III (C,M,MMR)
CHEM 233L	Organic Chemistry II - Laboratory (C,M,MMR)	MATH 254	Introduction to Linear Algebra (C,M,MMR)
GEOG 101L	Physical Geography Laboratory (C,M,MMR)	MATH 255	Differential Equations (C,M,MMR)
GEOL 101	Physical Geology Laboratory (C,M,MMR)	POLI 201	Elementary Statistics for Political Science (C,M)
GEOL 120	Earth Science Laboratory (C,M)	PSYC 258	Behavioral Science Statistics (C,M,MMR)
PHYN 101	Survey of Physical Science Laboratory (C,M)		
PHYS 181A	General Physics Lab I (C,M,MMR)		
PHYS 181B	General Physics Lab II (C,M,MMR)		

B4: Mathematics/Quantitative Reasoning

BIOL 200	Biological Statistics (M,MMR)
BUSE 101	Business Mathematics (C,M,MMR)
BUSE 115	Statistics for Business (C,M,MMR)
CISC 246	Discrete Mathematics for Computer Science (M,MMR)
HEIT 256	Statistics for Healthcare (M)
MATH 104	Trigonometry (C,M,MMR)
MATH 107	Introduction to Scientific Programming (C)
MATH 107L	Introduction to Scientific Programming Laboratory (C)
MATH 109	Explorations in Mathematical Analysis (C)
MATH 115	Gateway to Experimental Statistics (C)
MATH 116	College and Matrix Algebra (C,M,MMR)
MATH 118	A Survey of Modern Mathematics (C,M,MMR)
MATH 119	Elementary Statistics (C,M,MMR)
MATH 121	Basic Techniques of Applied Calculus I (C,M,MMR)
MATH 122	Basic Techniques of Calculus II (C,M,MMR)
MATH 141	Precalculus (C,M,MMR)
MATH 150	Calculus with Analytic Geometry I (C,M,MMR)
MATH 151	Calculus with Analytic Geometry II (C,M,MMR)
MATH 210A	Concepts of Elementary School Mathematics I (C,M)

Area C. Arts and Humanities:

Nine semester units (12–15 quarter units) with at least one course each in Arts and Humanities.

C1: Arts (Art, Cinema, Dance, Music, Theater)

ARTF 100	Art Orientation (C,M,MMR)
ARTF 106	Art of the United States: Colonial to Modern Period (M)
ARTF 107	Contemporary Art (M,MMR)
ARTF 108	Women in Art (M)
ARTF 109	Modern Art (C,M,MMR)
ARTF 110	Art History: Prehistoric to Gothic (C,M,MMR)
ARTF 111	Art History: Renaissance to Modern (C,M,MMR)
ARTF 113	Arts of Africa, Oceania, and the Americas (M,MMR)
ARTF 115	African Art (C,M)
ARTF 120	Native American Art (M)
ARTF 125	Art History: Arts of the Asian Continent (C,M,MMR)
ARTF 130	Pre-Columbian Art (M)
* ARTF 188	Women and Gender in Photography (M)
ARTF 191	Cultural Influences on Photography (M)
ARTF 194	Critical Photography (M)
ARTF 212	Sustainable Art and Design (C)
BLAS 110	African American Art (C,M)
BLAS 111	Cultural Influences on African Art (M)
BLAS 120	Black Music (C,M)
CHIC 230	Chicano Art (C,M)
CHIC 250	Introduction to Chicana/o Dramatic Art (C,M)
DANC 181	History of Dance (C,M)

DFLM 101	Introduction to Film (MMR)	ARAB 101	First Course in Arabic (C)
DFLM 102	The American Cinema (MMR)	ARAB 102	Second Course in Arabic (C)
DRAM 105	Introduction to Dramatic Arts (C,M)	ARAB 201A	Third Course in Arabic (C)
DRAM 107	Study of Filmed Plays (C)	ARCH 126	History of Ancient World Architecture (M)
DRAM 109	Theatre and Social Issues (C,M)	ARCH 127	History of World Architecture: Renaissance Through Contemporary (M)
DRAM 111	Chicana/o Theatre (C)	ARTF 108	Women in Art (M)
DRAM 136	Theatre History I: Ancient Greece to the Renaissance (C)	* ARTF 188	Women and Gender in Photography (M)
DRAM 137	Theatre History II: Restoration to the Present (C)	ARTF 191	Cultural Influences on Photography (M)
DRAM 150	Cinema as Art and Communication I (M)	* BLAS 145A	Introduction to African History (C,M)
DRAM 151	Cinema as Art and Communication II (M)	* BLAS 145B	Introduction to African History (C,M)
DRAM 205	The American Musical on Stage and Screen (C)	BLAS 150	Black Women in Literature, Film and the Media (C,M,MMR)
DSGN 104	Graphic Design History (C)	BLAS 155	African American Literature (C,M,MMR)
FASH 120	Fashion History and Trends (M)	CHIC 130	Mexican Literature in Translation (C,M)
FASH 122	Ethnic Costume (M)	CHIC 135	Chicana/o Literature (C,M,MMR)
FJMP 100	Introduction to Cinema (C)	CHIC 138	Literature of La Raza in Latin America in Translation (C,M)
INTE 125	History of Furniture and Interiors (M)	CHIC 190	Chicano Images in Film (C,M)
MUSI 100	Introduction to Music (C,M,MMR)	CHIC 210	Chicano Culture (C,M)
MUSI 103	History of Rock Music (C,M,MMR)	CHIN 101	First Course in Mandarin Chinese (M)
MUSI 109	World Music (C,M,MMR)	CHIN 102	Second Course in Mandarin Chinese (M)
MUSI 111	Jazz History (C,M,MMR)	CHIN 201	Third Course in Mandarin Chinese (M)
MUSI 114	Music of The Beatles (M)	CHIN 202	Fourth Course in Mandarin Chinese (M)
MUSI 117	Music in the United States (M)	ENGL 208	Introduction to Literature (C,M,MMR)
MUSI 118	Asian & Pacific Music (M)	ENGL 209	Literary Approaches to Film (C,M,MMR)
MUSI 119	Music in Latin America & North America (M)	ENGL 210	American Literature I (C,M,MMR)
MUSI 125	Music, the Arts, and Society (M)	ENGL 211	American Literature II (C,M,MMR)
MUSI 126	Rap Music and Hip Hop Culture (M)	ENGL 215	English Literature I: 800–1799 (C,M,MMR)
MUSI 131	Music of California (M)	ENGL 216	English Literature II: 1800–Present (C,M,MMR)
MUSI 138	Women in Music (M)	ENGL 220	Masterpieces of World Literature I: 1500 BCE–1600 CE (C,M,MMR)
PHOT 150	History of Photography (C)	ENGL 221	Masterpieces of World Literature II: 1600–Present (C,M,MMR)
RTVF 162	Women in Film (C)	ENGL 230	Asian American Literature (M,MMR)
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C2: Humanities (Literature, Philosophy, Languages Other than English)			
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AMSL 120	American Sign Language Level I (C,M,MMR)	ENGL 234	Hip Hop Literature: A Poetry Class (C,M,MMR)
AMSL 121	American Sign Language Level II (C,M,MMR)	ENGL 237	Women in Literature (C,M,MMR)
* AMSL 150	Introduction to Deaf Culture (C,M)	ENGL 238	Evaluating Children's Literature (C)
AMSL 220	American Sign Language Level III (C,M)	ENGL 240	Shakespeare (C,M)
AMSL 221	American Sign Language Level IV (C,M)		

FREN 101	First Course in French (C,M)	* PHIL 103	Historical Introduction to Philosophy (M)
FREN 102	Second Course in French (C,M)	PHIL 104A	History Of Western Philosophy: Ancient to Medieval (C,M,MMR)
FREN 201	Third Course in French (C,M)	PHIL 104B	History of Western Philosophy: Modern to Contemporary (C,M)
FREN 202	Fourth Course in French (C,M)	PHIL 105	Contemporary Philosophy (C,M)
GERM 101	First Course in German (C,M)	PHIL 106	Asian Philosophy (C,M)
GERM 102	Second Course in German (C,M)	PHIL 107	Reflections on Human Nature (C,M,MMR)
GERM 201	Third Course in German (C,M)	PHIL 108	Perspectives on Human Nature and Society (C,M)
* HIST 100	World History I (C,M,MMR)	PHIL 110	Philosophy of Religion (M)
* HIST 101	World History II (C,M,MMR)	PHIL 111	Philosophy In Literature and Other Fiction (C,M)
* HIST 105	Introduction to Western Civilization I (C,M,MMR)	PHIL 112	Philosophy of Science (M)
* HIST 106	Introduction to Western Civilization II (C,M,MMR)	PHIL 125	Philosophy of Women (C,M)
* HIST 120	Introduction to Asian Civilizations (C,M,MMR)	* PHIL 126	Introduction to Philosophy of Contemporary Gender Issues (C,M)
* HIST 121	Asian Civilizations in Modern Times (C,M,MMR)	PHIL 130	Philosophy of Art and Music (C,M)
* HIST 131	Latin America Before Independence (M)	PHIL 131	Environmental Ethics (C,M,MMR)
* HIST 132	Latin America Since Independence (M)	RUSS 101	First Course in Russian (C,M)
* HIST 154	Ancient Egypt (M)	RUSS 102	Second Course in Russian (C,M)
* HUMA 101	Introduction to the Humanities I (C,M,MMR)	RUSS 201	Third Course in Russian (M)
HUMA 102	Introduction to the Humanities II (C,M,MMR)	SPAN 101	First Course in Spanish (C,M,MMR)
HUMA 103	Introduction to the New Testament (C,M)	SPAN 102	Second Course in Spanish (C,M,MMR)
HUMA 104	Introduction to the Old Testament (M)	SPAN 201	Third Course in Spanish (C,M,MMR)
HUMA 106	World Religions (C,M,MMR)	SPAN 202	Fourth Course in Spanish (C,M,MMR)
HUMA 118	Eastern Humanities (M)	SPAN 215	Spanish for Spanish Speakers I (C,M)
HUMA 119	Western Humanities (M)	SPAN 216	Spanish for Spanish Speakers II (C,M)
HUMA 201	Mythology (C,M,MMR)	SPAN 221	Hispanic Literature for Spanish Speakers (M)
HUMA 202	Mythology: Hero's Journey (C)	SPAN 222	Hispanic Culture and Civilization for Spanish Speakers (M)
HUMA 205	Exploring Human Values through Film (M)	TAGA 101	First Course in Tagalog (MMR)
HUMA 210	Women in Religion and Myth (M)	TAGA 102	Second Course in Tagalog (MMR)
ITAL 101	First Course in Italian (C,M)	TAGA 201	Third Course in Tagalog (MMR)
ITAL 102	Second Course in Italian (C,M)	VIET 101	First Course in Vietnamese (M)
ITAL 201	Third Course in Italian (C,M)	VIET 102	Second Course in Vietnamese (M)
JAPN 101	First Course in Japanese (M)	VIET 201	Third Course in Vietnamese (M)
JAPN 102	Second Course in Japanese (M)		
JAPN 201	Third Course in Japanese (M)		
JAPN 202	Fourth Course in Japanese (M)		
PHIL 102A	Introduction to Philosophy: Reality and Knowledge (C,M,MMR)		
PHIL 102B	Introduction to Philosophy: Values (C,M,MMR)		

Area D. Social Sciences:

Six Semester units (8 quarter units).

AAPI 124	Introduction to Asian American and Pacific Islander (C,M,MMR)
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ADJU 101	Introduction to Administration of Justice (C,MMR)	CHIC 141B	United States History from a Chicano Perspective (C,M,MMR)
ADJU 106	Diversity and Community Relations (MMR)	CHIC 150	History of Mexico (C,M)
ADJU 230	Constitutional Law I (MMR)	CHIC 155	Introduction to Central American Studies (M)
AGRI 100	Principles of Sustainable Agriculture (C)	CHIC 170	La Chicana (C,M,MMR)
* AMSL 150	Introduction to Deaf Culture (C,M)	CHIC 201	The Indigenous Tradition of Mexico and Ancient Mesoamerica (C,M)
ANTH 103	Introduction to Cultural Anthropology (C,M,MMR)	CHIC 210	Chicano Culture (C,M)
ANTH 106	World Prehistory (C,M)	* CHIL 101	Human Growth and Development (C,M,MMR)
ANTH 107	Introduction to Archaeology (C,M,MMR)	* CHIL 103	Lifespan Growth and Development (MMR)
ANTH 110	Anthropology of Magic, Witchcraft, and Religion (C,M)	CHIL 141	The Child, Family and Community (C,M,MMR)
ANTH 117	Anthropology of Gender and Sexuality (M)	* COMS 135	Interpersonal Communication (C,M,MMR)
ANTH 140	Primatology (C,M)	COMS 201	Communication and Community (C,MMR)
ANTH 200	Introduction to North American Indians (M)	CRES 101	Conflict Resolution and Mediation (C)
ANTH 205	Introduction to Medical Anthropology (M)	ECON 120	Principles of Macroeconomics (C,M,MMR)
ANTH 210	Introduction to the Indigenous People of California (C,M)	ECON 121	Principles of Microeconomics (C,M,MMR)
ANTH 215	Cultures of Latin America (C,M)	ECON 220	Economics of the Environment (C,M)
ARTF 108	Women in Art (M)	ENGL 202	Introduction to Linguistics (C,M)
* BLAS 100	Introduction to Black Studies (C,M,MMR)	* FILI 100	Filipino American Experience (MMR)
BLAS 104	Black Psychology (C,M,MMR)	FJMP 101	Introduction to Mass Media (C)
BLAS 115	Sociology from a Black Perspective (C)	GDEV 101	Introduction to Global Development Studies (C)
BLAS 116	Contemporary Social Problems from a Black Perspective (C,M)	GEND 101	Introduction to Gender Studies (C,MMR)
BLAS 125	Dynamics of the Black Community (M)	GEOG 102	Cultural Geography (C,M,MMR)
BLAS 130	The Black Family (C,M)	GEOG 104	World Regional Geography (C,M,MMR)
BLAS 135	Introduction to Black Politics (C)	GEOG 154	Introduction to Urban Geography (C,M)
BLAS 140A	African American History to Reconstruction (C,M,MMR)	* HEAL 103	Introduction to Public Health (C,M)
BLAS 140B	African American History since Reconstruction to the Present (C,M,MMR)	HEAL 104	Public Health and Social Justice (M)
* BLAS 145A	Introduction to African History (C,M)	* HIST 100	World History I (C,M,MMR)
* BLAS 145B	Introduction to African History (C,M)	* HIST 101	World History II (C,M,MMR)
BLAS 175	Psycho-History of Racism and Sexism (M)	* HIST 105	Introduction to Western Civilization I (C,M,MMR)
* CHIC 110A	Introduction to Chicana and Chicano Studies (C,M,MMR)	* HIST 106	Introduction to Western Civilization II (C,M,MMR)
* CHIC 110B	Introduction to Chicano Studies (C,M)	HIST 109	History of the United States I (C,M,MMR)
CHIC 140	Chicana/o Sociology (C,M)	HIST 110	History of the United States II (C,M,MMR)
CHIC 141A	United States History from a Chicano Perspective (C,M,MMR)	HIST 115A	History of the Americas I (C,M,MMR)

HIST 115B	History of the Americas II (C,M,MMR)	PSYC 121	Introduction to Child Psychology (M)
* HIST 120	Introduction to Asian Civilizations (C,M,MMR)	PSYC 123	Adolescent Psychology (C,MMR)
* HIST 121	Asian Civilizations in Modern Times (C,M,MMR)	PSYC 133	Psychology of Women (M,MMR)
HIST 123	U.S. History from the Asian Pacific American Perspective (C,M,MMR)	* PSYC 135	Marriage and Family Relations (C,M,MMR)
HIST 130	The Modern Middle East (M)	* PSYC 137	Human Sexual Behavior (C,M,MMR)
* HIST 131	Latin America Before Independence (M)	PSYC 155	Introduction to Personality (C,M,MMR)
* HIST 132	Latin America Since Independence (M)	PSYC 166	Introduction to Social Psychology (C,M,MMR)
HIST 135	History of Technology (M)	PSYC 211	Learning (C,M,MMR)
HIST 141	Women in United States History I (M,MMR)	* PSYC 230	Psychology of Lifespan Development (C,M,MMR)
HIST 142	Women in United States History II (M,MMR)	PSYC 245	Abnormal Psychology (C,M,MMR)
HIST 150	Native Americans in United States History I (M)	PSYC 283	Introduction to Cognitive Psychology (C,M,MMR)
HIST 151	Native Americans in United States History II (M)	RTVF 101	Media Law and Ethics (C)
* HIST 154	Ancient Egypt (M)	RTVF 162	Women in Film (C)
HIST 175	California History (M)	SOCO 101	Principles of Sociology (C,M,MMR)
* HUMS 101	Introduction to Human Aging (C)	SOCO 110	Contemporary Social Problems (C,M,MMR)
JOUR 202	Introduction to Mass Communication (C,M,MMR)	SOCO 125	Sociology of the Family (C,M)
LABR 100	American Labor Movement (C)	* SOCO 145	Health and Society (C,M,MMR)
* NUTR 153	Cultural Foods (C,M,MMR)	SOCO 150	Sociology of Latinos/Latinas (C,M)
PADM 110	Introduction to Law and Society (C,M)	SOCO 201	Advanced Principles of Sociology (C,M,MMR)
PADM 200	Introduction to Public Administration (C,MMR)	SOCO 207	Introduction to Race and Ethnicity (C,M,MMR)
PEAC 101	Introduction to Peace Studies (C)	SOCO 220	Introduction to Research Methods in Sociology (C,M,MMR)
PHIL 109	Issues in Social Philosophy (M)	SOCO 223	Globalization and Social Change (C,M,MMR)
* PHIL 126	Introduction to Philosophy of Contemporary Gender Issues (C,M)	SPAN 222	Hispanic Culture and Civilization for Spanish Speakers (M)
POLI 101	Introduction to Political Science (C,M,MMR)	SUST 101	Introduction to Sustainability (C,M,MMR)
POLI 102	Introduction to American Government (C,M,MMR)	WMNS 101	Introduction to Gender and Women's Studies (M)
POLI 103	Comparative Politics (C,M,MMR)		
POLI 121	American Political Development (C,M,MMR)		
POLI 123	Gender and Politics (M)		
POLI 124	Power and Justice: An Introduction to Political Theory (C,M)		
POLI 140	Contemporary International Politics (C,M,MMR)		
PSYC 101	General Psychology (C,M,MMR)		
* PSYC 111	Psychological/Social Aspects of Aging, Death and Dying (C,M)		

Area E. Lifelong Learning and Self-Development:

Three semester units (4–5 quarter units), not all in physical activity.

AVIA 133	Human Factors in Aviation (MMR)
BIOL 120	The Environment of Man (M)
BIOL 135	Biology of Human Nutrition (MMR)
BLAS 165	Sexuality and Black Culture (C,M)

BUSE 120	Personal Financial Management (C,M,MMR)
BUSE 205	Leadership Theory and Practice (M)
* CHIL 101	Human Growth and Development (C,M,MMR)
* CHIL 103	Lifespan Growth and Development (MMR)
COMS 180	Intercultural Communication (C,M,MMR)
DANC 127	Movement for Wellness (C,M)
EXSC 125A	Aerobic Dance I (C,M,MMR)
EXSC 125B	Aerobic Dance II (C,M,MMR)
EXSC 125C	Aerobic Dance III (C,M,MMR)
EXSC 125D	Aerobic Dance IV (C,M,MMR)
EXSC 126A	Cardio Conditioning I (C,M,MMR)
EXSC 126B	Cardio Conditioning II (C,M,MMR)
EXSC 126C	Cardio Conditioning III (C,M,MMR)
EXSC 126D	Cardio Conditioning IV (C,M,MMR)
EXSC 134	Adapted Weight Training (C,M,MMR)
EXSC 135A	Individual Conditioning I (C,M,MMR)
EXSC 135B	Individual Conditioning II (C,M,MMR)
EXSC 135C	Individual Conditioning III (C,M,MMR)
EXSC 135D	Individual Conditioning IV (C,M,MMR)
EXSC 145A	Yoga I (C,M,MMR)
EXSC 145B	Yoga II (C,M,MMR)
EXSC 145C	Yoga III (C,M,MMR)
EXSC 145D	Yoga IV (C,M,MMR)
EXSC 294	Health and Wellness Coaching (C)
HEAL 101	Health and Life Style (C,M,MMR)
* HEAL 103	Introduction to Public Health (C, M)
HEAL 104	Public Health and Social Justice (M)
HEAL 107	Lifestyle Medicine for Health and Wellness (M)
* HUMS 101	Introduction to Human Aging (C)
NUTR 150	Nutrition (C,M,MMR)
* NUTR 153	Cultural Foods (M,MMR)
PERG 120	College Success and Lifelong Learning (C,M,MMR)
PERG 130	Career - Life Planning (C,M,MMR)
PERG 140	Life Skills and Personal Adjustment (C,M,MMR)
PERG 160	Stress Management & Well-Being in the Modern World (C,M,MMR)
* PSYC 111	Psychological/Social Aspects of Aging, Death and Dying (C,M)
PSYC 112	Interpersonal Relations (M)

* PSYC 135	Marriage and Family Relations (C,M,MMR)
* PSYC 137	Human Sexual Behavior (C,M,MMR)
* PSYC 230	Psychology of Lifespan Development (C,M,MMR)
* SOCO 145	Health and Society (C,M,MMR)

Note: Students who have completed at least 6 months of continuous active US military service have satisfied Area E. DD214 or military transcript must be on file.

Area F. Ethnic Studies

Three Semester Units (4 quarter units).

* BLAS 100	Introduction to Black Studies (C,M,MMR)
* CHIC 110A	Introduction to Chicana and Chicano Studies (C,M,MMR)
* CHIC 110B	Introduction to Chicana and Chicano Studies (C,M)
* FILI 100	Filipino American Experience (MMR)

Other Transfer General Education Options

Some transfer students are best served by following a general education pattern other than the IGETC or CSUGE-B patterns. These typically include students who fall into one of the following three categories:

1. Students entering high unit majors such as an engineering or science discipline. Major preparation for the engineering and science fields typically consists of a high number of units. Most universities prefer (and some require) that these preparation for major courses be completed prior to transfer. Therefore, it may be more beneficial for students entering these majors to complete relatively fewer GE courses and more major preparation courses at the community college, while still meeting the minimum admission requirements of the university. Students should review the catalog or other published advising materials of the university and major to which they intend to transfer and then consult a City counselor for assistance in selecting appropriate courses.

2. Students transferring to a private/independent or out-of-state university. Some private/independent and out-of-state universities accept IGETC or CSUGE-B, but most do not. Instead, each university has its own unique GE pattern. City College has established articulation agreements with many of these institutions. These agreements specify the courses students can complete at City to fulfill the university's GE requirements. They are available at www.sdcity.edu/about/articulation/index.aspx. For more information on transferring to a private/independent or out-of-state university, visit the Transfer Center (A-301) or see a counselor.
3. Students who wish to complete the general education requirements of one specific university. Some students decide to complete the GE requirements for one specific university, rather than the more universally applicable IGETC or CSUGE-B patterns, for several reasons:
 - Some universities and/or majors do not accept IGETC and instead suggest following the university's own GE pattern.
 - Some students know that they will attend only one university (such as those with a guarantee of transfer admission) and so plan to complete the specific GE pattern for that institution only.
 - Some university-specific GE patterns require fewer total units than IGETC or CSUGE-B.

Each university's unique GE pattern can be found in the university catalog. In addition, some UC and CSU campuses have posted their unique general education patterns to the ASSIST website at: www.assist.org.

Degree Curricula and Certificate Programs



Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Accounting							
Accounting				X			156
Bookkeeping for a Small Business						X	154
Certified Public Accountant Preparatory Program						X	154
Fundamentals of Accounting						X	155
Recordkeeping for a Small Business						X	155
Tax Preparer						X	155
VITA Tax Preparation Training						X	156
Agriculture							
Agriculture Plant Science		X					159
Organic Gardening for the Culinary Arts						X	158
Sustainable Urban Agriculture				X			159
Urban Farming Professional					X		158
Urban Gardening					X		159
Air Conditioning, Refrigeration, and Environmental Control Technology							
Advanced Air Conditioning and Direct Digital Control					X		161
Advanced HVAC/R Mechanical Systems Installation and Repair					X		162
Air Conditioning, Heating, and Advanced Refrigeration					X		162
Air Conditioning, Refrigeration, and Environmental Control Technology				X			163
Basic HVAC/R Mechanical Systems Installation					X		162
Basic Refrigeration and Control Systems						X	161

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Heating, Ventilation, and Air Conditioning Systems Design					X		162
HVAC/R Mechanical Systems Installation and Repair				X			164
Mechanical Systems and Solid-State Electronics Technician				X	X		163
Mechanical Systems Project Development				X	X		163
Alcohol and Other Drug Studies							
Alcohol and Other Drug Studies				X	X		165
American Sign Language							
American Sign Language			X		X		167
Anthropology							
Anthropology		X	X				169
Archaeology					X		168
Art – Fine Art							
Advanced Arts Entrepreneurship						X	170
Art History		X					173
Arts Entrepreneurship						X	171
Studio Arts		X					175
Studio Arts Entrepreneurship					X		172
Two-Dimensional Art			X				172
Three-Dimensional Art			X				173
Astronomy							
Astronomy				X			177
Biology							
Allied Health Track				X			178
Biology		X					179
Transfer Track				X			179
Black Studies							
Black Studies			X				181
Business Studies							
Business Administration 2.0		X					185
Business Operations-Cannabis Dispensary						X	182

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Customer Relationship Management						X	183
Fundamentals of Marketing						X	183
Management and Team Building						X	184
Small Business Management				X	X		185
Starting and Managing a Small Business						X	184
Writing and Computational Skills for Business						X	184
Chemistry							
Chemistry				X			187
Chicana and Chicano Studies							
Chicana and Chicano Studies			X				189
Child Development							
Child Development: Associate Teacher					X		190
Child Development: Master Teacher					X		190
Child Development: Teacher					X		191
Early Care and Education				X			192
Communication Studies							
Communication Studies			X			X	193
Communication Studies 2.0		X					
Communication Studies: Business						X	194
Communication Studies: Health Communication						X	194
Communication Studies: Voice and Performance						X	194
Computer Business Technology							
Microsoft Excel Essentials						X	197
Microsoft Office Essentials						X	197

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Computer Information Systems							
Amazon Web Services (AWS) Cloud Technician I						X	199
C++					X		202
Computer Programming				X	X		203
Cybersecurity				X	X		202
Cyber Defense and Analysis	X						206
Cyber Incident Response						X	200
Desktop Support Technician I						X	200
Desktop Support Technician II					X		204
Game Programming						X	200
Information Technology Management				X	X		204
Intermediate C++						X	201
Introduction to C++						X	200
Microsoft Technology Specialist						X	201
Network Security I						X	202
Network Security II					X		204
Web Application Development						X	202
Conflict Resolution							
Conflict Resolution and Mediation					X	X	208
Cosmetology							
Cosmetology				X	X		211
Cosmetology Teacher Training Program						X	210
Esthetician					X		211
Esthetician Business Administration				X			211
Nail Technician						X	210
Dance							
Dance			X		X	X	213
Design							
Graphic Design			X		X		216

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Graphic Design Fundamentals					X		216
Interaction Design			X		X		217
Digital Journalism							
Journalism		X					218
Economics							
Economics		X			X		219
Fundamentals of Economics						X	219
Electricity							
Electrical Control Systems Option					X		222
Electrical Recertification Preparation						X	222
Electricity				X	X		222
Lineman				X	X		223
Electromechanical Engineering Technology							
Advanced Electromechanical Technology						X	224
Electromechanical Technology						X	224
Electronics							
Electronic Communication Systems				X	X		226
Electronic Microprocessor/ Microcontroller Design				X	X		227
Electronics					X		226
Electronics Technician Level I						X	226
Energy and Geo-Environmental Engineering							
Energy Analysis and Consultation				X	X		229
Green Building Energy Professional				X	X		229
Engineering							
Drafting Option					X		231
Engineering				X			231

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Pre-Engineering Technology						X	232
Robotics Engineering						X	232
English							
Creative Writing						X	234
English		X	X				234
English Language Acquisition							
English Language Acquisition						X	236
Exercise Science							
Health and Wellness Coaching						X	238
Kinesiology		X					239
Personal Trainer					X		239
Film, Journalism and Media Production							
Film Production				X	X	X	241
Film, Television and Electronic Media		X					
Media Production				X	X	X	242
Multimedia Journalism				X	X	X	242
Radio and Podcast				X	X	X	243
French							
French			X				250
General Education							
General Education CSU Transfer Pattern					X		251
General Education Intersegmental General Education Transfer Curriculum (IGETC)					X		251
Geography							
Geography		X		X			252
Geology							
Geology		X		X			254
German							
German			X				256
History							
History		X	X				257

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Human Services							
Community Health Work					X	X	259
Gerontology					X		261
Italian							
Italian			X				263
Labor Studies							
History and Politics of American Labor						X	264
Labor Studies					X		264
Liberal Arts and Sciences							
Language Arts and Humanities			X				265
Scientific Studies in Biological Science			X				267
Scientific Studies Mathematics and Pre-Engineering			X				268
Scientific Studies Physical and Earth Sciences Specialization			X				269
Social and Behavioral Sciences			X				270
Visual and Performing Arts			X				265
Machine Technology							
Computer Aided Manufacturing						X	274
Computer Numerical Control (CNC) Operator Option						X	275
Computer Aided Manufacturing (CAM) Option				X	X		275
Computer Numerical Control (CNC) Technology Option					X	X	275
Manufacturing Engineering Technology							
Advanced Manufacturing						X	278
Advanced Mechanical Design						X	281
Electronic Manufacturing						X	277

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Electronics Manufacturing					X		278
Fabrication Manufacturing					X		279
Introduction to Manufacturing						X	277
Lean Six Sigma						X	278
Manufacturing Engineering Technology - Option: Electronics				X			279
Manufacturing Engineering Technology Option: Fabrication				X			280
Manufacturing Fundamentals						X	278
Mechanical Design						X	281
Mathematics							
Applied Mathematics			X				282
Mathematics		X	X				282
Music – Commercial							
Audio Production Technology					X		285
Music Production Technology				X			285
Nursing Education							
Licensed Vocational Nurse to Registered Nurse (Advanced Placement)				X			288
Licensed Vocational Nurse to Registered Nurse - Thirty Unit Option							289
Registered Nurse: Generic				X			287
Philosophy							
Philosophy		X	X				291
Photography							
Black and White Photography						X	294
Commercial Photography						X	294

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
Digital Photography						X	294
Freelance Photography					X	X	295
Photography			X		X		295
Physics							
Physics		X		X			298
Political Science							
Law, Public Policy, and Society		X					300
Political Science		X	X				300
Public Administration					X		299
Psychology							
Mental Health Work					X		303
Psychology		X	X				303
Real Estate							
Real Estate Salesperson						X	305
Real Estate Broker					X		306
Real Estate				X			306
Social Work							
Social Work			X				307
Sociology							
Sociology		X	X				308
Spanish							
Spanish		X	X				310
Sustainability							
Sustainability			X				312
Theatre							
Musical Theatre			X				315
Special Effects (FX) Makeup					X	X	313
Technical Theatre					X		314
Theatre			X				316
Theatre Arts		X					316
Theatrical Glamour for Media and Performance						X	314
Apprenticeship							
Communications Technician Apprenticeship				X	X		319

Degree and Certificate List

Degree	B.S. Degree	Associate Degree for Transfer	A.A. Degree	A.S. Degree	Certificate of Achievement	Certificate of Performance	Page
San Diego Gas and Electric Company Lineman Apprenticeship				X	X		320
San Diego Transit Electronic Technician Apprenticeship				X	X		321
San Diego Trolley Inc Light Rail Vehicle Lineman Apprenticeship				X	X		322
San Diego Trolley Inc Revenue Maintainer Apprenticeship				X	X		322
San Diego Trolley Inc Wayside Lineman Apprenticeship				X	X		322
Operating and Maintenance Engineers				X	X		318
Solar Turbines, Incorporated Apprenticeship				X	X		324

Accounting

Award Type	Units
Certificate of Performance	
Bookkeeping for a Small Business	6
Certified Public Accountant Preparatory Program	6-7
Fundamentals of Accounting	8
Recordkeeping for a Small Business	3
Tax Preparer	4
VITA Tax Preparation Training	2-5
Associate of Science Degree	
Accounting	18*

*and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Accounting program at San Diego City College offers certificates of performance, certificates of achievement, and associate degree awards in the field of accounting and financial management. Areas of emphasis include tax and certified public accounting (CPA) preparation, financial management, and fundamentals in accounting. Awards are designed to prepare students with an educational framework for effective leadership in an accounting position. Coursework offered by the program equips students for transfer to a four-year institution, while providing foundational skills to obtain entry-level positions, enhance existing job competencies, and prepare for the Certified Public Accountant (CPA) and Certified Management Accountant (CMA) license.

Program Learning Outcomes

Students who complete the program will be able to:

- Develop and apply appropriate communication skills across various business settings.
- Analyze business scenarios to formulate and implement plans of action.
- Leverage technology to manage and use information for decision making.

Faculty	Office	Telephone
Shana Carr	BT-210F	619-388-3110

Academic Programs

The associate degree in Accounting requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of the catalog. The associate degree requires a minimum of 60 units.

Certificate of Performance: Bookkeeping for a Small Business*

Program Learning Outcomes

Students who complete the certificate will be able to:

- Accurately complete an accounting cycle: preparing journal entries; posting to the general ledger; and preparing a worksheet, financial statement, adjusting and closing entries and post closing trial balance.
- Accurately complete an accounting cycle using a computerized accounting program.

Courses:	Units
ACCT 102 Basic Accounting	3
ACCT 150 Computer Accounting Applications	3
Total Units = 6	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Certified Public Accountant Preparatory Program*

There is an increasing demand for qualified individuals in the niche government and nonprofit accounting sector. The Certificate of Performance in Certified Public Accounting Preparatory Program provides an in-depth exploration of government and nonprofit accounting, ethics, and auditing. Students learn about government and nonprofit specific accounting practices as well as auditing techniques used in the accounting field. Emphasis is placed on careers in the accounting field and preparation for students interested in earning the California Certified Public Accountant License.

Career Options:

Some careers in accounting require education beyond the associate degree. Examples of careers in accounting include: bookkeeper, accounting clerk, accounting assistant, bill and accounts collector, billing clerk, payroll clerk, data entry clerk, bank teller, data-entry specialist, etc.

Courses:	Units
ACCT 119 Accounting Ethics	3

Complete one course from the following:

ACCT 125 Government & Not-for-Profit Accounting	3
ACCT 135 Principles of Auditing	3
ACCT 220 Uniform CPA Examination Review Course	4

Total Units = 6-7

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Fundamentals of Accounting*

The Certificate of Performance in Fundamentals of Accounting is designed for students seeking to gain skills and knowledge in the field of accounting. Possible entry-level positions for this certificate include accounting clerk, accounts payable/receivable clerk, claims clerk, bookkeeper, data-entry specialist, or comparable positions. ACCT 116A and ACCT 116B provide students a comprehensive introduction to the field of accounting and an avenue to meet the core requirements for accounting majors at universities.

Career Options:

Some careers in accounting require education beyond the associate degree. Examples of careers in accounting include: bookkeeper, accounting clerk, accounting assistant, bill and accounts collector, billing clerk, payroll clerk, data entry clerk, bank teller, data-entry specialist, etc.

Courses:	Units
ACCT 116A Financial Accounting	4
ACCT 116B Managerial Accounting	4

Total Units = 8

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Recordkeeping for a Small Business*

The Record Keeping for a Small Business certificate prepares a small business owner to organize business records and accurately prepare payroll.

Program Learning Outcomes

Students who complete the certificate will be able to:

- Accurately prepare and organize accounting records and produce financial statements for a small business.
- Accurately prepare all the state and federal payroll tax forms required by a small business in California.

Courses:	Units
ACCT 128A Recordkeeping	1.5
ACCT 128B Payroll	1.5

Total Units = 3

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Tax Preparer*

Program Learning Outcomes

Students who complete the certificate will be able to:

- Accurately prepare current Federal and State tax returns.

California Tax Education Council (CTEC)

San Diego City College is approved by the California Tax Education Council (CTEC) to provide tax preparation courses that comply with current professional tax education standards. San Diego City College's CTEC provider number is 2006. Students

interested in obtaining a California Tax Preparer certificate must complete Accounting 120 and Accounting 121 **at San Diego City College, and courses must be taken face-to-face.** Completion of the two classes with a grade of “C” or better, provides the student with 60 hours (45 hours of Federal credit and 15 hours of California credit). Students will not be issued a certificate nor have hours count towards a certificate if courses are taken online or at other colleges, including Mesa College or Miramar College, that offer Accounting 120 and Accounting 121.

Courses:		Units
ACCT 120	Federal Income Tax	3
ACCT 121	California Income Tax	1
Total Units = 4		

*A Certificate of Performance is a departmental award that does not appear on the student’s transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: VITA Tax Preparation Training*

This program provides an in-depth exploration of tax preparation and community outreach. Students are trained in tax preparation methods through the Volunteer Income Tax Assistance Program (VITA). VITA provides free tax preparation services to low-income households in the community. Students are trained to prepare taxes for these households through the Internal Revenue Service (IRS) tax software. Students may be certified at a basic and advanced level of VITA and IRS tax preparation upon completion of this program.

Program Goals

The goal of this program is to provide accelerated training and on-the-job experience in tax preparation for students exploring a career in accounting. Students are trained in tax preparation and customer service. Students complete volunteer experience working with the community preparing taxes. The program provides employment preparation in various accounting fields such as tax preparation, bookkeeping, and financial specialization.

Career Options

- Tax Preparer

- Bookkeeper
- Financial Specialists
- Accounting fields

Courses:		Units
ACCT 132	Internal Revenue Service Tax Training	1
ACCT 270	Accounting Internship / Work Experience	1–4
Total Units = 2–5		

*A Certificate of Performance is a departmental award that does not appear on the student’s transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Associate of Science Degree: Accounting

The Accounting associate degree prepares students for entrance into the accounting field. The degree provides students with basic accounting skills necessary to be successful in the industry. This degree is intended for students majoring in accounting, and students looking to update their accounting skill set.

Note:

For a current list of articulated courses to CSU or UC business major visit www.assist.org. Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of the catalog. Students interested in careers as professional accountants should select the Business Studies San Diego State University Transfer Option.

The associate degree requires a minimum of 60 units.

Career Options

Students who successfully complete the degree have the skill set necessary for the following careers:

- Accounting Clerk
- Accounts Payable Specialists
- Bookkeeping
- Payroll Clerk
- Accounting Technicians
- Tax Aides

- Financial Management Assistants

Courses Required for the Major		Units
ACCT 116A	Financial Accounting	4
ACCT 116B	Managerial Accounting	4
BUSE 119	Business Communications	3

Complete a minimum of 7 units from the following:

ACCT 102	Basic Accounting	3
ACCT 119	Accounting Ethics	3
ACCT 120	Federal Income Tax	3
ACCT 121	California Income Tax	1
ACCT 125	Government & Not-for-Profit Accounting	3
ACCT 128A	Recordkeeping	1.5
ACCT 128B	Payroll	1.5
ACCT 135	Principles of Auditing	3
ACCT 150	Computer Accounting Applications	3
BUSE 101	Business Mathematics	3
BUSE 120	Personal Financial Management	3
CBTE 143	Intermediate Microsoft Excel	3

Total Units = 18

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of the catalog. Students interested in careers as professional accountants should select the Business Studies San Diego State University Transfer Option. **The associate degree requires a minimum of 60 units.**

Agriculture

Sustainable Urban Agriculture

Award Type	Units
Certificate of Performance	
Organic Gardening for the Culinary Arts	7
Certificate of Achievement	
Urban Farming Professional	27–30
Urban Gardening	12
Associate of Science Degree	
Sustainable Urban Agriculture	23*
*and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Science for Transfer Degree:	
Agriculture Plant Science	20

Sustainable Urban Agriculture

Program Description:

Sustainable Urban Agriculture offers a hands-on approach for students to enter into the academic and/or professional fields related to sustainable agriculture. This program provides a foundation in plant and soil science, integrated pest management, and crop production while focusing on ecological principles of sustainable agriculture. Students gain practical experience working alongside professional urban farmers and farm educators in the Seeds at City Urban Farm on the City College campus. The primary aim is to train a diverse group of skilled organic practitioners who actively participate in improving the health of their environment, food, and communities through small-scale organic food production, education, advocacy, and social service programs.

Program Goals:

This program provides students the opportunity to analyze issues and implement solutions related to small-scale urban agriculture and to apply their knowledge in hands-on learning at the Seeds at City Urban Farm. The primary aim is to train a diverse group of skilled organic practitioners who actively participate in improving the health of their environment, food, and communities through

small-scale organic food production, education, advocacy, and social service programs.

Program Emphasis:

This program provides a foundation in plant and soil science, integrated pest management, and crop production while focusing on ecological principles of sustainable agriculture. Courses emphasize the how-to aspects of organic gardening and farming, including compost production, greenhouse propagation, crop planning and production.

Career Options:

San Diego City College offers certificates, degrees and transfer options in the Sustainable Urban Agriculture program. The Certificate of Performance, Organic Gardening for the Culinary Arts, compliments educational programs in the culinary arts. The Urban Gardening Certificate of Achievement provides skills and knowledge for careers at an organic farm, nursery, commercial greenhouse or to manage a community garden. The Certificate of Achievement in Urban Farming Professional prepares students and professionals to establish and operate an organic urban farm business. The Sustainable Urban Agriculture, Associate of Science Degree, prepares students to transfer to a four-year college to study agriculture, sustainable agriculture, plant science, crop science, agricultural business, or ecology.

Program Learning Outcomes:

Students who complete this program should be able to:

- Understand and explain the three facets of sustainability (economic, environmental and social) both in general and as they apply specifically to landscaping, practices.
- Understand and explain the components of a food system.
- Design an organic urban farm that supports natural ecosystems, human health, and water conservation.
- Evaluate the soil food web.
- Create a crop plan that is appropriate for the southwest region.

- Identify plant disease and pests and incorporate integrated pest management and other organic strategies for a resilient food system.
- Demonstrate basic propagation techniques.

Faculty	Office	Telephone
Erin McConnell	S-311C	619-388-4411

Certificate of Performance: Organic Gardening for the Culinary Arts*

This certificate is designed for students who want to learn or improve their organic gardening knowledge and skills. The program provides the skills and knowledge to implement a healthier, sustainable food system that emphasizes small-scale urban food production.

Courses:	Units
AGRI 102 Sustainable Urban Agricultural Practice	3
AGRI 128 Food Preservation Skills	1
AGRI 104 Sustainable Vegetable Production	3
Total Units = 7	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Urban Farming Professional

This certificate prepares students and professionals to establish and operate an organic urban farm business.

Courses required for the major:	Units
AGRI 100 Principles of Sustainable Agriculture	3
AGRI 102 Sustainable Urban Agricultural Practice	3
AGRI 104 Sustainable Vegetable Production	3
AGRI 110 Introduction to Fruit Tree Management	3
AGRI 114 Plant Propagation	3
AGRI 116 Drip Irrigation Basics	2
AGRI 125 Introduction to Soil Science	3
AGRI 270 ¹ Work Experience in Sustainable Urban Agriculture	1-4

BUSE 157	Developing a Plan for the Small Business	3
BUSE 119	Business Communications	3
Total Units = 27–30		

Recommended Electives: Agriculture 107, 128; Biology 101; Business 155; Marketing 100.

¹ AGRI 270 is only offered as a 3 unit course.

Certificate of Achievement: Urban Gardening

This certificate prepares students for careers at an organic farm, nursery, commercial greenhouse or to manage a community garden.

Courses Required for the Major:		Units
AGRI 102	Sustainable Urban Agricultural Practice	3
AGRI 104	Sustainable Vegetable Production	3

Choose 6 units from the following electives:

AGRI 100	Principles of Sustainable Agriculture	3
AGRI 107	Introduction to Agricultural Plant Science	4
AGRI 110	Introduction to Fruit Tree Management	3
AGRI 114	Plant Propagation	3
AGRI 116	Drip Irrigation Basics	2
AGRI 125	Introduction to Soil Science	3
AGRI 128	Food Preservation Skills	1

Total Units = 12

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Associate of Science Degree: Sustainable Urban Agriculture

The Sustainable Urban Agriculture program prepares students to transfer to a four-year college to continue their studies in agriculture and related fields.

Courses required for the major:		Units
AGRI 100	Principles of Sustainable Agriculture	3
AGRI 102	Sustainable Urban Agricultural Practice	3
AGRI 104	Sustainable Vegetable Production	3
AGRI 125	Introduction to Soil Science	3
AGRI 107	Introduction to Agricultural Plant Science	4
CHEM 100	Fundamentals of Chemistry	3
CHEM 100L	Fundamentals of Chemistry Laboratory	1

SUST 101	Introduction to Sustainability	3
Total Units = 23		

Associate in Science in Agriculture Plant Science for Transfer Degree:

Program Description:

The Associate in Science in Agriculture Plant Science for Transfer Degree is intended for students who plan to complete a bachelor's degree in Agriculture Plant Science or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 133) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.
- It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some

CSU campuses and majors may require a higher GPA. Please see a counselor for more information.

- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 133 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Emphasis:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
AGRI 125	Introduction to Soil Science	3
AGRI 114	Plant Propagation	3
AGRI 107	Introduction to Agricultural Plant Science	4
CHEM 100	Fundamentals of Chemistry	3
CHEM 100L	Fundamentals of Chemistry Laboratory	1
ECON 121	Principles of Microeconomics	3
MATH 119	Elementary Statistics	3
Total Units = 20		

Air Conditioning, Refrigeration, and Environmental Control Technology

Award Type	Units
Certificate of Performance	
Basic Refrigeration and Control Systems	11
Certificate of Achievement	
Advanced Air Conditioning and Direct Digital Control	33
Advanced HVAC/R Mechanical Systems Installation and Repair	24
Air Conditioning, Heating, and Advanced Refrigeration	31
Basic HVAC/R Mechanical Systems Installation	19
Heating, Ventilation, and Air Conditioning Systems Design	31
Mechanical Systems and Solid-State Electronics Technician	30
Mechanical Systems Project Development	33
Associate of Science Degree	
Air Conditioning, Refrigeration, and Environmental Control Technology	36*
HVAC/R Mechanical Systems Installation and Repair	24*
Mechanical Systems and Solid-State Electronics Technician	30*
Mechanical Systems Project Development	33*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Air Conditioning, Refrigeration, and Environmental Control Technology (AIRE) Program offers a comprehensive study of heating, ventilation, air conditioning and refrigeration (HVACR). The AIRE Program course of study includes the technology of controlled environments for homes, buildings and conditioned spaces, with topics ranging from residential refrigeration to commercial air conditioning and industrial freezing systems. Particular focus is directed toward energy efficiency and integration with Green Technology, including alternative energy systems.

Program Goals

The AIRE Program offers a series of complementary certificates that may be used for job placement and advancement in the field. When combined with the appropriate general education and graduation requirements, an AIRE Program certificate leads to an Associate of Science Degree that may be used for advanced job placement and as preparation for a four-year engineering or air conditioning and refrigeration technology program.

Career Options

The AIRE Program trains students in traditional career options that include air conditioning and/or refrigeration contractor, service manager, dispatcher, HVAC or refrigeration service technician, manufacturer service representative, sales engineer, service engineer, facilities or plant operations engineer, HVACR consultant, and control systems designer/commissioner. The AIRE Program also prepares students to enter into Green careers that include solar energy technician or contractor, solar system design engineer and HVAC and solar integration specialist.

Program Learning Outcomes

Students who complete the program will be able to:
Size and design an HVACR system for a structure or commercial application.

- Correctly diagnose and repair HVACR equipment using a minimum of replacement parts.
- Articulate the effects of deficient or excessive sub-cooling, superheat, air flow or water flow through an HVACR system.
- Utilize knowledge of the Refrigeration Cycle to charge a typical AC system.
- Trace power and control voltages in the diagnosis of HVACR equipment.

Faculty	Office	Telephone
Farnaz Khoromi	T-373	619-388-3527

Academic Programs

The certificates of performance and achievement and associate degree require completion of the courses listed below.

Certificate of Performance: Basic Refrigeration and Control Systems*

With a California and U.S. emphasis on energy efficiency and sustainability, there is a need for well trained mechanical technicians. This Certificate of performance prepares students with knowledge and skill in the installation, maintenance and repair of residential and light-commercial Heating - Ventilation - Air Conditioning & Refrigeration (HVACR) systems.

Courses:		Units
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
Total Units = 11		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Advanced Air Conditioning and Direct Digital Control

Advanced Air Conditioning and Direct Digital Control focuses on precise, automated control of air conditioning and lighting systems with the goal of providing optimum comfort at minimal operational cost.

Courses Required for the Major:		Units
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 126	Fluid Flow Dynamics	3
AIRE 127	Fluid Flow Dynamics Lab	2
AIRE 128	Comfort Heating Systems Theory	4
AIRE 129	Comfort Heating Systems Lab	2
AIRE 138	HVAC System Design	3
AIRE 139	HVAC System Design Lab	2
AIRE 144	Direct Digital Controls Theory	4
AIRE 145	Direct Digital Controls Lab	2
Total Units = 33		

Recommended Electives: Air Conditioning, Refrigeration, and Environmental Control Technology 132 and 133.

Certificate of Achievement: Advanced HVAC/R Mechanical Systems Installation and Repair

The Certificate of Achievement in Advanced HVAC/R Mechanical Systems Installation and Repair provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC/R) and appliance installation, maintenance, and repair. The pathway includes preparation for a Class C California License and various industry-recognized certifications pertaining to the HVAC/R industry.

Courses Required for the Major:		Units
AIRE 60	Construction Safety and Health	2
AIRE 94	HVAC/R Certification Training	3
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 132	Advanced Refrigeration & AC Theory	3
AIRE 133	Advanced Refrigeration & AC Lab	2
EGEE 50	Building Science Principles	3

Total Units = 24

Certificate of Achievement: Air Conditioning, Heating, and Advanced Refrigeration

The Air Conditioning, Heating and Advanced Refrigeration certificate focuses on advanced, complex, high efficiency HVACR systems and their components.

Courses Required for the Major:		Units
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 122	Construction Drawings & Estimating	3
AIRE 123	Construction Drawings & Estimating Lab	1
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 126	Fluid Flow Dynamics	3
AIRE 127	Fluid Flow Dynamics Lab	2
AIRE 128	Comfort Heating Systems Theory	4
AIRE 129	Comfort Heating Systems Lab	2
AIRE 132	Advanced Refrigeration Theory	3
AIRE 133	Advanced Refrigeration & AC Lab	2

Total Units = 31

Certificate of Achievement: Basic HVAC/R Mechanical Systems Installation

The Certificate of Achievement in Basic HVAC/R Mechanical Systems Installation provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC/R) and appliance installation and maintenance. The pathway includes preparation for a Class C California License and various industry-recognized certifications pertaining to the HVAC/R industry.

Courses Required for the Major:		Units
AIRE 60	Construction Safety and Health	2
AIRE 94	HVAC/R Certification Training	3
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
EGEE 50	Building Science Principles	3

Total Units = 19

Certificate of Achievement: Heating, Ventilation, and Air Conditioning Systems Design

The Certificate of Achievement in Heating, Ventilation, and Air Conditioning Systems Design focuses on the integration of HVAC components and equipment into the design of optimally functional and energy efficient building air conditioning systems.

Courses Required for the Major:		Units
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 122	Construction Drawings & Estimating	3
AIRE 123	Construction Drawings & Estimating Lab	1
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 126	Fluid Flow Dynamics	3
AIRE 127	Fluid Flow Dynamics Lab	2
AIRE 128	Comfort Heating Systems Theory	4
AIRE 129	Comfort Heating Systems Lab	2
AIRE 138	HVAC System Design	3
AIRE 139	HVAC System Design Lab	2

Total Units = 31

Recommended Electives: Air Conditioning, Refrigeration, and Environmental Control Technology 132 and 133, 144 and 145.

Certificate of Achievement: Mechanical Systems and Solid-State Electronics Technician

The Certificate of Achievement in Mechanical Systems and Solid-State Electronics Technician provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC/R) and appliance installation, maintenance, and repair. The pathway includes preparation for a Class C California License and various industry-recognized certifications pertaining to the HVAC/R industry.

Courses Required for the Major:		Units
AIRE 60	Construction Safety and Health	2
AIRE 94	HVAC/R Certification Training	3
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 132	Advanced Refrigeration & AC Theory	3
AIRE 133	Advanced Refrigeration & AC Lab	2
AIRE 144	Direct Digital Controls Theory	4
AIRE 145	Direct Digital Controls Lab	2
EGEE 50	Building Science Principles	3
or		
EGEE 55	Air Quality Management and Systems	3
		Total Units = 30

Certificate of Achievement: Mechanical Systems Project Development

The Certificate of Achievement in Mechanical Systems Project Development provides students with provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC/R) and appliance installation, maintenance, and repair. The pathway includes preparation for a Class C California License and various industry-recognized certifications pertaining to the HVAC/R industry.

Courses Required for the Major:		Units
AIRE 60	Construction Safety and Health	2
AIRE 94	HVAC/R Certification Training	3
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 122	Construction Drawings and Estimating	3
AIRE 123	Construction Drawings and Estimating Lab	1

AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 126	Fluid Flow Dynamics	3
AIRE 127	Fluid Flow Dynamics Lab	2
AIRE 138	HVAC System Design	3
AIRE 139	HVAC System Design Lab	2
EGEE 50	Building Science Principles	3
or		
EGEE 55	Air Quality Management and Systems	3
		Total Units = 33

Associate of Science Degree: Air Conditioning, Refrigeration, and Environmental Control Technology

The Air Conditioning, Refrigeration and Environmental Control Technology AS degree focuses on the study of complex, high efficiency HVAC/R, advanced controls and alternative energy systems.

Courses Required for the Major:		Units
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 122	Construction Drawings & Estimating	3
AIRE 123	Construction Drawings & Estimating Lab	1
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 126	Fluid Flow Dynamics	3
AIRE 127	Fluid Flow Dynamics Lab	2
AIRE 128	Comfort Heating Systems Theory	4
AIRE 129	Comfort Heating Systems Lab	2
AIRE 132	Advanced Refrigeration Theory	3
AIRE 133	Advanced Refrigeration & AC Lab	2
AIRE 138	HVAC System Design	3
AIRE 139	HVAC System Design Lab	2
		Total Units = 36

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Recommended Electives: Air Conditioning, Refrigeration and Environmental Control Technology 144 and 145, 160 and 270, 290; Computer Business Technology 180.

Associate of Science Degree: HVAC/R Mechanical Systems Installation and Repair

The Associate of Science in HVAC/R Mechanical Systems Installation and Repair provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC/R) and appliance installation, maintenance, and repair. The pathway includes preparation for a Class C California License and various industry-recognized certifications pertaining to the HVAC/R industry.

Courses Required for the Major:		Units
AIRE 60	Construction Safety and Health	2
AIRE 94	HVAC/R Certification Training	3
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 132	Advanced Refrigeration & AC Theory	3
AIRE 133	Advanced Refrigeration & AC Lab	2
EGEE 50	Building Science Principles	3
Total Units = 24		

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate of Science Degree: Mechanical Systems and Solid- State Electronics Technician

The Associate of Science in Mechanical Systems and Solid-State Electronics Technician provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC/R) and appliance installation, maintenance, and repair. The pathway includes preparation for a Class C California License and various industry-recognized certifications pertaining to the HVAC/R industry.

Courses Required for the Major:		Units
AIRE 60	Construction Safety and Health	2
AIRE 94	HVAC/R Certification Training	3
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 132	Advanced Refrigeration & AC Theory	3
AIRE 133	Advanced Refrigeration & AC Lab	2

AIRE 144	Direct Digital Controls Theory	4
AIRE 145	Direct Digital Controls Lab	2
EGEE 50	Building Science Principles	3
or		
EGEE 55	Air Quality Management and Systems	3
Total Units = 30		

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate of Science Degree: Mechanical Systems Project Development

The Associate of Science in Mechanical Systems Project Development provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC/R) and appliance installation, maintenance, and repair. The pathway includes preparation for a Class C California License and various industry-recognized certifications pertaining to the HVAC/R industry.

Courses Required for the Major:		Units
AIRE 60	Construction Safety and Health	2
AIRE 94	HVAC/R Certification Training	3
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 122	Construction Drawings and Estimating	3
AIRE 123	Construction Drawings and Estimating Lab	1
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 126	Fluid Flow Dynamics	3
AIRE 127	Fluid Flow Dynamics Lab	2
AIRE 138	HVAC System Design	3
AIRE 139	HVAC System Design Lab	2
EGEE 50	Building Science Principles	3
or		
EGEE 55	Air Quality Management and Systems	3
Total Units = 33		

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Alcohol and Other Drug Studies

Award Type	Units
Certificate of Achievement Alcohol and Other Drug Studies	40-41
Associate of Science Degree Alcohol and Other Drug Studies	40-41*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Alcohol and Other Drug Studies (AODS) program prepares students for certification as substance use disorder counselors in the State of California (units may qualify for other state certification or licensing requirements). This program is vocational, academic, and clinical in nature. It trains students in the practice dimensions and core competencies of alcohol and other drug counseling while providing a theoretical foundation in the behavioral sciences and human service professions.

The AODS certificate program includes education in the many complex factors that contribute to addiction and substance abuse (including psychological and sociological factors), training in the evidence-based clinical practices used in day-to-day work as a counselor, and on-the-job experience through a supervised internship at an active treatment facility.

The AODS certificate program at San Diego City College is fully accredited and approved by the State of California's Department of Health Care Services through a contract with the California Association for Alcohol/Drug Educators (CAADE), an organization that accredits substance abuse counselor training programs in higher education.

Career Options

Upon completion of the certificate of achievement or associate degree, students may be eligible for entry level employment as an alcohol and other drug counselor. However, the State of California requires additional credentialing in order to maintain employment in this field. Persons hired as alcohol and other drug counselors have five years to become fully certified and most employers will

want counselors to be certified within a year of being hired. California does not license alcohol and other drug counselors at this time. Certification is accomplished through private credentialing organizations that are nationally approved and approved by the State of California. The Alcohol and Other Drug Studies Program specifically prepares students for application to three certifying organizations: the California Association for Drug/Alcohol Educators' (CAADE) Addiction Counselor Certification Board of California (ACCBC), the California Association of DUI Treatment Programs (CADTP), and the California Consortium of Addiction Programs and Professionals (CCAPP). ACCBC offers certification as a Certified Addiction Treatment Counselor (CATC), CADTP offers certification as a Certified Alcohol and Other Drug Counselor (CAODC), and CCAPP offers certification as a Certified Alcohol and Drug Abuse Counselor (CADC). Each organization offers several levels of certification depending on experience and academic achievement. Students who complete the certificate of achievement in AODS will have met the educational requirements for all three certifying organizations.

Program Learning Outcomes

Students who complete the Alcohol and Other Drug Studies Program will:

- Identify diagnostic criteria, apply assessment skills, and describe scientifically validated models of substance use disorder treatment.
- Identify the behavioral, psychological, physical health, and social effects of psychoactive substances on the person and their significant others.
- Explain the potential for medical and mental health conditions to coexist with substance use disorder.
- Demonstrate an understanding of the laws, regulations, and ethical codes of the substance use disorder treatment profession.
- Practice in an internship the eight addiction counselor practice dimensions: clinical evaluation; treatment planning; referral; service coordination; counseling; client, family, community education; documentation; professional and ethical responsibilities.

Director	Office	Telephone
Wendy Wiehl	MS-534	619-388-3097

Certificate of Achievement: Alcohol and Other Drug Studies

The Certificate of Achievement in Alcohol and Other Drug Studies prepares students for certification as alcohol and other drug counselors in the State of California (units may qualify for other state certification or licensing requirements). The Certificate of Achievement is designed to prepare students for entry level alcohol and other drug counselor employment. Students must complete all required courses within ten years in order to receive the Certificate of Achievement.

Note: The AODS department recommends students take courses in the order listed below:

Courses required for the major:	Units
AODS 150 Introduction to Chemical Dependency	3
AODS 153 Chemical Dependency Family Counseling Techniques	3
AODS 154 Law, Ethics, and Skills in Alcohol and Other Drug Counseling	3
SOCO 101 Principles of Sociology	3
PSYC 101 General Psychology	3
AODS 155 Culturally Informed Practices	3
AODS 156 Case Management in Alcohol and Other Drug Counseling	3
AODS 157 Pharmacology of Psychoactive Drugs	3
AODS 159 Co-Occurring Disorders in Alcohol and Other Drug Counseling	3
AODS 160 Group Dynamics in Alcohol and Other Drug Counseling	3
PSYC 161 Introduction to Counseling	3
AODS 162 Internship Seminar: Alcohol and Other Drug Counseling	3
AODS 164 Internship: Alcohol and Other Drug Counseling	5
or	
AODS 270 ¹ Work Experience in Chemical Dependency	4
Total Units = 40-41	

¹AODS 270 must be substituted for AODS 164 if student has a paid internship.

Associate of Science Degree: Alcohol and Other Drug Studies

The Associate of Science in Alcohol and Other Drug Studies prepares students for certification as alcohol and other drug counselors in the State of California (units may qualify for other state certification or licensing requirements). The Associate of Science degree provides academic preparation for baccalaureate study in addiction, psychology, social work, human services, and related disciplines. Students must complete all required courses within ten years in order to receive the Associate Degree.

Note: The AODS department recommends students take courses in the order listed below:

Courses required for the major:	Units
AODS 150 Introduction to Chemical Dependency	3
AODS 153 Chemical Dependency Family Counseling Techniques	3
AODS 154 Law, Ethics, and Skills in Alcohol and Other Drug Counseling	3
SOCO 101 Principles of Sociology	3
PSYC 101 General Psychology	3
AODS 155 Culturally Informed Practices	3
AODS 156 Case Management in Alcohol and Other Drug Counseling	3
AODS 157 Pharmacology of Psychoactive Drugs	3
AODS 159 Co-Occurring Disorders in Alcohol and Other Drug Counseling	3
AODS 160 Group Dynamics in Alcohol and Other Drug Counseling	3
PSYC 161 Introduction to Counseling	3
AODS 162 Internship Seminar: Alcohol and Other Drug Counseling	3
AODS 164 Internship: Alcohol and Other Drug Counseling	5
or	
AODS 270 ¹ Work Experience in Chemical Dependency	4
Total Units = 40-41	

¹AODS 270 must be substituted for AODS 164 if student has a paid internship.

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Transfer Information

Common university majors related to the field of Alcohol and Other Drug Studies include: Psychology, Human Services, Social Work.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

American Sign Language

Award Type	Units
Certificate of Achievement	
American Sign Language	20
Associate of Arts Degree	
American Sign Language	26*

*and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

The American Sign Language program focuses on beginning to advanced American Sign Language (ASL) skill development. This program encourages student involvement in the social and cultural activities of the Deaf community as it emphasizes student awareness of ASL as a unique language and Deaf culture and history. Students who complete the American Sign Language associate degree may choose to transfer to a four-year institution.

Certificate of Achievement: American Sign Language

The certificate focuses on beginning to advanced American Sign Language (ASL) skill development. Students interested in transferring to a four-year institution, may continue with completing the associate degree.

Courses Required for the Major:	Units
AMSL 120 American Sign Language Level I	5
AMSL 121 American Sign Language Level II	5
AMSL 220 American Sign Language Level III	5

AMSL 221 American Sign Language Level IV	5
Total Units = 20	

Associate of Arts Degree: American Sign Language

The associate degree in American Sign Language requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Courses required for the major:	Units
AMSL 120 American Sign Language Level I	5
AMSL 121 American Sign Language Level II	5
AMSL 220 American Sign Language Level III	5
AMSL 221 American Sign Language Level IV	5
Select two courses from the following:	
AMSL 150 Introduction to Deaf Culture	3
AMSL 155 Implications of Deafness	3
AMSL 214 American Sign Language Fingerspelled Signs	3
AMSL 225 Introduction to Linguistics of American Sign Language	3
Total Units = 26	

Anthropology

Award Type	Units
Certificate of Achievement	
Archaeology	16
Associate of Arts Degree	
Anthropology	18–19*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Associate in Arts for Transfer Degree:	
Anthropology	19–20

Description

Anthropology is a scientific discipline that studies humans and human behavior. The subject is divided into five broad fields: biological anthropology, cultural anthropology, linguistics, archaeology, and applied anthropology. Biological anthropology is concerned with hominin evolution and the biological features of human populations. Cultural anthropology deals with cross-cultural studies of

learned behavior, such as language, kinship, religion, economics, technology, values, and personality. Linguistics is the study of the origin and evolution of languages and how they reflect the behavioral patterns of people. Archaeology is involved in the recovery of material remains of past peoples with the objective of reconstructing the past. Applied Anthropology applies what we have learned from the other four fields to promote change. As both a biological and social science, anthropology seeks to understand and describe humankind.

Program Emphasis

The anthropology program has been developed to provide the student with a broad perspective of human biological and cultural origins and change which prepares the student for transfer to a four-year institution. It also offers a limited course curriculum in archaeology. A certificate of achievement is available for the student who has an interest in the recovery, identification, and analysis of prehistoric and early historic artifacts related to archaeological research projects.

Career Options

Most careers related to anthropology require education beyond the associate degree; however, an understanding of broad anthropological and archaeological concepts provides some preparation for work in museums and local excavations. A partial list of possible career options follows: archaeologist, cultural anthropologist, ethnic relations specialist, ethnologist, exhibit designer, expedition guide, film ethnographer, health researcher, linguist, medical anthropologist, museum curator, biological anthropologist, primatologist, paleoanthropologist, population analyst, public health analyst, social gerontologist, transcultural nurse specialist, travel consultant, urban planner, international business consultant and international development specialist.

Program Learning Outcomes

Students who complete the program will be able to:

- Define Anthropology, identify and discuss its various subfields including: Cultural Anthropology, Biological Anthropology, Comparative Linguistics, Archaeology, and Applied Anthropology.
- Identify and discuss Anthropological methods of inquiry.

- Identify, discuss, compare, contrast, and critically analyze the various theoretical orientations used in the different subfields of Anthropology.
- Discuss and critically evaluate the Anthropological Perspective including its global emphasis and cross-cultural and comparative approach to understanding the various ways in which people organize themselves, meet their various needs, and have adapted to their environments.
- Identify, describe, and discuss different cultural systems ranging from band societies to the state.
- Identify, critically evaluate, and discuss the contributions Anthropology has made to describing and understanding the human condition including human biological and cultural diversity.
- Identify and critically evaluate Anthropology's contributions to other disciplines of study in the Social Sciences, Behavioral Sciences, and the Humanities.

Faculty	Office	Telephone
Tori Randall	MS-537	619-388-3748
George (Tim) Gross	MS-538	619-388-3260

Certificate of Achievement: Archaeology

The certificate recognizes the student's completion of a series of courses that prepare the student for entry-level participation in field archaeological projects and work in an archaeological lab. This program is designed to prepare students for entry-level employment in archaeological field work, laboratory work or museum work.

Courses Required for the Major:		Units
ANTH 103	Introduction to Cultural Anthropology	3
ANTH 107	Introduction to Archaeology	3
ANTH 115	Introduction to Archaeological Field Work	4
ANTH 120	Archaeological Artifact Analysis	3
ANTH 210	Introduction to California Indians	3
Total Units = 16		

Associate of Arts Degree: Anthropology

The Anthropology program has three primary goals. The first is to provide the student with a broad perspective of human biological and cultural origins and change which prepares the student for transfer to a four-year institution for further study. The second goal is to provide courses that may include additional information regarding anthropology that are of general interest to community college students or are applications of anthropological principles. The Anthropology program offers a limited course curriculum in archaeology. A certificate of performance is available for the student who has an interest in the recovery, identification, and analysis of prehistoric and early historic artifacts related to archaeological research projects.

Courses Required for the Major:		Units
ANTH 102	Introduction to Biological Anthropology	3
ANTH 103	Introduction to Cultural Anthropology	3
ANTH 107	Introduction to Archaeology	3

Select 9–10 units from the following

ANTH 104	Laboratory in Biological Anthropology	1
ANTH 110	Anthropology of Magic, Witchcraft, and Religion	3
ANTH 115	Introduction to Archaeological Field Work	4
ANTH 120	Archaeological Artifact Analysis	3
ANTH 130	Bones: Human Osteology	3
ANTH 140	Primatology	3
ANTH 210	Introduction to California Indians	3

Total Units = 18–19

Note: The Anthropology Program recommends that students interested in pursuing Biological Anthropology take ANTH 104.

Transfer Information

Common university majors related to the field of Anthropology include: Anthropology, Archaeology, Biological Anthropology, Global Studies, Conflict Resolution Studies, and Peace Studies.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts

and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Arts in Anthropology for Transfer Degree:

Program Description:

The Associate in Arts in Anthropology for Transfer Degree is intended for students who plan to complete a bachelor's degree in Anthropology or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Award Notes:

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
ANTH 102	Introduction to Biological Anthropology	3
ANTH 103	Introduction to Cultural Anthropology	3
ANTH 104	Laboratory in Biological Anthropology	1
ANTH 107	Introduction to Archaeology	3
ENGL 202	Introduction to Linguistics	3
GISG 104	Geographic Information Science and Spatial Reasoning	3
or		
SOCO 220	Introduction to Research Methods in Sociology	3

Select one course from the following (3-4 units):

ANTH 110	Anthropology of Magic, Witchcraft, and Religion	3
ANTH 115	Introduction to Archaeological Field Work	4
ANTH 120	Archaeological Artifact Analysis	3
ANTH 130	Bones: Human Osteology	3
ANTH 140	Primatology	3
ANTH 210	Introduction to California Indians	3

Total Units = 19–20

Art – Fine Art

Award Type	Units
Certificate of Performance	
Advanced Arts Entrepreneurship	12
Arts Entrepreneurship	6
Certificate of Achievement	
Studio Arts Entrepreneurship	18
Associate of Arts Degree	
Two-Dimensional Art	27*
Three-Dimensional Art	30*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
Art History	18–20
Studio Arts	24

Program Description

The Fine Art major at San Diego City College is one of six options in the Visual and Performing Arts division. The program provides the opportunity for students to develop fundamental skills in art studio and art history for transferring to a four-year institution. The program inspires creative and

technological innovation while preparing students for advanced artwork and pursuing entrepreneurial careers in art. Students learn to think critically, collaborate, research, and express artistic ideas in state-of-the-art facilities. The on-campus City Gallery engages students with contemporary art while broadening their cultural, social, economic, and political perspectives.

Program Learning Outcomes

Students who complete the program will be able to:

- Solve basic problems of visual expression and describe its historical or contemporary context.
- Demonstrate knowledge of specific historical and cultural art styles.
- Produce visual works of art reflecting global awareness, cultural diversity.
- Produce visual works of art in a variety of mediums. Choose the most appropriate materials, tools and techniques to meet artist goals.
- Interpret, evaluate and critiques orally and in writing visual works of art.

Faculty	Office	Telephone
Terri Hughes-Oelrich	AH-315A	619-388-3087
Wayne Hulgin	AH-302B	619-388-3693
Anna Delgado	AH-317C	619-388-3600

Academic Programs

The associate degree in Two- and Three-Dimensional Art requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Certificate of Performance: Advanced Arts Entrepreneurship*

The Certificate of Performance in Fine Art with an advanced arts entrepreneurship emphasis provides students with the skills and knowledge to foster self-employment or a small business. The curriculum is designed to maximize students art experience while preparing students with the understanding of entrepreneurship and small business management with business courses. This program expands student education in entrepreneurship and small business management. The primary aim is to prepare

students to create advanced artwork and pursue a career in art-related fields.

Career Options

Most careers in fine arts require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in fine arts include: art educator, arts administrator, advertising specialist, ceramicist, illustrator, computer publishing, design consulting, display designer, gallery director, graphic artist, muralist, painter, printmaker, jeweler, sculptor, photographer, or public artist.

Courses:		Units
ARTF 206	Art Entrepreneurship	3
BUSE 157	Developing a Plan for the Small Business	3
MARK 100	Principles of Marketing	3
Select three (3) units from the following:		
ARTF 165B	Composition in Painting II	3
ARTF 165C	Composition in Painting III	3
ARTF 170B	Contemporary Crafts II	3
ARTF 175B	Sculpture II	3
ARTF 175C	Sculpture III	3
ARTF 195B	Ceramics II	3
ARTF 195C	Ceramics III	3
ARTF 207A	Industrial and Architectural Ceramic Design I	3
ARTF 207B	Industrial and Architectural Ceramic Design II	3
ARTF 212	Sustainable Art and Design	3
		Total Units = 12

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Arts Entrepreneurship*

The certificate of performance in Fine Art with an arts entrepreneurship emphasis provides students with the skills and knowledge to foster self-employment or a small business. The curriculum is designed to maximize students art experience while providing basic skills required for self-employment and employment in art-related fields. This program expands student education in entrepreneurship and

small business management. The primary aim is to prepare students to create advanced artwork and pursue a career in art-related fields.

Career Options

Most careers in fine arts require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in fine arts include: art educator, arts administrator, advertising specialist, ceramicist, illustrator, computer publishing, design consulting, display designer, gallery director, graphic artist, muralist, painter, printmaker, jeweler, sculptor, photographer or public artist.

Courses:		Units
ARTF 206	Art Entrepreneurship	3
Select three (3) units from the following:		
ARTF 165B	Composition in Painting II	3
ARTF 165C	Composition in Painting III	3
ARTF 170B	Contemporary Crafts II	3
ARTF 175B	Sculpture II	3
ARTF 175C	Sculpture III	3
ARTF 195B	Ceramics II	3
ARTF 195C	Ceramics III	3
ARTF 207A	Industrial and Architectural Ceramic Design I	3
ARTF 207B	Industrial and Architectural Ceramic Design II	3
		Total Units = 6

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Career Options

Most careers in fine arts require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list, but some of the most common career options with a degree in fine arts include: advertising specialist, arts administrator, arts critics, arts dealers, arts educator, arts historians, artists, ceramicist, illustrator, computer publishing, design consulting, display designer, gallery director, graphic artist, jeweler, muralist, painter, photographer, printmaker, public artist, sculptor, or visual information specialist.

Certificate of Achievement: Studio Arts Entrepreneurship

The Certificate of Achievement in Studio Arts Entrepreneurship provides students with the skills and knowledge to foster self-employment or a small business. The curriculum is designed to maximize students' art experience while providing basic skills required for self-employment and employment in art-related fields. This program expands student education in entrepreneurship and small business management. The primary aim is to prepare students to create advanced artwork and pursue a career in art-related fields.

Career Options

Most careers in fine arts require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list, but some of the most common career options with a degree in fine arts include: advertising specialist, arts administrator, arts critics, arts dealers, arts educator, arts historians, artists, ceramicist, illustrator, computer publishing, design consulting, display designer, gallery director, graphic artist, jeweler, muralist, painter, photographer, printmaker, public artist, sculptor, or visual information specialist.

Courses:	Units
ARTF 206 Art Entrepreneurship	3
ARTF 260 Studio Art Studies	3
DSGN 102 Digital Media I	3
PHOT 143 Introduction to Digital Photography	3

Select 6 units from the following courses:

ARTF 165B Composition in Painting II	3
ARTF 165C Composition in Painting III	3
ARTF 170B Contemporary Crafts II	3
ARTF 170C Contemporary Crafts III	3
ARTF 175B Sculpture II	3
ARTF 175C Sculpture III	3
ARTF 195B Ceramics II	3
ARTF 195C Ceramics III	3
ARTF 196 Clay and Glaze Technology	3
ARTF 202A Public Art I	3
ARTF 202B Public Art II	3
ARTF 205A Installation, Performance, and New Genres	3
ARTF 207A Industrial and Architectural Ceramic Design I	3
ARTF 207B Industrial and Architectural Ceramic Design II	3
ARTF 208A Ceramic Production I	3
ARTF 208B Ceramic Production II	3

ARTF 210B Life Drawing II	3
ARTF 210C Life Drawing III	3
ARTF 212 Sustainable Art and Design	3

Total Units = 18

Associate of Arts Degree: Two-Dimensional Art

The Associate of Arts in Two-Dimensional Art focuses on the development of artistic practice through exploration, experimentation, studio work, and study of art history. As students develop ideas and express them in a variety of two-dimensional forms, they examine how their artwork reflects the time and culture within which they are creating it and how their work fits into the history of art and contemporary art practice.

Career Options

Most careers in fine arts require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list, but some of the most common career options with a degree in fine arts include: advertising specialist, arts administrator, arts critics, arts dealers, arts educator, arts historians, artists, ceramicist, illustrator, computer publishing, design consulting, display designer, gallery director, graphic artist, jeweler, muralist, painter, photographer, printmaker, public artist, sculptor, or visual information specialist.

Courses Required for the Major: Units

ARTF 110 Art History: Prehistoric to Gothic	3
ARTF 111 Art History: Renaissance to Modern	3
ARTF 150A Two-Dimensional Design	3
ARTF 151 Three-Dimensional Design	3
ARTF 155A Freehand Drawing I	3
ARTF 155B Freehand Drawing II	3
ARTF 210A Life Drawing I	3

Select six (6) units from the following:

ARTF 104 Artists and Designers Today	3
DSGN 102 Digital Media I	3
ARTF 156A Drawing for Animation	3
ARTF 165A Composition in Painting I	3
ARTF 165B Composition in Painting II	3
ARTF 165C Composition in Painting III	3
ARTF 165D Composition in Painting IV	3
ARTF 198A Introduction to Printmaking I	3
ARTF 205A Installation, Performance, and New Genres	3
ARTF 206 Art Entrepreneurship	3
ARTF 210B Life Drawing II	3
ARTF 210C Life Drawing III	3

ARTF 260	Studio Art Studies	3
		Total Units = 27

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate of Arts Degree: Three-Dimensional Art

The Associate of Arts in Three-Dimensional Art focuses on the development of artistic practice through exploration, experimentation, studio work, and study of art history. As students develop ideas and express them in a variety of three-dimensional forms, they examine how their artwork reflects the time and culture within which they are creating it and how their work fits into the history of art and contemporary art practice.

Career Options

Most careers in fine arts require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in fine arts include: artists, muralists, public artists, craft artists, art critics, art dealers, art educators, art historians, arts administrators, illustrators, design consulting, display designers, gallery directors, painters, and visual information specialists.

Courses Required for the Major:		Units
ARTF 110	Art History: Prehistoric to Gothic	3
ARTF 111	Art History: Renaissance to Modern	3
ARTF 150A	Two-Dimensional Design	3
ARTF 151	Three-Dimensional Design	3
ARTF 155A	Freehand Drawing I	3
ARTF 170A	Contemporary Crafts I	3
ARTF 175A	Sculpture I	3
ARTF 195A	Ceramics I	3

Select six (6 units) from the following:

ARTF 104	Artists and Designers Today	3
ARTF 170B	Contemporary Crafts II	3
ARTF 170C	Contemporary Crafts III	3
ARTF 175B	Sculpture II	3
ARTF 175C	Sculpture III	3
ARTF 179A	Figurative Ceramic Sculpture I	3
ARTF 195B	Ceramics II	3
ARTF 195C	Ceramics III	3
ARTF 196	Clay and Glaze Technology	3
ARTF 197A	Handbuilding Ceramics I	3
ARTF 197B	Handbuilding Ceramics II	3

ARTF 206	Art Entrepreneurship	3
ARTF 207A	Industrial and Architectural Ceramic Design I	3
ARTF 207B	Industrial and Architectural Ceramic Design II	3
ARTF 212	Sustainable Art and Design	3
ARTF 260	Studio Art Studies	3
		Total Units = 30

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate in Arts in Art History for Transfer Degree:

Program Description:

The Associate in Arts in Art History for Transfer Degree is intended for students who plan to complete a bachelor's degree in Art History or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Award Notes:

*Course also fulfills general education requirements for the CSU GE or IGETC pattern.

This course fulfills SDSU lower division preparation for the major in the BA in Art History under the TMC.

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general

education option is most appropriate for their individual educational goals.

* Course also fulfills general education requirements for the CSU GE or IGETC pattern.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Goals:

The Associate in Arts in Art History for Transfer is intended for students who plan to complete a bachelor’s degree in Art History or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: It is recommended for students intending to transfer to San Diego State University (SDSU) BA in Art History should complete the courses marked with a (#). Students intending to transfer into this major at other CSU’s should consult a counselor and visit www.assist.org for guidance on appropriate course work.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Required Courses (9 semester units):

Courses Required for the Major:		Units
ARTF 110	Art History: Prehistoric to Gothic	3
ARTF 111	Art History: Renaissance to Modern	3
ARTF 155A	Freehand Drawing I	3

Select one course (3 semester units) from the following: *(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).*

ARTF 115	African Art	3
ARTF 125	Art History: Arts of the Asian Continent	3

Select one course (3 semester units) if not selected above from the following: *(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).*

ARTF 150A	Two-Dimensional Design	3
ARTF 151	Three-Dimensional Design	3
ARTF 165A	Composition in Painting I	3
ARTF 170A	Contemporary Crafts I	3
ARTF 175A	Sculpture I	3
ARTF 195A	Ceramics I	3
ARTF 210A	Life Drawing I	3

Select one course (3–5 semester units) if not selected above from the following: *(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).*

ARTF 109	Modern Art	3
ARTF 125	Art History: Arts of the Asian Continent	3
ARTF 150A	Two-Dimensional Design	3
ARTF 151	Three-Dimensional Design	3
ARTF 165A	Composition in Painting I	3
ARTF 170A	Contemporary Crafts I	3
ARTF 175A	Sculpture I	3
ARTF 195A	Ceramics I	3
ARTF 210A	Life Drawing I	3
FREN 101	First Course in French	5
FREN 102	Second Course in French	5
FREN 201	Third Course In French	5
FREN 202	Fourth Course in French	5
GERM 101	First Course in German	5
GERM 102	Second Course in German	5

GERM 201	Third Course in German	5
ITAL 101	First Course in Italian	5
ITAL 102	Second Course in Italian	5
ITAL 201	Third Course in Italian	5
SPAN 101	First Course in Spanish	5
SPAN 102	Second Course in Spanish	5
SPAN 201	Third Course in Spanish	5
SPAN 202	Fourth Course in Spanish	5
SPAN 215	Spanish for Spanish Speakers I	5
SPAN 216	Spanish for Spanish Speakers II	5

Total Units = 18–20

Associate in Arts in Studio Arts for Transfer Degree

Program Description:

The Associate in Arts in Studio Arts for Transfer Degree is intended for students who plan to complete a bachelor's degree in Studio Arts or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

Students are required to complete:

A minimum of 18 semester units in the major with a grade of "C" or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable work.

Completion of 60 CSU-transferable units using the California State University-General Education-Breadth pattern (CSU-GE Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern. No more than 60 units are required.

Award Notes:

*Course also fulfills general education requirements for the CSU GE or IGETC pattern.

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

* Course also fulfills general education requirements for the CSU GE or IGETC pattern.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Goals:

The Associate in Arts in Studio Arts for Transfer is intended for students who plan to complete a bachelor's degree in Studio Arts or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult

a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

Students are required to complete:

A minimum of 18 semester units in the major with a grade of "C" or better while maintaining a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable work.

Completion of 60 CSU-transferable units using the California State University-General Education-Breadth pattern (CSU-GE Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern. No more than 60 units are required.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
ARTF 110	Art History: Prehistoric to Gothic	3
ARTF 111	Art History: Renaissance to Modern	3
ARTF 150A	Two-Dimensional Design	3
ARTF 151	Three-Dimensional Design	3
ARTF 155A	Freehand Drawing I	3

Select three courses (9 semester units) from the following: *(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).*

ARTF 155B	Freehand Drawing II	3
ARTF 165A	Composition in Painting I	3
ARTF 170A	Contemporary Crafts I	3
ARTF 175A	Sculpture I	3
ARTF 195A	Ceramics I	3
ARTF 197A	Handbuilding Ceramics I	3
ARTF 210A	Life Drawing I	3

Total Units = 24

Transfer Information

Common university majors related to the field of Art-Fine Art include: Apparel Design and Merchandising, Art, Art Education, Art History, Creative Arts/Studies, Design, Industrial Arts, Interior Design, Multimedia, Photography, Studio Art, Textiles.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Art – Graphic Design

See "Design" on Page 215

Astronomy

Award Type	Units
Associate of Science Degree:	
Astronomy	32*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

Astronomy is the study of the universe. Various branches of astronomy include: cosmology, planetary, geology, space plasma physics, and image analysis, amongst others. Astronomy is focused on understanding the fundamental laws of the universe.

Program Emphasis

The astronomy program serves two goals: 1) To serve as science literacy and general education courses, and 2) to provide a foundation for upper division study in a baccalaureate institution in preparation for transfer.

Career Options

Most careers in Astronomy require education beyond the associate degree and many require a graduate degree. A brief list of career options in Astronomy includes: astronomer, planetarium specialist, aerospace engineer, telescope operator, physicist and physical science instructor.

Program Learning Outcomes

Upon successful completion students will be able to:

- Demonstrate an understanding and appreciation of the scientific method.
- Communicate an understanding of the connections between science and other human activities.
- Examine the universe in a variety of courses.
- Utilize critical thinking skills in a variety of scientific applications.

Faculty	Office	Telephone
Lorenza Levy	S-211K	619-388-3713
Gerardo Scappaticci	S-211E	619-388-3356
Lisa Will	S-211C	619-388-3364

Academic Programs

The associate degree in Astronomy requires completion of the courses listed for each degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate of Science Degree: Astronomy

Courses Required for the Major:	Units
ASTR 101 Descriptive Astronomy	3
ASTR 109 Practice in Observing or	
ASTR 111 Astronomy Laboratory	1
MATH 150 Calculus with Analytic Geometry I	5
MATH 151 Calculus with Analytic Geometry II	4
MATH 252 Calculus with Analytic Geometry III	4
PHYS 195 Mechanics	5
PHYS 196 Electricity and Magnetism	5
PHYS 197 Waves, Optics and Modern Physics	5
Total Units = 32	

Recommended electives: Chemistry 200, 200L.

Note: Only one astronomy lab course (ASTR 109 OR ASTR 111) is required for the major.

Transfer Information

Common university majors related to the field of Astronomy include: Astronomy, Chemistry, Earth Studies and Sciences, Geology, Hydrologic Science,

Meteorology and Oceanography, Physical Sciences, Physics.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Biology

Award Type	Units
Associate of Science Degree:	
Allied Health Track	21*
General Biology Track	23–24*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Science for Transfer Degree:	
Biology	34–38

Description

Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Emphasis

The Biology Program serves three areas of study. First, the program curriculum provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the program offers courses in human anatomy, human physiology, and general microbiology which may be used to satisfy

prerequisites for nursing and other allied health programs. Third, the program provides courses in natural science to fulfill general education requirements.

Program Goals

The primary goal of the Biology Program is to communicate the current state of knowledge and technology to members of the community so that they may better understand how various aspects of the life sciences impact their lives, as well as local and global communities. Program objectives are to foster the scientific curiosity of students and to prepare students to achieve academic and professional success.

Career Options

The following list is a sample of the many career options available for the biology major. A few require an associate degree, most require a baccalaureate degree, and some require a graduate level degree: agricultural consultant, animal health technician, biotechnology technician, biomedical scientist, dentist, environmental consultant, field biologist, forester, horticulturist, high school or college teacher, marine biologist, microbiologist, public health technician, physician, pharmaceutical researcher, research biologist and veterinarian. In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant and optometrist.

Faculty	Office	Telephone
Jennifer Chambers	S-311M	619-388-4415
Sarah Hawkins	S-311O	619-388-3550
Kevin Jagnandan	S-311G	619-388-4413
Gabriela Mansfield	S-311K	619-388-3277
Erin McConnell	S-311C	619-388-4411
Heather McGray	S-311E	619-388-4412
Erin Rempala	S-311O	619-388-3712
Minxiu Wang	S-311S	619-388-3425

Academic Programs

The three associate degrees in biology require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog.

The Associate Degree requires a minimum of 60 units.

Program Learning Outcomes

All Biology students will be able to:

- Apply core biological concepts that service as the foundation for higher-level science courses. These include theories of evolution, natural selection, processes of scientific inquiry, and proper laboratory techniques, among others.
- Evaluate the quality of scientific methodology when it is reported by the popular media.
- Describe the relationship between the processes of science, human culture and the environment.

Student satisfying prerequisites of nursing programs and other allied health fields will also be able to:

- Demonstrate a detailed mastery of human body structure and function, from micro- to macroscopic levels, including its homeostatic states and processes.
- Demonstrate a working knowledge of microbial systems, their role in Nature and their impact on humans.

Associate of Science Degree: Allied Health Track

Consult the Nursing Education faculty (City College) or a counselor to verify current course requirements for associate degree and baccalaureate nursing program preparation.

Courses Required for the Major:		Units
BIOL 107	General Biology – Lecture & Laboratory	4
BIOL 205	General Microbiology	5
BIOL 230	Human Anatomy	4
BIOL 235	Human Physiology	4
CHEM 100	Fundamentals of Chemistry	3
CHEM 100L	Fundamentals of Chemistry Laboratory	1
Total Units = 21		

Recommended Electives: Biology 101, 130, 180; Chemistry 130, 130L.

Associate of Science Degree: General Biology Track

Courses Required for the Major:		Units
BIOL 210A	Introduction to the Biological Sciences I	4
BIOL 210B	Introduction to the Biological Sciences II	4
CHEM 200	General Chemistry I	3
CHEM 200L	General Chemistry I Laboratory	2
CHEM 201	General Chemistry II	3
CHEM 201L	General Chemistry II Laboratory	2
MATH 121	Basic Techniques of Applied Calculus I	3
and		
MATH 122	Basic Techniques of Calculus II	3
or		
MATH 150	Calculus Analytical Geometry I	5
Total Units = 23–24		

Recommended electives: 101, 110, 130, 180, 205, 230, 232, 235, 290.

Transfer Information

Common university majors related to the field of Biology include: Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Botany and Plant Sciences, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Exercise Science, Genetics, Kinesiology, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Nursing, Nutrition and Food Science, Psychobiology, Toxicology, Zoology and Animal Science.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Science in Biology for Transfer Degree:

Program Description

The Associate in Science in Biology for Transfer Degree is intended for students who plan to complete a bachelor's degree in Biology or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes

General Education: In addition to the courses listed below, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.

- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Goals

The purpose of the Associate in Science in Biology for Transfer degree is to offer an organized course of study that will prepare students intending to major in Biology at the California State University (CSU). It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Program Emphasis

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:	Units
BIOL 210A Introduction to the Biological Sciences I	4
BIOL 210B Introduction to the Biological Sciences II	4
CHEM 200 General Chemistry I – Lecture	3
CHEM 200L General Chemistry I – Laboratory	2
CHEM 201 General Chemistry II – Lecture	3
CHEM 201L General Chemistry II – Laboratory	2
MATH 121 Basic Techniques of Applied Calculus I	3
or	
MATH 150 Calculus with Analytic Geometry I	5
PHYS 125 General Physics	5
and	
PHYS 126 General Physics II	5
or	
PHYS 195 Mechanics	5
and	

PHYS 196 Electricity and Magnetism 5

Select 3-5 Units from the following:

CHEM 231 Organic Chemistry I – Lecture 3
and

CHEM 231L Organic Chemistry I – Laboratory 2

MATH 122 Basic Techniques of Calculus II 3

MATH 151 Calculus with Analytic Geometry II 4

Total Units = 34–38

Black Studies

Award Type	Units
Associate of Arts Degree	
Black Studies	21*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Black Studies program at City College provides an interdisciplinary and systemic approach to the historical and contemporary study of African people in Africa and in the Americas. The program is designed to provide enrichment in the social sciences and humanities by giving students in these areas the opportunity to link the tools of formal analysis to a specific cultural area in the African experience. The student's career and future alternatives may be increased by adding a specialized dimension at the undergraduate level. Students preparing for transfer to a four-year university may major in African Studies or humanities, law, social work, or public administration. This will enhance their opportunities in local, national and international organizations, both public and private, through participation in the program.

Program Emphasis

Black Studies courses are taught in English. The curriculum includes transfer courses which help to meet District and baccalaureate general education and multicultural requirements. The program offers courses in African history, as well as art, economics, United States history, literature, music, Psychology, Sociology and politics from a Black perspective.

Career Options

Most careers related to Black Studies require education beyond the associate degree. A list of some sample careers include: social scientist, counselor, international business person, historian, social worker, teacher and public administrator.

Program Learning Outcomes

Upon successful completion the student will acquire the skills and knowledge for preparation in:

- Evaluating the aesthetics, social, and political significance of Black artistic, musical and literary expression from its African origins to the present.
- Analyzing the underlying causes of such social problems as racism and sexism and class conflict.
- Critically analyzing current social policies and their historical origins, both on the local and national levels, aimed at addressing current social problems that most affect African-Americans.
- Evaluating the role of active citizens who will be engaged in the global community.

Faculty	Office	Telephone
Alazar Tesfamariam	MS-440G	619-388-3366
Darius Spearman	MS-440L	619-388-3187

Academic Programs

The associate degree in Black Studies requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate of Arts Degree: Black Studies

Courses Required for the Major:	Units
BLAS 100 Introduction to Black Studies	3
BLAS 104 Black Psychology or	
BLAS 130 The Black Family	3
BLAS 110 African American Art or	
BLAS 120 Black Music	3
BLAS 115 Sociology from a Black Perspective or	
BLAS 116 Contemporary Social Problems from a Black Perspective or	
BLAS 135 Introduction to Black Politics	3
BLAS 140A African American History to Reconstruction	
or	

BLAS 140B African American History since Reconstruction to the Present	3
BLAS 145A Introduction to African History or	
BLAS 145B Introduction to African History	3
BLAS 150 Black Women in Literature, Film and the Media or	
BLAS 155 African American Literature	3
Total Units = 21	

Recommended Electives: Black Studies 165, 290, 296.

Transfer Information

Common university majors related to the field of Black Studies include: Africana Studies, Afro-American Studies, Black Studies, Ethnic Studies, Liberal Studies.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Business Studies

Award Type	Units
Certificate of Performance	
Business Operations–Cannabis Dispensary	11
Customer Relationship Management	6
Fundamentals of Business	6
Fundamentals of Marketing	6
Management and Team Building	9
Starting and Managing a Small Business	9
Writing and Computational Skills for Business	6
Certificate of Achievement:	
Small Business Management	19
Associate of Science Degree:	
Small Business Management	19*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Science for Transfer Degree:	
Business Administration 2.0	26–28

Description

The Business Studies Department at San Diego City College offers a wide variety of programs for both transfer and career-focused students. Programs are designed to provide students with the education they need to launch their own business or join an established business in an entry-level position. Completion of these programs equip students with strategies, plans, procedures, and policies that guide a business and prepares students to work in a variety of positions in retail, corporate establishments, small businesses, human resources, and other business settings.

Career Options

Most careers related to the field of business studies require education beyond the associate degree and some may require a graduate degree. However, earning a certificate or an associate degree in business studies can boost employability in many fields offering jobs such as: marketing assistant, recruiter, bank teller, staff accountant, sales associate or representative, customer service representative, product demonstrator, fundraiser, data entry associate, human resources specialist.

Program Learning Outcomes

Students who complete the program will be able to:

- Develop and apply appropriate communication skills across various business settings.
- Analyze business scenarios to formulate and implement plans of action.
- Leverage technology to manage and use information for decision making.

Faculty	Office	Telephone
Shana Carr	BT-210F	619-388-3110
Tania Mustafa	BT-314C	619-388-3573
Theresa Savarese	BT-210A	619-388-3367

Academic Programs

The associate degree in Business Studies requires completion of the courses listed in each degree emphasis. Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of the catalog.

The associate degree requires a minimum of 60 units.

Certificate of Performance: Business Operations–Cannabis Dispensary*

The Certificate of Performance in Business Operations-Cannabis Dispensary is designed for students interested in the fundamental practices of managing a cannabis dispensary. Emphasis is placed on the specific operational skills needed for this industry, including management, legal compliance, accounting, and security.

Courses:	Units
ACCT 128A Recordkeeping	1.5
ACCT 128B Payroll	1.5
BUSE 145 Business of Cannabis	2
BUSE 150 Human Relations in Business	3
BUSE 155 Small Business Management	3
Total Units = 11	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Customer Relationship Management*

This program provides an in-depth exploration of customer relationship management. Students study customer service and professional selling practices used in customer relationship management. Emphasis is placed on careers in customer service and sales fields.

Award Notes

The goal of this program is to introduce students to customer service techniques, client communication processes, and the stages of professional selling to increase their opportunities for employment in the customer relationship management sector. Students who successfully complete this Certificate of Performance will be able to practice and enhance their customer listening and communication skills, customer service and problem solving, and sales presentation knowledge. Program SLO: Analyze, organize, and compose various types of written and oral business communications.

This is a department award in recognition of information on the transcript and does not imply meeting a graduation requirement.

Career Options

Upon successful completion of this certificate, students will have career options as:

- Customer Service Representatives
- Client Service Representatives
- Product Demonstrators
- Reception, Front Office Worker
- Sales Associates

Courses:	Units
BUSE 102 Introduction to Customer Service	3
MARK 105 Professional Selling	3
Total Units = 6	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Fundamentals of Business*

The Certificate of Performance in Fundamentals of Business is designed to provide students with the skills necessary for various business careers. Emphasis is placed on building fundamental competencies for jobs requiring skills in entry-level business operation and professional communication. Coursework provides students a comprehensive introduction to business-focused careers and an avenue to meet the core requirements for business majors at universities.

Courses:	Units
BUSE 119 Business Communications	3
BUSE 140 Business Law and the Legal Environment	3
Total Units = 6	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Fundamentals of Marketing*

The Certificate of Performance in Fundamentals of Marketing is designed to provide students with the skills necessary for marketing careers. Emphasis is placed on building fundamental competencies for jobs requiring skills in developing and designing marketing and promotional plans and forecasts. Coursework provides students a comprehensive introduction to the field of marketing and an avenue to meet the core requirements for marketing majors at universities.

Career Options

Education and degrees beyond the associate degree may be needed to qualify for some of the careers in marketing, such as: first-line supervisor of retail sales worker, marketing associate, social media marketer, marketing manager, online merchant, green marketer, assistant sales manager, retail sales worker,

advertising sales agent, advertising and promotions manager, commercial and industrial designer, marketing coordinator, marketing consultant.

Courses:	Units
MARK 100 Principles of Marketing *Active*	3

Complete three (3) units from the following:

MARK 105 Professional Selling	3
MARK 130 Advertising Principles	3

Total Units = 6

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Management and Team Building*

The Certificate of Performance in Management and Team Building prepares individuals for a variety of employment opportunities in business. Emphasis is placed on managing a small business, leadership, communication, conflict resolution, and building teamwork dynamics. This certificate is designed for individuals who currently own, operate, or work for a business and want to strengthen their business skills.

Courses:	Units
BUSE 092 Introduction to Business Communication	3
or	
BUSE 119 Business Communications	3
BUSE 150 Human Relations in Business	3
BUSE 155 Small Business Management	3

Total Units = 9

Note: The Business Department recommends that students planning to transfer completes BUSE 119 instead of BUSE 92.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Starting and Managing a Small Business*

The Certificate of Performance in Starting and Managing a Small Business provides students with the skills and knowledge required to start and manage a small business of their own or as an employee of a start-up company.

Program Learning Outcomes

Students who complete the certificate will be able to:

- Apply human resource management techniques, marketing for a small business, and knowledge of current legal issues to successfully own or operate a small business.
- Develop a business plan for a small business.
- Develop marketing strategies including product planning, development, pricing, distribution, and promotion necessary to operate a small business.

Courses:	Units
BUSE 155 Small Business Management	3
BUSE 157 Developing a Plan for the Small Business	3
MARK 100 Principles of Marketing	3

Total Units = 9

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Writing and Computational Skills for Business*

The Certificate of Performance in Writing and Computational Skills for Business is designed to provide students with the fundamental computational and writing skills required in an office environment.

Program Learning Outcomes

Students who complete the certificate will be able to:

- Analyze, organize, and compose various types of written and oral business communications.

- Learn basic mathematics and the mathematics used in business.

Courses:		Units
BUSE 92	Introduction to Business Communication or	
BUSE 119	Business Communications	3
BUSE 101	Business Mathematics	3
		Total Units = 6

Note: The Business Department recommends that students planning to transfer select BUSE 119 instead of BUSE 92.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Small Business Management

The Certificate of Achievement in Small Business Management is designed for individuals planning to start, operate, or work in a small business. Students develop a strong foundation for business success with a focus on management processes in planning, organizing, directing, and controlling a business across diverse settings. The program includes essential skills in key areas of entrepreneurial interest as well as offers students hands-on experience. The program emphasis is placed on starting and managing a small business focusing on day-to-day decision making in key areas, such as management, marketing, finance, and communication. Students who successfully complete the award are prepared to start and/or manage a business, prepare students currently working in a business for advancement into management positions, or prepare students interested in pursuing an associate degree in small business management.

Career Options

Most careers related to the field of business studies require education beyond the associate degree and some may require a graduate degree. However, earning a certificate or an associate degree in business studies can boost employability in many fields offering jobs such as: marketing assistant, recruiter, bank teller, staff accountant, sales associate or representative, customer service representative,

product demonstrator, fundraiser, data entry associate, human resources specialist.

Courses Required for the Major		Units
BUSE 92	Introduction to Business Communication or	
BUSE 119	Business Communications	3
BUSE 100	Introduction to Business	3
BUSE 102	Introduction to Customer Service	3
BUSE 155	Small Business Management	3
BUSE 157	Developing a Plan for the Small Business	3
MARK 105	Professional Selling	3
		Total Units = 18

Note: The Business Department recommends that students planning to transfer select BUSE 119 instead of BUSE 92.

Associate of Science Degree: Small Business Management

The Associate of Science Degree in Small Business Management is designed for individuals planning to start, operate, or work in a small business. Students develop a strong foundation for business success with a focus on management processes in planning, organizing, directing, and controlling a business across diverse settings. The program includes essential skills in key areas of entrepreneurial interest as well as offers students hands-on experience managing a business. The program emphasis is placed on starting and managing a business focusing on day-to-day decision making in key areas, such as management, marketing, finance, and communication. Students who successfully complete the award are prepared to start and/or manage a business as well as prepare students currently working in a business for advancement into management positions.

Career Options

Most careers related to the field of business studies require education beyond the associate degree and some may require a graduate degree. However, earning a certificate or an associate degree in business studies can boost employability in many fields offering jobs such as: marketing assistant, recruiter, bank teller, staff accountant, sales associate or representative, customer service representative, product demonstrator, fundraiser, data entry associate, human resources specialist.

Courses Required for the Major		Units
ACCT 128A	Recordkeeping	1.5
ACCT 128B	Payroll	1.5
BUSE 92	Introduction to Business Communication	3
or		
BUSE 119	Business Communications	3
BUSE 155	Small Business Management	3
BUSE 270	Business Internship / Work Experience	1

Complete 9 units from the following:

BUSE 102	Introduction to Customer Service	3
BUSE 150	Human Relations in Business	3
BUSE 157	Developing a Plan for the Small Business	3
MARK 100	Principles of Marketing	3
MARK 105	Professional Selling	3
MARK 130	Advertising Principles	3

Total Units = 19

The Business Department recommends that students planning to transfer select BUSE 119 instead of BUSE 92.

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of the catalog. Students who plan to transfer to a four-year college or university should select the Business Studies San Diego State University Transfer option. **The associate degree requires a minimum of 60 units.**

Associate in Science in Business Administration 2.0 for Transfer Degree:

Program Description:

The Associate in Science in Business Administration 2.0 for Transfer Degree is intended for students who plan to complete a bachelor's degree in Business Administration or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

Note: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

- General Education: In addition to the courses listed above, students must complete one of the following general education options:
- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.
- It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Courses Required for the Major:		Units
BUSE 119	Business Communications	3
BUSE 140	Business Law and the Legal Environment	3
ACCT 116A	Financial Accounting	4
ACCT 116B	Managerial Accounting	4
ECON 120	Principles of Macroeconomics	3

ECON 121	Principles of Microeconomics	3
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Select one of the following statistics courses:

BUSE 115	Statistics for Business	3
MATH 119	Elementary Statistics	3

Select one of the following calculus courses:

MATH 121	Basic Techniques of Applied Calculus I	3
MATH 150	Calculus with Analytic Geometry I	5

Total Units = 26-28

Recommended electives: Computer and Information Sciences 181.

Note: CISC 181 is an additional major preparation course for many CSU campuses.

Electives as needed to meet maximum of 60 units required for the degree.

Chemistry

Award Type	Units
Associate of Science Degree: Chemistry	39*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

Upon completion of the required courses in chemistry and other requirements for graduation an Associate of Science in Chemistry shall be granted. The Associate of Science in Chemistry is intended for students who plan to complete a bachelor's degree in chemistry or a related major in a four-year university system.

Program Emphasis

The chemistry program permits students to fulfill the lower division chemistry courses required for transfer to four-year institutions as well as to acquire the necessary skills and preparation for employment in chemistry and other related fields.

Career Options

Most careers in chemistry require education beyond the associate degree and many require a graduate degree. A brief list of career options in chemistry includes: biophysicist, biochemist, chemist, earth scientist, environmentalist, chemical engineer, astrochemist, nurse, physician's assistant, chemical

technician, sales representative, laboratory specialist, and pharmacist.

Program Learning Outcomes

Upon successful completion students will be able to:

- Demonstrate an understanding safe handling of chemicals and a respect for chemicals, their properties, and their effect on the environment.
- Demonstrate an awareness of the ways in which different aspects of nature (e.g., our local environment on Earth, the inner workings of the human body, etc.) can be known through and are connected by chemistry.
- Demonstrate and understanding of how chemistry is the study of matter and its changes.
- Demonstrate proficiency in a number of techniques and analyses employed in the chemistry laboratory.

Faculty	Office	Telephone
James Covalt	S-211A	619-388-3355
M. Shane Haggard	S-211I	619-388-3742
Robert Kojima	S-211B	619-388-4419

Academic Programs

The associate degree in chemistry requires completing the courses listed. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate of Science Degree: Chemistry

The Associate of Science Degree in Chemistry certifies that the student has emphasized the theory and practice of chemistry and has met the preparation for the major in chemistry.

Courses Required for the Major:	Units
CHEM 200 General Chemistry I - Lecture	3
CHEM 200L General Chemistry I - Laboratory	2
CHEM 201 General Chemistry II - Lecture	3
CHEM 201L General Chemistry II - Laboratory	2
CHEM 231 Organic Chemistry I - Lecture	3
CHEM 231L Organic Chemistry I - Laboratory	2
MATH 150 Calculus with Analytic Geometry I	5
MATH 151 Calculus with Analytic Geometry II	4
PHYS 195 Mechanics	5

PHYS 196	Electricity and Magnetism	5
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Complete a minimum of 5 units from the following:

CHEM 233	Organic Chemistry II - Lecture	3
CHEM 233L	Organic Chemistry II - Laboratory	2
CHEM 251	Quantitative Analytical Chemistry	5
MATH 252	Calculus with Analytic Geometry III	4

Total Units = 39

Transfer Information

Common university majors related to the field of Chemistry include: Chemical Engineering, Chemical Physics, Chemistry, Environmental Chemistry, Physical Sciences.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Chicana and Chicano Studies

Award Type	Units
Associate of Arts Degree: Chicana and Chicano Studies	18*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Department of Chicana and Chicano Studies offers a dynamic, innovative program that emphasizes an interdisciplinary and comparative approach to understanding the historical experiences, contemporary social status, challenges, and accomplishments of Mexican, Mexican American, and Latino populations in the United States. Critical thinking and effective oral

and written communication skills are integrated across the curriculum, which incorporates the arts and literature, cultural studies, history, the social sciences, policy studies, service learning, and active participation for social justice.

The department emphasizes the study of the international border between Mexico and the United States. Due to its geographic location, the department also offers a focus on the relationship between the communities of southern California and Baja California.

Career Options

As a multidisciplinary and interdisciplinary field, Chicana/o Studies contributes to all fields in the humanities and social sciences. The curriculum prepares students at the undergraduate level for a multitude of career options. Students earning a degree in Chicana and Chicano Studies may pursue careers in areas such as education, humanities, history, anthropology, ethnology, sociology, psychology, social sciences, political sciences, law, social work, business, the arts, and public administration.

Program Learning Outcomes

Upon active engagement in course activities and processes the successful student will be able to:

- Attend and analyze educational, cultural, or political activities related to the Chicano/a Latino/a community's social issues.
- Express in a written, oral or artistic way the significance of the Chicana/o and Mexican experience.
- Express in a written, oral or artistic way some of the major obstacles that the Indigenous cultures of Mexico have faced since having contact with European cultures.
- Express in a written, oral or artistic way some of the contributions that women have made to the development of the Mexican and Mexican-American experience.

Faculty	Office	Telephone
Justin Akers Chacón	MS-440K	619-388-3181
Velma V. Calvario	MS-433	619-388-3650
Octavio Garcia	MS-440M	619-388-3634
America Martínez	MS-434	619-388-3238

Academic Programs

The associate degree in Chicana and Chicano Studies requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: Chicana and Chicano Studies

The Associate of Arts in Chicana and Chicano Studies provides a foundational coursework that emphasizes an understanding of history, culture, identity, literature, the arts, institutions, and ideas in addition to preparing students with the critical thinking and analytical skills required in the real world. Chicana and Chicano Studies prepares students to engage important questions, political issues, and institutions as scholars, activists, and civic participants, while also equipping them to transfer to the baccalaureate level.

Courses Required for the Major:		Units
CHIC 110A	Introduction to Chicana and Chicano Studies	3
CHIC 141A	United States History from a Chicano Perspective	3
CHIC 141B	United States History from a Chicano Perspective	3
CHIC 170	La Chicana	3

Select six units from the following courses:

CHIC 110B	Introduction to Chicana and Chicano Studies	3
CHIC 130	Mexican Literature in Translation	3
CHIC 135	Chicana/o Literature	3
CHIC 138	Literature of La Raza in Latin America in Translation	3
CHIC 140	Chicana/o Sociology	3
CHIC 150	History of Mexico	3
CHIC 190	Chicano Images in Film	3
CHIC 201	The Indigenous Tradition of Mexico and Ancient Mesoamerica	3
CHIC 210	Chicano Culture	3
CHIC 230	Chicano Art	3
CHIC 250	Introduction to Chicana/o Dramatic Art	3

Total Units = 18

Transfer Information

Common university majors related to the field of Chicana and Chicano Studies include: Chicana

and Chicano Studies, Ethnic Studies, Latin American Studies, Mexican-American Studies, Raza Studies.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Child Development

Award Type	Units
Certificate of Achievement:	
Child Development: Associate Teacher	17
Child Development: Master Teacher	28–31
Child Development: Teacher	26–27
Associate of Science Degree:	
Early Care and Education	30–33*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

Child Development offers programs for career and transfer students. Certificates of Performance, Certificates of Achievement and Associate Degree programs are available to students interested in a range of child development opportunities and in meeting the requirements for the State of California Child Development Permits and the California State Department of Social Services, Title 22, Community Care Licensing.

The Child Development program offers course work, training and supervised practicum experiences to meet state licensing requirements for working in centers, schools, child care homes and service related agencies. The skills and knowledge gained in beginning courses provide the framework and foundation for more specialized courses.

Program Learning Outcomes

Students who complete the program will be able to:

- Interpret the processes of child growth and development.
- Examine practices that respect and support inclusion.
- Plan and demonstrate curriculum based on developmentally appropriate practices.
- Model ethical practices with children, families, colleagues and communities as stated in the NAEYC Code of Ethical Conduct.

Faculty	Office	Telephone
Denise Blaha	T-323E	619-388-4003
Rebecca Collins	T-323A	619-388-3579

Certificate of Achievement: Child Development: Associate Teacher

The Certificate of Achievement in Child Development: Associate Teacher prepares students to provide developmentally appropriate curriculum and environments in early care and education programs and to supervise Assistant Teachers.

Students are introduced to early education philosophies and strategies that support their understanding and application of developmentally appropriate practices for working with young children and their families in a diverse society. Emphasis is placed on the understanding of growth and development, social emotional needs, positive guidance techniques, intentional design of curriculum, and healthy and safe environments. Hands on practical experiences in the campus child development center provides opportunities for students to apply their learning with the support and supervision of child development faculty and staff.

The Certificate of Achievement in Child Development: Associate Teacher partially fulfills the State of California matrix requirements for the Associate Teacher permit. For more information on permit requirements and application, visit www.childdevelopment.org.

Goals

Students who successfully complete the Associate Teacher Certificate of Achievement will:

- Create and implement developmentally appropriate curriculum;
- Provide safe and healthy environments and positive guidance;
- Facilitate conflict resolution skills among children;
- Identify community resources to support healthy families in a diverse society;
- Identify and apply theories of child growth and development in a practicum setting.

Career Options

Students who successfully complete the Child Development: Associate Teacher Certificate of Achievement will meet the educational requirements for the State of California Child Development Associate Teacher Permit, which authorizes them to teach and supervise Assistant Teachers in private preschools and state and federally funded programs. Students will be prepared for employment as child care workers, teacher assistants, preschool teachers, and education administrators.

Courses Required for the Major:		Units
CHIL 100	Principles and Practices of Early Childhood Education	3
CHIL 101	Human Growth and Development	3
CHIL 141	The Child, Family and Community	3
CHIL 180	Nutrition, Health and Safety for Children	3

Complete three (3) units from the following:

CHIL 133	Curriculum: Language, Literacy, and Art	3
CHIL 135	Curriculum: Science, Math, and Music and Movement	3

Complete a minimum of two (2) units from the following:

CHIL 160	Observation and Assessment of Children	2
CHIL 270	Work Experience	1-4
CHIL 291A	Child Development Center Practicum	1
CHIL 291B	Child Development Center Practicum	1
CHIL 291C	Child Development Center Practicum	1
CHIL 291D	Child Development Center Practicum	1

Total Units = 17

Certificate of Achievement Child Development: Master Teacher

The Certificate of Achievement in Child Development: Master Teacher prepares students

to provide service in the care, development, and instruction of children in a child care and development program, and to supervise Teachers, Associate Teachers, and Assistant. Students who complete the Certificate of Achievement in Child Development: Master Teacher will be prepared to serve as a coordinator of curriculum and staff development in a child care and development program.

Students are introduced to early education philosophies and strategies that support their understanding and application of developmentally appropriate practices for working with young children and their families in a diverse society. Emphasis is placed on the understanding of growth and development, social emotional needs, positive guidance techniques, and intentional design of curriculum experiences and healthy and safe environments. Hands on practical experiences in the campus child development center provides opportunities for students to apply their learning with the support and supervision of child development faculty and staff.

The Certificate of Achievement in Child Development: Master Teacher partially fulfills the State of California matrix requirements for the Master Teacher permit. For more information on permit requirements and application, visit www.childdevelopment.org.

Career Options

Students who successfully complete the Child Development: Master Teacher Certificate of Achievement will meet the educational requirements for the State of California Child Development Associate Teacher permit, which authorizes them to teach and supervise Teachers, Associate Teachers, and Assistants in private preschools and state and federally funded programs. Students will be prepared for employment as child care workers, teacher assistants, preschool teachers, and education administrators.

Courses Required for the Major:		Units
CHIL 100	Principles and Practices of Early Childhood Education	3
CHIL 101	Human Growth and Development	3
CHIL 133	Curriculum: Language, Literacy, and Art	3
CHIL 135	Curriculum: Science, Math, and Music and Movement	3
CHIL 141	The Child, Family and Community	3

CHIL 180	Nutrition, Health and Safety for Children	3
CHIL 215	Adult Supervision and Mentoring in Early Childhood Settings	3
CHIL 275	Supervised Field Study	1-3

Select six to seven (6-7) units from one of the following specializations:

Family life

CHIL 160	Observation and Assessment of Children	2
CHIL 161	Observations and Issues in Child Development	2
CHIL 188	Violence in the Lives of Children and Families	3

Universal design for education

CHIL 160	Observation and Assessment of Children	2
CHIL 166	Curriculum for Diverse Learners	3
CHIL 280	Environmental Rating Scale	1

Infant/toddler

CHIL 175	Infant-Toddler Growth and Development	3
CHIL 176	Principles of Infant-Toddler Caregiving	3

School age

EDUC 200	Teaching as a Profession	2
and		
EDUC 203	Field Experience for Prospective Teachers	1
MUSI 110	Music for Elementary School Teachers	3
MATH 210A	Concepts of Elementary School Mathematics I	3
MATH 210B	Concepts of Elementary School Mathematics II	3
MATH 212	Children's Mathematical Thinking	1
EXSC 240	Physical Education in the Elementary Schools	3

Total Units = 28-31

Certificate of Achievement: Child Development: Teacher

The Child Development: Teacher Certificate of Achievement prepares students to plan and implement developmentally appropriate curriculum for early childhood education programs and to supervise Assistant and Associate Teachers in the classroom.

Career Options

Students who successfully complete the Child Development: Teacher Certificate of Achievement

and the required general education and teaching experience meet the educational requirements for the State of California Child Development Teacher Permit, which authorizes them to teach and supervise Assistant and Associate Teachers in private preschools and state and federally funded programs.

Courses Required for the Major: Units

CHIL 100	Principles and Practices of Early Childhood Education	3
CHIL 101	Human Growth and Development	3
CHIL 133	Curriculum: Language, Literacy, and Art	3
CHIL 135	Curriculum: Science, Math, and Music and Movement	3
CHIL 141	The Child, Family and Community	3
CHIL 166	Curriculum for Diverse Learners	3
CHIL 175	Infant-Toddler Growth and Development	3
CHIL 180	Nutrition, Health and Safety for Children	3

Select one (1) course from the following:

CHIL 160	Observation and Assessment of Children	2
CHIL 161	Observations and Issues in Child Development	2
CHIL 162	Positive Child Guidance	3

Total Units = 26–27

Associate of Science Degree: Early Care and Education

The Early Care and Education program includes course work, training, and supervised practicum experiences to meet state licensing requirements for working in centers, schools, child care homes, and service related agencies. Emphasis is placed on current best practices and tools utilized in the field, inquiry, and reflective practice. The skills and knowledge gained in beginning courses provide the framework and foundation for more specialized courses.

The Associate of Science degree in Early Care and Education prepares students for a range of opportunities in the child development and education fields. Course work, training, and supervised practicum experiences provide the foundational knowledge and skills necessary to be successful in the workforce and assist students in expediting the process of meeting requirements for the State of California Child Development Permits

and California State Department of Social Services, Title 22, Community Care Licensing.

Career Options

Some careers in Early Care and Education require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in Early Care and Education include: teacher, master teacher, director, and site supervisory positions.

Courses Required for the Major Units

CHIL 100	Principles and Practices of Early Childhood Education	3
CHIL 101	Human Growth and Development	3
CHIL 133	Curriculum: Language, Literacy, and Art	3
CHIL 135	Curriculum: Science, Math, and Music and Movement	3
CHIL 141	The Child, Family and Community	3
CHIL 160	Observation and Assessment of Children	2
CHIL 166	Curriculum for Diverse Learners	3
CHIL 180	Nutrition, Health and Safety for Children	3
CHIL 151	Program Planning	3
CHIL 275	Supervised Field Study	1–3
or		
CHIL 270	Work Experience	1–4

Select three (3) units from the following:

CHIL 161	Observations and Issues in Child Development	2
CHIL 291A	Child Development Center Practicum	1
CHIL 291B	Child Development Center Practicum	1
CHIL 291C	Child Development Center Practicum	1
CHIL 291D	Child Development Center Practicum	1

Total Units = 30–33

Transfer Information

Common university majors related to the field of Child Development include: Child Development, Family and Consumer Studies and Sciences, Gerontology, Human Development, and Liberal Studies.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor’s degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also

earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Communication Studies

Award Type	Units
Certificate of Performance:	
Communication Studies	9
Communication Studies: Business	9
Communication Studies: Health Communication	9
Communication Studies: Voice and Performance	9
Associate of Arts Degree:	
Communication Studies	18*
Associate in Arts for Transfer Degree:	
Communication Studies 2.0	18

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Communication Studies program is committed to providing students with the theoretical and practical tools required for effective communication in fulfilling human needs and enhancing relationships in face-to-face, virtual, and cultural environments. Emphasis is placed on proficiency in public speaking, interpersonal communication, intercultural communication, voice and articulation, small group communication, and argumentation.

The Communication Studies program provides students the opportunity to gain effective communication skills which are essential and highly demanded in educational, professional, and social settings. Through critical thinking, observation, and performance, students recognize the importance of messages in an interconnected multicultural community. The Associate Degree or Certificate of Performance in Communication Studies offer students enhancement of self-development and foundational tools for relational success.

Program Emphasis

The Communication Studies program emphasizes proficiency in public speaking, interpersonal communication, intercultural communication, voice and articulation, small group communication, and argumentation.

Career Options

The career opportunities related to Communication Studies are vast and usually require associate or advanced degrees. Some communication career fields include: advertising and public relations, community service, counseling, education, human resources, journalism, management, marketing, performing arts, politics, film, and media production.

Program Learning Outcomes

Upon successful completion of the Communication Studies program the student should be able to:

- Evaluate the speaker's backgrounds, motives and attitudes.
- Analyze the audience's backgrounds, motives and attitudes.
- Design effective communication in order to facilitate understanding and cooperation.
- Develop effective verbal and presentational skills for a variety of communication situations.
- Research, organize, and present a developed viewpoint.

Faculty	Office	Telephone
Erin Engstrom	AH-513C	619-388-3183
Deanna Shelton	AH-511C	619-388-3182
María-José Zeledón-Pérez	AH-511D	619-388-3598

Academic Programs

The Communication Studies Certificate of Performance and the associate degree in Communication Studies require completion of courses listed below.

Certificate of Performance: Communication Studies*

This award is for students who have demonstrated a competence in Communication Studies by taking classes to enhance their communication skills. These skills will benefit them in a variety of fields related

to Communication Studies (advertising, public relations, community service, counseling, education, human resources, journalism, management, marketing, performing arts, politics, and radio/television/film) as well as degrees and careers outside of Communication Studies where critical thinking, research, performance, and presentation are essential elements.

Note: Students should complete 9 units from the following:

Courses:	Units
COMS 101 Voice and Articulation	3
COMS 103 Oral Communication	3
COMS 104 Advanced Public Communication	3
COMS 111 Oral Interpretation	3
COMS 135 Interpersonal Communication	3
COMS 160 Argumentation and Critical Thinking	3
COMS 170 Small Group Communication	3
COMS 180 Intercultural Communication	3
Total Units = 9	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Communication Studies: Business*

This award is for students who have demonstrated a competence in Communication Studies by taking classes to enhance their communication skills, specifically in the area of business. These skills will benefit them in a variety of fields related to Communication Studies (advertising, public relations, community service, marketing, performing arts, politics, and radio/television/film) as well as degrees and careers outside of Communication Studies because communication is an essential element to any business.

Courses:	Units
BUSE 119 Business Communications	3

Select six (6) units from the following:

COMS 103 Oral Communication	3
COMS 170 Small Group Communication	3
COMS 180 Intercultural Communication	3

Total Units = 9

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Communication Studies: Health Communication*

This award is for students who have demonstrated a competence in Communication Studies by taking classes to enhance their communication skills, specifically in the area of health communication. These skills will benefit them in a variety of fields related to Communication Studies (advertising, public relations, community service, counseling, education, human resources, journalism, management, marketing, performing arts, politics, and radio/television/film) and Health Communication (careers involving health-related and care-related messages, the goals and strategies of health care promotion, doctor-patient communication, health communication campaigns, communication in health risk and crisis, and other topics in various contexts, and the communication surrounding wellness, illness, and health care in personal and professional relationships).

Courses:	Units
HEAL 101 Health and Lifestyle	3

Select six (6) units from the following:

COMS 103 Oral Communication	3
COMS 104 Advanced Public Communication	3
COMS 135 Interpersonal Communication	3
COMS 180 Intercultural Communication	3

Total Units = 9

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Communication Studies: Voice and Performance*

The Certificate of Performance in Communication Studies: Voice and Performance is for students

who have demonstrated a competence in communication studies by taking classes to enhance their communication skills, specifically in the area of voice and performance. These skills will benefit them in a variety of fields related to communication studies (advertising, public relations, community service, marketing, performing arts, politics, film, journalism, and media production) as well as degrees and careers outside of communication studies where performance and presentation are essential elements.

Note: Students complete nine (9) units from the courses listed below:

Courses:	Units
COMS 101 Voice and Articulation	3
COMS 103 Oral Communication	3
COMS 104 Advanced Public Communication	3
COMS 111 Oral Interpretation	3
COMS 160 Argumentation and Critical Thinking	3
DRAM 106 Voice-Over Performance	3
Total Units = 9	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Associate of Arts Degree: Communication Studies

Courses Required for the Major:	Units
COMS 103 Oral Communication	3

Select 15 units from:

COMS 101 Voice and Articulation	3
COMS 104 Advanced Public Communication	3
COMS 135 Interpersonal Communication	3
COMS 160 Argumentation and Critical Thinking	3
COMS 170 Small Group Communication	3
COMS 180 Intercultural Communication	3

Total Units = 18

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: Anthropology 103; Communication Studies 111.

Transfer Information

Common university majors related to the field of Communication Studies include: Communication, Communicative Disorders, Graphic Communications, Journalism, Marketing, Public Relations.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Arts in Communication Studies 2.0 for Transfer Degree:

Description

The Associate in Arts in Communication Studies 2.0 for Transfer Degree is intended for students who plan to complete a bachelor's degree in Communication Studies or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed below, students must complete one of the following general education options:

The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.

The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

Completion of 60 CSU-transferable semester units. No more than 60 units are required.

Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.

Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.

Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Career Options: The career opportunities related to Communication Studies are vast and usually require associate or advanced degrees. Some communication career fields include: advertising and public relations, community service, counseling, education, human resources, journalism, management, marketing, performing arts, politics, and radio/television/film.

Associate in Arts in Communication Studies 2.0 for Transfer Degree:

Courses Required for the Major:	Units
COMS 103 Oral Communication	3
COMS 135 Interpersonal Communication	3

Select three courses (9 units) from the following:

COMS 104 Advanced Public Communication	3
COMS 160 Argumentation and Critical Thinking	3

COMS 170 Small Group Communication	3
COMS 180 Intercultural Communication	3
COMS 201 Communication and Community	3

Select one course (3 units) not selected above from the following:

COMS 104 Advanced Public Communication	3
COMS 111 Oral Interpretation	3
COMS 160 Argumentation and Critical Thinking	3
COMS 170 Small Group Communication	3
COMS 180 Intercultural Communication	3
COMS 201 Communication and Community	3

Total Units = 18

Computer Business Technology

Award Type	Units
Certificate of Performance:	
Microsoft Excel Essentials	5
Microsoft Office Essentials	4
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	

Description

The Computer Business Technology program offers certificates and degrees in entry-level positions. Skills learned in this program can be applied to any career field. Business Information Worker programs are offered for both transfer and career-oriented students. Emphasis is placed on upgrading computer skills for college success and/or employment in business office environments.

Career Options

Some careers in computer business technology require education beyond the associate degree. Examples of careers in computer business technology include: brokerage clerk, information and record clerk, general office clerk, order clerk, receptionist, entry-level administrative assistant, administrative clerk, cashier receptionist, clerical technician, customer service rep, mortgage receptionist, etc.

Program Learning Outcomes

Students who complete the program will be able to:

- Identify computer operating systems functions; define key features of different software applications; and demonstrate how to use a Web browser, and conduct an Internet search.
- Create office documents utilizing the Microsoft Office Suite programs (i.e. Word, Excel, Access, PowerPoint, Outlook, and Publisher).
- Analyze work environments, labor force, and organizational types and structures.
- Employ critical thinking as a basis for continual learning and problem solving.
- Demonstrate interpersonal skills (soft skills) such as leadership, delegation of authority, accountability, consensus building, communication, conflict resolution, and teambuilding.

Faculty	Office	Telephone
Theresa Savarese	BT-210A	619-388-3367

Certificate of Performance: Microsoft Excel Essentials*

The Microsoft Excel Essentials Certificate of Performance is designed to provide students with the Microsoft Excel efficiency that is usually required for most positions, regardless of the industry. Emphasis is placed on building fundamental competencies for jobs requiring skills in developing and designing spreadsheets and charts and processing data in this widely-used Microsoft Office application.

Courses:	Units
CBTE 140 Beginning Microsoft Excel	2
CBTE 143 Intermediate Microsoft Excel	3
Total Units = 5	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Microsoft Office Essentials*

The Microsoft Office Essentials Certificate of Performance is designed to provide students with the Microsoft Office efficiency that is usually required for most positions, regardless of the industry. Emphasis is placed on building fundamental competencies for jobs requiring skills in documenting, organizing information, delivering presentations, writing and preparing reports, and processing data in the widely-used Microsoft Office application.

Courses:	Units
CBTE 164 Introduction to Microsoft Outlook	1
CBTE 180 Microsoft Office	3
Total Units = 4	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Computer Information Systems

Award Type	Units
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Certificate of Performance:

Amazon Web Services (AWS) Cloud Technician I	6
Cyber Operations	7
Desktop Support Technician I	7
Game Programming	8
Introduction to C++	8
Intermediate C++	8
Microsoft Technology Specialist	14
Network Security I	7
Web Application Development	8

Certificate of Achievement:

C++	16
Computer Programming	28
Cybersecurity	32
Desktop Support Technician II	18
Information Technology Management	30
Network Security II	18

Associate of Science Degree:

Cybersecurity	35*
Computer Programming	28*
Information Technology Management	30*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Bachelor of Science Degree:

Cyber Defense and Analysis	54**
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**Plus lower division General Education Requirements and electives as needed to meet the lower division minimum of 60 units.

Description

San Diego City College's Computer Information Systems (CIS) program offers various areas of study:

- The Computer and Information Sciences (CISC) area of study introduces students to essentials of computer programming and software, database, and game development. The associate degree and certificate curriculum prepares students for programming careers, as well as transfer into four-year programs. The goal is for students to exit with the fundamental skills needed to continue

undergraduate education and to be successful in a chosen career.

- The Information, Network, and Web Technologies (INWT) area of study focuses on technical knowledge and decision-making capabilities regarding computer systems, network administration, and foundational cybersecurity. The associate degree and certificate curriculum prepares students for careers in information technology (IT) management, technical support, and systems security and administration, as well as transfer into four-year programs. Students of all backgrounds and skill levels train for relevance in today's workforce.

- The Cyber Defense and Analysis (CYDA) area of study develops advanced skills to interpret business needs, proactively defend computer networks, identify and analyze threats, and maintain cybersecurity resilience. The baccalaureate curriculum prepares students for careers in cyber-workforce operations. *Limitation on Enrollment: Must be admitted to the Cyber Defense and Analysis program.

Upon successful program completion, our graduates will:

1. Be poised to enter professional positions in a cybersecurity related occupation, or continue to a graduate study in cybersecurity or a related field of interest.
2. Be informed, active individuals engaged in the global community, social justice advocacy, and the highest level of professional ethics.
3. Pursue lifelong learning opportunities to improve and expand their technical and professional skills.

Program Learning Outcomes

Upon successful program completion, our graduates will:

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts.

- Recognize professional responsibilities and make informed judgments in computing practice, taking into account legal, ethical, diversity, equity, inclusion, and accessibility principles consistent with the mission of the institution.
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- Apply security principles and practices to maintain operations in the presence of risks and threats.

Career Options

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Faculty	Office	Telephone
David Kennemer	BT-103I	619-388-3011
Behnam Salemi	BT-210C	619-388-4353
Theresa Savarese	BT-210A	619-388-3367

Baccalaureate Program Director

Faculty	Office	Telephone
David Kennemer	BT-103I	619-388-3011

Academic Programs

The programs that follow, Certificates of Performance, Certificate of Achievement and Associate Degree for preparation for transfer, require completion of the courses listed below.

Certificate of Performance: Amazon Web Services (AWS) Cloud Technician I*

Amazon Web Services (AWS) is a comprehensive, evolving cloud computing platform provided by Amazon. It provides a mix of infrastructure as a service (IaaS), platform as a service (PaaS) and packaged software as a service (SaaS) offerings. Students explore AWS Cloud best practices and design patterns to help architect optimal IT solutions on AWS. Students also examine case studies that show how AWS customers have designed their infrastructures and the strategies and services they implemented. Utilizing strategies

examined, students build and explore a variety of infrastructures through a guided, hands-on activity. Upon successful completion of each course, students get access to vouchers for a free practice exam and discounted exam voucher for the AWS Certified Solutions Architect – Associate and AWS Certified Cloud Practitioner exam.

Courses:	Units
INWT 102 Information Technology (IT) Fundamentals	1.5
INWT 185 AWS Cloud Foundations (CF)	1.5
INWT 186 AWS Academy Cloud Architecting	3
Total Units = 6	

Recommended electives: Computer Information Sciences 179

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Cyber Operations*

The Certificate of Performance in Cyber Operations provides an intermediate-level study of cybersecurity blue team and red team methodologies through a curriculum that follows the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework with the common goal of developing critical knowledge, skills, and abilities to perform cybersecurity tasks. The curriculum includes simulated scenarios in the domains of system vulnerabilities, managing risk, and responding to cyber incidents. This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in cybersecurity workforce roles that have an impact on an organization's ability to protect its data, systems, and operations.

Note:

The Computer Information Systems department requires student to complete all requirements for the degree within five years.

The Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Career Options:

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Courses:		Units
INWT 170	Network Defense & Countermeasures (CySA+)	3
INWT 200	Ethical Hacking and Penetration Testing	4
		Total Units = 7

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Desktop Support Technician I*

The Certificate of Performance in Desktop Support Technician I provides students with an introductory level study in administering and supporting computers and operating systems. This curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in installation, administration, and troubleshooting of computer hardware and software. This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in IT roles that are vital for building, protecting, and maintaining information and technology assets.

Career Options

Some careers in the Information Technology (IT) field require education beyond the associate degree. Careers in the IT field include: computer consultant, help desk technician, instructional lab technician, sales specialist in computer hardware and software, support technician, IT management, computer assembler, systems integrator, network administrator, network specialist, systems engineer, computer operator, systems analyst, and systems administrator.

Courses:		Units
INWT 100	Computing Fundamentals (A+)	4
INWT 111	Windows Desktop Administration	3
		Total Units = 7

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Game Programming*

The goal of the Certificate of Performance in Game Programming is to prepare students for entry-level employment in the field of Information Technology as computer game programmers.

The Certificate of Performance in Game Programming is designed to provide students with training in the theory and practice of computer programming emphasizing the design of software games.

The Computer Information Systems Department requires students to complete all course requirements for the certificate within five years.

Career Options:

After successful completion of the Certificate of Performance in Game Programming, employment possibilities include: Software Developers, Applications, and Computer Game Programmers.

Courses:		Units
CISC 220	Fundamentals of Computer Game Programming	4
CISC 221	Intermediate Computer Game Programming	4
		Total Units = 8

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Introduction to C++*

Introduction to C++ provides students with a basic understanding of programming in the C++ language. It includes control structures, functions, file-handling, and pointers, followed by a study of data structures including linked lists, stacks, queues, recursion, and binary trees. This curriculum includes meaningful programming assignments

that take advantage of contemporary Integrated Development Environments (IDE) to develop/debug/test working code.

Career Options

Most careers in the C++ Programming field require education beyond the Certificate of Performance. This Certificate is an excellent tool for boosting employment hireability, career advancement, and salary upgrades. Careers in the C++ Programming field include: junior programmer, senior programmer, software developer, quality analyst, game programmer, software developer engineer, C++ analyst, backend developer, embedded engineer, and Database Developer.

Courses:		Units
CISC 187	Data Structures in C++	4
CISC 192	C/C++ Programming	4
Total Units = 8		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Intermediate C++*

Intermediate C++ provides students with an in-depth understanding of object-oriented programming in the C++ language, including classes, operator overloading, inheritance, polymorphism, exception handling, and the standard template library (STL). This is followed by an advanced study of best practices, templates, robust coding practices, unit testing, and adding a user interface. This curriculum is based upon meaningful programming assignments that are created, debugged, and tested in a contemporary Integrated Development Environment (IDE).

Career Options

Most careers in the C++ Programming field require education beyond the Certificate of Performance. This Certificate is an excellent tool for increasing employment hireability, career advancement, and salary upgrades. The material covered also helps students and engineers in computer engineering (CE), mechanical engineering (ME), and electrical engineering (EE) whose universities or jobs require additional/advanced C++ programming skills. Careers in the C++ Programming field include:

junior programmer, senior programmer, software developer, quality analyst, game programmer, software developer engineer, C++ analyst, backend developer, embedded engineer, and database developer.

Courses:		Units
CISC 201	Advanced C++ Programming	4
CISC 205	Object Oriented Programming using C++	4
Total Units = 8		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Microsoft Technology Specialist*

The Certificate of Performance in Microsoft Technology Specialist provides students with an in-depth study of infrastructure, cloud services, and packaged software offerings of Microsoft Technology. This curriculum includes hands-on experience in virtual environments that simulate real-world scenarios using best practices and design patterns to architect and support optimal IT solutions using Microsoft's products and services. This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in IT roles that are vital for building, protecting, and maintaining information and technology assets.

Career Options:

Some careers in the Information Technology (IT) field require education beyond the associate degree. Careers in the IT field include: computer consultant, help desk technician, instructional lab technician, sales specialist in computer hardware and software, support technician, IT management, computer assembler, systems integrator, network administrator, network specialist, systems engineer, computer operator, systems analyst, and systems administrator.

Courses:		Units
INWT 100	Computing Fundamentals (A+)	4
INWT 111	Windows Desktop Administration	3
INWT 112	Windows Infrastructure Administration	3

INWT 145 Linux Administration (Linux+) 4

Total Units = 14

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Network Security I*

The Certificate of Performance in Network Security I provides students with the entry-level skills to design and implement secure network architecture concepts and systems design. This curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in installation and administration of network technologies and tools, encryption and public key infrastructure (PKI), and identity and access management. This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in IT roles that are vital for building, protecting, and maintaining information and technology assets.

Note:

The Computer Information Systems department requires student to complete all requirements for the degree within five years.

Career Options:

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Courses:	Units
INWT 120 Network Fundamentals (Network+)	4
INWT 140 Security Fundamentals (Security+)	3
Total Units = 7	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Web Application Development*

Attention is placed on the theory and practice of computer programming emphasizing business and computer applications. Students receive hands-on experience in the fundamentals of designing and developing dynamic websites using the Ruby on Rails programming language.

Award Notes:

Students who successfully complete this award will be able to:

- Develop and maintain a dynamic website; and
- Work with server-side and client-side database applications.

Courses:	Units
CISC 183 Web Development with Ruby on Rails	4

Select one of the following courses:

CISC 179 Python Programming	4
CISC 186 Visual Basic Programming	4
CISC 190 Java Programming	4
CISC 192 C/C++ Programming	4

Total Units = 8

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: C++

The goal of the Certificate of Achievement in C++ is to prepare students for entry-level employment in the field of Information Technology.

The emphasis of the Certificate of Achievement in C++ is designed to provide students with training in the theory and practice of computer programming emphasizing business and computer applications using C++. Students receive hands-on experience in the fundamentals of structured- and object-oriented analysis, design, and implementation using the computer programming language C++.

Award Notes:

Students who successfully complete the Certificate of Achievement in C++ will be able to:

- Effectively design and implement programming constructs, including functions, control

structures, arrays/lists, classes, and objects for a given programming problem; and

- Effectively implement the appropriate data structures using the principles and techniques of object-oriented programming for a given programming problem.

Career Options

After successful completion of the Certificate of Achievement in C++, employment possibilities include: Software Developers, Applications; Software Developers, Systems Software; Computer Programmers; and Web Developers.

Courses Required for the Major:		Units
CISC 187	Data Structures in C++	4
CISC 192	C/C++ Programming	4
CISC 201	Advanced C++ Programming	4
CISC 205	Object Oriented Programming using C++	4
Total Units = 16		

Note: The Computer Information Systems Department requires students to complete all course requirements for the certificate within five years.

Certificate of Achievement: Computer Programming

This award prepares students for entry-level employment in the field of information technology (IT). It is designed to provide students with training in the theory and practice of computer programming emphasizing business and computer applications. Students receive hands-on experience in the fundamentals of structured- and object-oriented analysis, design, and implementation of popular computer programming languages, such as Python, C++, and Java.

Career Options

Some careers in computer programming require education beyond the associate degree. Careers in computer programming include: junior programmer, senior programmer, software developer, quality analyst, game programmer, software developer engineer, C++ analyst, backend developer, embedded engineer, and database developer.

Courses Required for the Major:		Units
CISC 179	Python Programming	4
CISC 183	Web Development with Ruby on Rails	4
or		
CISC 193	Microsoft C# Software Engineering 1	4
CISC 187	Data Structures in C++	4

CISC 190	Java Programming	4
CISC 192	C/C++ Programming	4
CISC 201	Advanced C++ Programming	4
CISC 205	Object Oriented Programming using C++	4
Total Units = 28		

Note: The Computer Information Systems Department requires students to complete all course requirements for the certificate within five years.

Certificate of Achievement: Cybersecurity

The Certificate of Achievement in Cybersecurity follows the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework and the Department of Defense (DoD) Cyber Workforce Framework (DCWF) with the common goal of developing knowledge, skills, and abilities (KSAs) to perform foundational cybersecurity tasks. The curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in the domains of security provisions, operations and maintenance, governance, protection and defense, analysis, collection, and investigation.

This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in cybersecurity workforce roles that have an impact on an organization's ability to protect its data, systems, and operations.

Careers in the cyber workforce or information security field include: cyber defense analyst, information security consultant, security administrator, security analyst, security engineer, security auditor, incident responder, penetration tester, vulnerability assessor, support technician, systems administrator, network administrator, and network specialist.

Note: The Computer Information Systems department requires student to complete all requirements for the degree within five years.

Career Options

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Courses Required for the Major:		Units
CISC 179	Introduction to Python Programming	4

INWT 100	Computing Fundamentals (A+)	4
INWT 101	Introduction to Information Security	3
INWT 120	Network Fundamentals (Network+)	4
INWT 125	Cloud+ Certification Training	3
INWT 140	Security Fundamentals (Security+)	3
INWT 145	Linux Administration (Linux+)	4
INWT 170	Network Defense & Countermeasures (CySA+)	3
INWT 200	Ethical Hacking and Penetration Testing	4

Total Units = 32

Note: The Computer Information Systems Department requires students to complete all course requirements for the certificate within five years.

Certificate of Achievement: Desktop Support Technician II

The Certificate of Achievement in Desktop Support Technician II provides students with an intermediate level study in administering and supporting computers, operating systems, and networks. This curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in installation, administration, and troubleshooting of computer hardware and software, enterprise networks, and security systems. This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in IT roles that are vital for building, protecting, and maintaining information and technology assets.

Career Options

Some careers in the Information Technology field require education beyond the associate degree. Careers in the IT field include: computer consultant, help desk technician, instructional lab technician, sales specialist in computer hardware and software, support technician, IT management, computer assembler, systems integrator, network administrator, network specialist, systems engineer, computer operator, systems analyst, and systems administrator.

Courses Required for the Major:		Units
INWT 100	Computing Fundamentals (A+)	4
INWT 111	Windows Desktop Administration	3
INWT 120	Network Fundamentals (Network+)	4
INWT 140	Security Fundamentals (Security+)	3
INWT 145	Linux Administration (Linux+)	4

Total Units = 18

Certificate of Achievement: Information Technology Management

The Certificate of Achievement in Information Technology Management provides students with a comprehensive education in teamwork and leadership, networking and security, and information systems management. This curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in installation, administration, and management of computer and network systems. This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in IT roles that are vital for building, protecting, and maintaining information and technology assets.

Career Options

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Courses Required for the Major:		Units
BUSE 119	Business Communications	3
CBTE 180	Microsoft Office	3
INWT 100	Computing Fundamentals (A+)	4
INWT 111	Windows Desktop Administration	3
INWT 112	Windows Infrastructure Administration	3
INWT 120	Network Fundamentals (Network+)	4
INWT 125	Cloud+ Certification Training	3
INWT 140	Security Fundamentals (Security+)	3
INWT 145	Linux Administration (Linux+)	4

Total Units = 30

Note: The Computer Information Systems Department requires students to complete all course requirements for the certificate within five years.

Certificate of Achievement: Network Security II

The Certificate of Achievement in Network Security II provides students with the intermediate-level skills to apply behavioral analytics to networks and devices to prevent, detect, and combat cybersecurity threats through continuous security monitoring. This curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in threat and vulnerability management, compliance and assessment, and incident response. This pathway includes preparation for industry-

recognized certifications geared towards preparing students for a successful career in IT roles that are vital for building, protecting, and maintaining information and technology assets.

Career Options

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Courses Required for the Major:		Units
INWT 120	Network Fundamentals (Network+)	4
INWT 140	Security Fundamentals (Security+)	3
INWT 145	Linux Administration (Linux+)	4
INWT 170	Network Defense & Countermeasures (CySA+)	3
INWT 200	Ethical Hacking and Penetration Testing	4
Total Units = 18		

Note: The Computer Information Systems Department requires students to complete all course requirements for the degree within five years.

Associate of Science Degree: Cybersecurity

The Associate of Science in Cybersecurity follows the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework and the Department of Defense (DoD) Cyber Workforce Framework (DCWF) with the common goal of developing knowledge, skills, and abilities (KSAs) to perform foundational cybersecurity tasks. The curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in the domains of security provisions, operations and maintenance, governance, protection and defense, analysis, collection, and investigation.

This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in cybersecurity workforce roles that have an impact on an organization's ability to protect its data, systems, and operations.

Careers in the cyber workforce or information security field include: cyber defense analyst, information security consultant, security administrator, security analyst, security engineer, security auditor, incident responder, penetration tester, vulnerability assessor, support technician,

systems administrator, network administrator, and network specialist.

Career Options

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Courses Required for the Major:		Units
CISC 179	Python Programming	4
INWT 100	Computing Fundamentals (A+)	4
INWT 101	Introduction to Information Security	3
INWT 120	Network Fundamentals (Network+)	4
INWT 125	Cloud+ Certification Training	3
INWT 140	Security Fundamentals (Security+)	3
INWT 145	Linux Administration (Linux+)	4
INWT 170	Network Defense & Countermeasures (CySA+)	3
INWT 200	Ethical Hacking and Penetration Testing	4
MATH 119	Elementary Statistics	3
Total Units = 35		

Note: The Computer Information Systems requires student to complete all requirements for the degree within five years.

*Students are recommended to complete CISC 246 for IGETC Area 2A or CSU GE Area B4.

Associate of Science Degree: Computer Programming

This award prepares students for entry-level employment in the field of information technology (IT). It is designed to provide students with training in the theory and practice of computer programming emphasizing business and computer applications. Students receive hands-on experience in the fundamentals of structured- and object-oriented analysis, design, and implementation of popular computer programming languages, such as Python, C++, and Java.

Career Options

Some careers in computer programming require education beyond the associate degree. Careers in computer programming include: junior programmer, senior programmer, software developer, quality analyst, game programmer, software developer engineer, C++ analyst, backend developer, embedded engineer, and database developer.

Courses Required for the Major:		Units
CISC 179	Python Programming	4

CISC 183	Web Development with Ruby on Rails	4
or		
CISC 193	Microsoft C# Software Engineering 1	4
CISC 187	Data Structures in C++	4
CISC 190	Java Programming	4
CISC 192	C/C++ Programming	4
CISC 201	Advanced C++ Programming	4
CISC 205	Object Oriented Programming using C++	4
Total Units = 28		

Note: The Computer Information Systems Department requires students to complete all course requirements for the degree within five years.

Associate of Science Degree: Information Technology Management

The Associate of Science in Information Technology Management provides students with a comprehensive education in teamwork and leadership, networking and security, and information systems management. This curriculum includes hands-on experience in virtual environments that simulate real-world scenarios in installation, administration, and management of computer and network systems. This pathway includes preparation for industry-recognized certifications geared towards preparing students for a successful career in IT roles that are vital for building, protecting, and maintaining information and technology assets.

Career Options

Graduates of these programs possess an applied knowledge of technical fields, such as web programming, computer network and security architecture, e-business, data center management, security operations, and information assurance.

Courses Required for the Major:		Units
BUSE 119	Business Communications	3
CBTE 180	Microsoft Office	3
INWT 100	Computing Fundamentals (A+)	4
INWT 111	Windows Desktop Administration	3
INWT 112	Windows Infrastructure Administration	3
INWT 120	Network Fundamentals (Network+)	4
INWT 125	Cloud+ Certification Training	3
INWT 140	Security Fundamentals (Security+)	3
INWT 145	Linux Administration (Linux+)	4
Total Units = 30		

Note: The Computer Information Systems Department requires students to complete all course requirements for the degree within five years.

Transfer Information

Common university majors related to the field of Computer Information Systems include:

Bioinformatics, Business Information Systems, Cognitive Science, Computer Science and Engineering, Geographic Information Systems, Graphic Communications, Information Systems.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Bachelor of Science Degree: Cyber Defense and Analysis

The Bachelor of Science in Cyber Defense and Analysis follows the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework and the Department of Defense (DoD) Cyber Workforce Framework (DCWF) with the common goal of developing critical knowledge, skills, and abilities (KSAs) to perform real-time defensive cyber operations. Program emphasis is on architectural, analytical, and strategic application of advanced techniques and technologies to actively monitor and defend core operational and emerging technology, network hardware and systems, and supply chain and critical infrastructure. Additionally, students explore the ethical and societal impacts of the development and use of cyber technology.

This pathway includes preparation for multiple industry-recognized certifications geared toward preparing students to be job-ready for a successful career in cyber workforce roles that impact an organization's ability to analytically assess and respond to modern cybersecurity threats while managing risk and maintaining business continuity.

Careers in the cyber workforce or information security field include: cyber defense analyst, information security consultant, security

administrator, security analyst, security engineer, security auditor, incident responder, penetration tester, vulnerability assessor, support technician, systems administrator, network administrator, and network specialist.

Program Prerequisites:

Applicants must have successfully completed the program prerequisites and lower division general education requirements, each with a grade of "C" or "P" or better:

- San Diego City College's Associate Degree in Cybersecurity, or equivalent, satisfies the program prerequisites required for the Cyber Defense and Analysis Baccalaureate Degree
- Credit for prior learning or experience working in a cyber defense field may be accepted for course credit upon approval of the program director
- General education requirements must meet one of the following general education options: the California State University General Education Breadth pattern or the Intersegmental General Education Transfer Curriculum pattern listed on pages of the college catalog.

*Students are recommended to complete CISC 246 for IGETC Area 2A or CSU GE Area B4.

Program Admission

Admission to the Cyber Defense and Analysis program follows a multicriteria screening process.

Program Prerequisites:		Units
CISC 179	Introduction to Python Programming	4
INWT 100	Computing Fundamentals (A+)	4
INWT 101	Introduction to Information Security	3
INWT 120	Network Fundamentals (Network+)	4
INWT 125	Cloud+ Certification Training	3
INWT 140	Security Fundamentals (Security+)	3
INWT 145	Linux Administration (Linux+)	4
INWT 170	Network Defense & Countermeasures (CySA+)	3
INWT 200	Ethical Hacking and Penetration Testing	4

Courses Required for the Major:		Units
BUSE 440	Cyber Law and Ethics	3
CISC 450	Security Analytics and Visualization	3
ENGL 402	Advanced Technical Writing	3
CYDA 400	Emerging Technology and Cybersecurity	3
CYDA 410	Modern Cryptography	3
CYDA 420	Applied Network Security Monitoring (NSM)	3

CYDA 430	Applied Intrusion Detection and Analysis	3
CYDA 440	Deconstructing Malware	3
CYDA 450	Network Forensics	3
CYDA 460	Digital Forensics	3
CYDA 500	Cyber Incident Response	3
CYDA 510	Disaster Response and Recovery	3
CYDA 520	Cyber Threat Intelligence (CTI)	3
CYDA 530	Advanced Security Implementation and Management	3
CYDA 540	Critical Infrastructure and Supply Chain Protection	3
CYDA 550	Systems and Network Auditing	3
CYDA 560	Operational Security Architecture	3
CYDA 570	Cyber Defense and Analysis Capstone	3

Total Units = 54

Conflict Resolution

Award Type	Units
Certificate of Performance:	
Conflict Resolution and Mediation	15
Certificate of Achievement:	
Conflict Resolution and Mediation	18

Description:

The Conflict Resolution and Mediation Certificate offers an interdisciplinary, theoretical, philosophical and applied approach for students to enter into the academic and/or professional fields related to Conflict Resolution and Mediation. Students explore the impacts of culture, intra and inter-group communication, conflict resolution and mediation. Students gain theory and practice to address conflicts in a personal, local, national and international level. The Conflict Resolution and Mediation program allows students access to professional experience with an organization working within a related field through participation in the required Field Work course.

Program Goals:

Upon successful completion of the Conflict Resolution and Mediation program, students are able to:

- Contemplate, analyze, and discuss issues related to the role of culture in conflict resolution and mediation.

- Think about their role in society through the use of conflict resolution and mediation.
- Critically think about their own values, individual biases, and personal conflict resolution style.
- Discover the art and science of conflict resolution and mediation.
- Learn and understand the core principles, values, and application of conflict resolution and mediation.
- Develop and enhance skills related to communication, listening and problem solving.

Program Emphasis:

The Conflict Resolution and Mediation program allows students to:

- Gain interpersonal awareness / knowledge of cultural differences and diverse perspectives.
- Learn about different forms of conflicts cross culturally and the methods to resolve those conflicts.
- Participate in opportunities to apply conflict resolution and mediation theory in a field experience.

Career Options:

The Certificate of Achievement prepares students to enter into the academic and professional field of Conflict Resolution and Mediation. Upon completion of the Certificate, students may secure employment at an entry-level position or a more senior level depending on the students' experience and education. Available career tracks include working for public institutions, governmental agencies, academia, non-profits, or for a non-governmental organization depending upon the student's interest and desired academic and professional path. Some career paths include:

- Conflict Resolution Practitioner
- Mediator
- Social Worker
- Legal Assistant
- Community Organizer
- Peacebuilder
- Educator
- Human Resources Manager

- Restorative Justice Case Coordinator
- Youth Worker
- Facilitator
- Anthropologist
- Counselor

**Certificate of Performance:
Conflict Resolution and Mediation***

Courses:	Units
ANTH 103 Introduction to Cultural Anthropology	
or	
HUMS 118 Diversity and Cultural Competency	3
PSYC 130 Introduction to Community Psychology	
or	
PSYC 166 Introduction to Social Psychology	3
PEAC 102 Nonviolence and Conflict Resolution	3
CRES 101 Conflict Resolution and Mediation	3
CRES 102 Mediation Skills	3
Total Units = 15	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

**Certificate of Achievement:
Conflict Resolution and Mediation**

Courses Required for the Major:	Units
ANTH 103 Introduction to Cultural Anthropology	
or	
HUMS 118 Diversity and Cultural Competency	3
PSYC 130 Introduction to Community Psychology	3
or	
PSYC 166 Introduction to Social Psychology	3
PEAC 102 Nonviolence and Conflict Resolution	3
CRES 101 Conflict Resolution and Mediation	3
CRES 102 Mediation Skills	3
CRES 276 Field Work in Conflict Resolution and Mediation	3
Total Units = 18	

Cosmetology

Award Type	Units
Certificate of Performance:	
Cosmetology Teacher Training Program	9
Nail Technician	11
Certificate of Achievement:	
Cosmetology	24
Esthetician	18
Associate of Science Degree:	
Cosmetology	24*
Esthetician Business Administration	30*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	

Description

San Diego City College's Cosmetology Program prepares students professionally in several aspects of the beauty industry. We provide students with every opportunity to succeed in the training program and to increase the student's opportunity for successfully passing the California State Board of Cosmetology licensing exam. Our students receive the technical foundation in an environment that nurtures the true artist within to build their business skills and help them with networking and job placement in the industry.

The integration of theoretical principles and practical laboratory courses provides students with an authentic experience to gain and demonstrate skills that exceed job-market standards and preparation for the California State Board of Barbering and Cosmetology licensure exam. Throughout the program, students benefit from critical, constructive feedback from faculty who not only meet qualifications for teaching at the community college level but also possess a state cosmetologist license and have salon, spa, and business experience in the field. Supervised practice begins on mannequin heads and hands and culminates with working on real-live models and clients in San Diego City College's salon and spa. Students train with professional equipment and products and learn how to conduct effective client consultations to create extraordinary guest-service experiences. Upon successful completion of the Cosmetology Program, students are armed with a robust portfolio and

professional resume that allows them to enter the job market with confidence.

Orientation

Orientation is mandatory prior to registration. Contact the Cosmetology Department Chair for a schedule of days and times.

Program

The San Diego City College's Cosmetology Program offers courses during the spring, summer, and fall semesters. Spring and fall semester daytime programs begin at every eight-week session. Spring and fall semester evening programs begin at every twelve-week session. Prospective students must be admitted to the program in order to register for cosmetology courses. Admitted students must attend an orientation to receive important information, program rules and regulations, and program expectations. Students transferring into the San Diego City College's Cosmetology Program cannot apply previous coursework towards the college's cosmetology degrees and certificates. Permission numbers are required to register for cosmetology courses.

Career Options

Some careers in cosmetology require education beyond the associate degree. Careers in cosmetology include: cosmetologist, barber, hairstylist, hair color specialist, perm specialist, nail care artists, manicurist, esthetician, salon owner, salon coordinator, salon manager, salon sales consultant, cosmetology instructor, photo and movie stylist, manufacturer sales representative, makeup artist, beauty magazine writer, beauty magazine editor, beauty product designer, cosmetology school owner, salon computer expert, salon franchisee, salon chain management, beauty care distributor, beauty care marketer, beauty care public relations specialist, research chemist, beauty business consultant, trade show director, and beauty school owner.

State Board Verification

Students with previous course hours in cosmetology from another community college program or private institution must provide written State Board documentation. The California State Board of Barbering and Cosmetology requires:

- Cosmetology: 1000 hours of instruction
- Esthetics: 600 hours of instruction
- Nail Technician: 400 hours of instruction
- Barber Crossover: 100 hours of instruction

All careers require a passing score on the State Board examination to become licensed and eligible for employment.

This program is approved by: Board of Barbering and Cosmetology, 2420 Del Paseo Road Suite 100, Sacramento, CA 94244-2260.

Faculty	Office	Telephone
Kim Czerwonka	CTC (F)	619-388-3283
Patricia Grooms-Jones	CTC (F)	619-388-3296

Program Learning Outcomes

Upon successful completion of the Cosmetology program the student will be able to:

- Apply cosmetology concepts, procedures and practices to successfully pass the State Board Examination.
- Practice safety, health, and sanitation procedures as set forth by the California Bureau of Cosmetology.
- Utilize professional practice terminology and techniques as required by the California Bureau of Cosmetology examination.
- Perform all practical applications required for the state board examination/state licensure.
- Explain basic cosmetology concepts, terms and definitions.
- Compare and contrast cosmetology procedures and practices.
- Apply cosmetology products and procedures in providing services to clients.

Academic Programs

The associate degree in Cosmetology require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Certificate of Performance: Cosmetology Teacher Training Program*

Students learn effective teaching methods to assist Cosmetology and Esthetician students with developing skills in sales, community and client relations, care of skin, hair and nails, as well as salon management. Emphasis is focused on lesson planning, oral presentations, and evaluations that teach the practical aspects of cosmetology science. Students must have obtained an approved California State Board of Barbering and Cosmetology license to enroll in the program.

Career Options:

Some careers in cosmetology require education beyond the associate degree. Examples of careers in cosmetology include: salon owner/manager, cosmetologist (salon services), platform stylist (demonstrates products and techniques for manufacturer), competition stylist, cosmetology instructor, technical writer for trade magazine, seminar/demonstration speaker and education specialist (for a manufacturer).

Courses Required for the Major:		Units
COSM 94A	Cosmetology Teacher Training Program I	4.5
COSM 94B	Cosmetology Teacher Training Program II	4.5
Total Units = 9		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Nail Technician*

The Nail Technician Certificate of Performance prepares students for the California Board of Barbering and Cosmetology Nail Technician exam and employment in a nail salon, nail salon management, and/or ownership of a nail salon.

The goal of the Nail Technician Certificate of Performance is to prepare students for success as an employee, manager, and/or owner of a nail salon. The curriculum emphasizes sanitation, disinfection, and sterilization of the nail salon and nail technician

tools and health and safety in the nail salon, as well as the basic anatomy of the hand and foot, nail diseases and disorders, manicuring, pedicuring, massage, reflexology, nail wraps, nail tips, nail design, chemistry for the nail technicians, and salon management.

Career Options:

Students who successfully complete the Nail Technician Certificate of Performance are prepared for employment as nail technicians, podiatrist assistants, nail salon managers, and/or nail salon owners.

Courses Required for the Major		Units
COSM 85	Nail Technician I	5.5
COSM 86	Nail Technician II	5.5
Total Units = 11		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Cosmetology

The Certificate of Achievement in Cosmetology provides students with practical and theoretical cosmetology training that prepares the student for the California Board of Cosmetology examination. Students gain the knowledge and hands-on skills on all aspects of the beauty industry under the supervision of trained professionals.

Award Notes:

A grade of "C" or better must be maintained in order to advance in the course sequence. The Cosmetology Department requires students to complete all required courses within seven years.

Courses Required for the Major		Units
COSM 50L	Fundamentals of Cosmetology	6
COSM 60L	Intermediate Cosmetology	6
COSM 70L	Intermediate-Advanced Cosmetology	6
COSM 80L	Advanced Cosmetology	6
Total Units = 24		

Note: The Cosmetology department requires students to complete all required courses within seven years.

Certificate of Achievement: Esthetician

Courses Required for the Major		Units
COSM 55	Esthetician I	2.5
COSM 55L	Esthetician I Lab	6.5
COSM 65	Esthetician II	2.5
COSM 65L	Esthetician II Lab	6.5
Total Units = 18		

Recommended electives: Cosmetology 93.

Associate of Science Degree: Cosmetology

The Associate Degree in Cosmetology provides students with the practical and theoretical cosmetology training that prepares the student for the California Board of Cosmetology examination. Students completing this degree have a competitive edge over their private school counterparts. Students not only acquire the high-level skills to compete in the industry, they also earn the opportunity to expand their educational horizon beyond the completion of the associate degree. It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

Award Notes:

A grade of "C" or better must be maintained in order to advance in the course sequence. The Cosmetology Department requires students to complete all required courses within seven years.

Courses Required for the Major		Units
COSM 50L	Fundamentals of Cosmetology	6
COSM 60L	Intermediate Cosmetology	6
COSM 70L	Intermediate-Advanced Cosmetology	6
COSM 80L	Advanced Cosmetology	6
Total Units = 24		

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Associate of Science Degree: Esthetician Business Administration

Courses Required for the Major		Units
COSM 55	Esthetician I	2.5

COSM 55L	Esthetician I Lab	6.5
COSM 65	Esthetician II	2.5
COSM 65L	Esthetician II Lab	6.5
BUSE 92	Introduction to Business Communication	3
or		
BUSE 119	Business Communications	3
BUSE 155	Small Business Management	3
BUSE 157	Developing a Plan for the Small Business	3
DRAM 124	Makeup for the Stage	3

Total Units = 30

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: Accounting 128A, Computer Business Technology 140 and 164 or 180, Cosmetology 75, Marketing 100.

Dance

Award Type	Units
Certificate of Performance:	
Dance	15
Certificate of Achievement:	
Dance	26.5
Associate of Arts Degree:	
Dance	26.5*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

Dance is a vigorous and specialized area in the performing arts, and is unique in its ability to convey emotional and cultural values. San Diego City College's Dance program provides an environment that supports self-expression and analytical thinking about the arts and the world around us, fostering an understanding of aesthetic values, and embracing diversity. While dance is physically demanding, this art form also requires creativity and critical thinking skills.

The Dance major at San Diego City College is one of six options in the Visual and Performing Arts division Associate Arts degree. Courses are designed to emphasize technique, choreography, performance, improvisation, history, and wellness. The Dance

program is primarily designed for students who intend to transfer to the universities that offer a baccalaureate preparation in Dance. Additionally, the program provides an excellent foundation in dance for students interested in other performing arts fields, participating in the larger dance community, or entry-level job opportunities related to movement and artistic values. Dance students also have the opportunity to work with Drama and Theatre productions and to perform in public performances.

Faculty	Office	Telephone
Terry Wilson	C-202D	619-388-3555
Dr. Grace Jun	C-202A	619-388-3563

Program Learning Outcomes

Upon completion the student will be able to demonstrate knowledge of:

- The history of dance including ballet, modern, jazz, Broadway/musical theatre, and global dance forms of dance.
- Aesthetic perception of various dance forms, and critical analysis and response to performance.
- An understanding of choreographic, technical and improvisational elements of dance.

Career Options

Some careers in dance require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in dance include: amusement park entertainer, athletic trainers, college/university educator, costume/lighting designer, dance & arts administration, dance company artist directory, dance company manager, dance historian, dance instructor, dance studio owner, dance therapist, model, nutritionist, production manager, professional dancers, stage manager, and choreographers.

Academic Programs

The associate degree in Dance requires completion of the courses listed for the degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Certificate of Performance: Dance*

Courses in choreography, dance history, and global dance traditions, along with technical training and improvisation are among those required for the Certificate of Performance in Dance. Dance students have opportunities to perform every semester and work closely with the City College Theatre and Musical Theatre departments in production for public performance.

This certificate prepares the dance student with a solid foundation of kinesthetic training in one or more idioms, principles of choreography, movement education, along with the process of performance. Graduates are qualified to work in regional dance theatre, as a professional dancer in industrial work in areas such as Los Angeles, and as a certified dance instructor or independent choreographer.

Courses:	Units
DANC 176B Dance Improvisation II	1.5
DANC 181 History of Dance	3
DANC 253 Choreography	2

Select 4.5 Units from the following:

DANC 111 Global Dance Traditions	2
DANC 112A Ballet I	1.5
DANC 112B Ballet II	1.5
DANC 112C Ballet III	1.5
DANC 112D Ballet IV	1.5
DANC 117A Tap Dance I	1.5
DANC 117B Tap Dance II	1.5
DANC 117C Tap Dance III	1.5
DANC 117D Tap Dance IV	1.5
DANC 122A Hip Hop I	1.5
DANC 122B Hip Hop II	1.5
DANC 122C Hip Hop III	1.5
DANC 122D Hip Hop IV	1.5
DANC 125A Latin American Dance I	1 - 1.5
DANC 125B Latin American Dance II	1 - 1.5
DANC 127 Movement for Wellness	2
DANC 137A Jazz Dance I	1.5
DANC 137B Jazz Dance II	1.5
DANC 137C Jazz Dance III	1.5
DANC 137D Jazz Dance IV	1.5
DANC 142A Modern Dance I	1.5
DANC 142B Modern Dance II	1.5
DANC 142C Modern Dance III	1.5
DANC 142D Modern Dance IV	1.5
DANC 160A Pilates - Stretch and Conditioning	1 - 1.5
DANC 160B Pilates - Alignment and Correctives	1 - 1.5
DANC 180A Advanced Contemporary Dance I	1.5

DANC 180B Advanced Contemporary Dance II	1.5
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Select four (4) units from the following:

DANC 176A Dance Improvisation	1.5
DANC 150A Dance Making: Ballet	1
DANC 151A Dance Making: Jazz	1
DANC 152A Dance Making: Modern	1
DANC 153A Dance Making: Dance Theatre	1
DANC 183 Music for Dance	2
DANC 261A Dance Performance I	2
DANC 261B Dance Performance II	2
DANC 261C Dance Performance III	2
DANC 261D Dance Performance IV	2
DANC 271A Stage Costuming for Dance	2
DANC 271B Makeup for Dance Productions	2
DANC 271C Lighting Design for Dance Production	2
DANC 271D Sound Design for Dance Production	2

Total Units = 15

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Dance

Courses in choreography, dance history, and global dance traditions, along with technical training and improvisation are among those required for the Certificate of Achievement in Dance. Dance students have opportunities to perform every semester and work closely with the City College Theatre and Musical Theatre departments in productions for public performance.

This certificate prepares the dance student with a solid foundation of kinesthetic training in one or more genres, principles of choreography and improvisation, movement education and wellness, along with an emphasis in performance. Graduates are qualified to work in regional dance theatre, as a professional dancer in industrial work in areas such as Los Angeles, and as a certified dance instructor, or independent choreographer.

Courses Required for the Major:	Units
DANC 111 Global Dance Traditions	2
DANC 112C Ballet III	1.5
DANC 112D Ballet IV	1.5
DANC 142C Modern Dance III	1.5
DANC 142D Modern Dance IV	1.5
DANC 176B Dance Improvisation II	1.5

DANC 181	History of Dance	3
DANC 183	Music for Dance	2
DANC 253	Choreography	2

Select six (6) units from the following:

DANC 112A	Ballet I	1.5
DANC 112B	Ballet II	1.5
DANC 117A	Tap Dance I	1.5
DANC 117B	Tap Dance II	1.5
DANC 117C	Tap Dance III	1.5
DANC 117D	Tap Dance IV	1.5
DANC 122A	Hip Hop I	1.5
DANC 122B	Hip Hop II	1.5
DANC 122C	Hip Hop III	1.5
DANC 122D	Hip Hop IV	1.5
DANC 127	Movement for Wellness	2
DANC 130A	Dance Repertoire	1
DANC 137A	Jazz Dance I	1.5
DANC 137B	Jazz Dance II	1.5
DANC 137C	Jazz Dance III	1.5
DANC 137D	Jazz Dance IV	1.5
DANC 142A	Modern Dance I	1.5
DANC 142B	Modern Dance II	1.5
DANC 150A	Dance Making: Ballet	1
DANC 151A	Dance Making: Jazz	1
DANC 152A	Dance Making: Modern	1
DANC 153A	Dance Making: Dance Theatre	1
DANC 160A	Pilates – Stretch and Conditioning	1 – 1.5
DANC 160B	Pilates – Alignment and Correctives	1 – 1.5
DANC 176A	Dance Improvisation	1.5
DANC 179A	Advanced Classical Dance I	1.5
DANC 179B	Advanced Classical Dance II	1.5
DANC 180A	Advanced Contemporary Dance I	1.5
DANC 180B	Advanced Contemporary Dance II	1.5

Select four (4) units from the following:

DANC 261A	Dance Performance I	2
DANC 261B	Dance Performance II	2
DANC 261C	Dance Performance III	2
DANC 261D	Dance Performance IV	2
DANC 271A	Stage Costuming for Dance	1–2
DANC 271B	Makeup for Dance Productions	1–2
DANC 271C	Lighting Design for Dance Production	1–2
DANC 271D	Sound Design for Dance Production	1–2

Total Units		26.5
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Associate of Arts Degree: Dance

Courses in choreography, dance history, and global dance traditions, along with technical training and improvisation are among those required for the Associate of Arts degree in Dance. Dance students have opportunities to perform every semester and work closely with the City College Theatre and Musical Theatre departments in productions for public performance.

The degree prepares the student with a solid foundation of kinesthetic training in one or more dance genres, principles of choreography and improvisation, and movement education and wellness, along with an emphasis in production and performance. Graduates are qualified to transfer with a major in Dance to UCs and CSUs as well as private colleges and universities.

The Associate of Arts in Dance degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a San Diego City College counselor.

Courses Required for the Major:	Units	
DANC 111	Global Dance Traditions	2
DANC 112C	Ballet III	1.5
DANC 112D	Ballet IV	1.5
DANC 142C	Modern Dance III	1.5
DANC 142D	Modern Dance IV	1.5
DANC 176B	Dance Improvisation II	1.5
DANC 181	History of Dance	3
DANC 183	Music for Dance	2
DANC 253	Choreography	2

Select six (6) units from the following:

DANC 112A	Ballet I	1.5
DANC 112B	Ballet II	1.5
DANC 117A	Tap Dance I	1.5
DANC 117B	Tap Dance II	1.5
DANC 117C	Tap Dance III	1.5
DANC 117D	Tap Dance IV	1.5
DANC 122A	Hip Hop I	1.5
DANC 122B	Hip Hop II	1.5
DANC 122C	Hip Hop III	1.5
DANC 122D	Hip Hop IV	1.5
DANC 127	Movement for Wellness	2
DANC 130A	Dance Repertoire	1
DANC 137A	Jazz Dance I	1.5

DANC 137B Jazz Dance II	1.5
DANC 137C Jazz Dance III	1.5
DANC 137D Jazz Dance IV	1.5
DANC 142A Modern Dance I	1.5
DANC 142B Modern Dance II	1.5
DANC 150A Dance Making: Ballet	1
DANC 151A Dance Making: Jazz	1
DANC 152A Dance Making: Modern	1
DANC 153A Dance Making: Dance Theatre	1
DANC 160A Pilates – Stretch and Conditioning	1 – 1.5
DANC 160B Pilates – Alignment and Correctives	1 – 1.5
DANC 176A Dance Improvisation	1.5
DANC 178A Advanced Commercial Dance I	1.5
DANC 178B Advanced Commercial Dance II	1.5
DANC 179A Advanced Classical Dance I	1.5
DANC 179B Advanced Classical Dance II	1.5
DANC 180A Advanced Contemporary Dance I	1.5
DANC 180B Advanced Contemporary Dance II	1.5

Select four (4) units from the following:

DANC 261A Dance Performance I	2
DANC 261B Dance Performance II	2
DANC 261C Dance Performance III	2
DANC 261D Dance Performance IV	2
DANC 271A Stage Costuming for Dance	2
DANC 271B Makeup for Dance Productions	2
DANC 271C Lighting Design for Dance Production	2
DANC 271D Sound Design for Dance Production	2

Total Units = 26.5

Transfer Information

Common university majors related to the field of Dance include: Dance, Dance and Performance Studies, Kinesiology, Liberal Studies, Physical Education, Theatre Arts, Visual and Performing Arts.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Design

Award Type	Units
Certificate of Achievement	
Graphic Design	30
Graphic Design Fundamentals	12
Interaction Design	33
Associate of Arts Degree	
Graphic Design	33*
Interaction Design	33*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Design program at San Diego City College provides students with strong foundational coursework, emphasizing typography and design principles needed to enter the industry. Students benefit from instructors who work professionally in the field. Students receive hands-on experience using current industry software and other tools to create projects for the real world. The Design program is primarily designed for students interested in entering the graphic design and interaction design fields. Students following the associate degree paths will be able to gain essential studies and skills needed to transfer to a private or public four-year design program.

Career Options:

At San Diego City College, we open the door to unlimited opportunity. Potential jobs include account executive, animator, art director, chief creative officer, content strategist, copywriter, creative director, design educator, design strategist, freelance designer, front-end developer, graphic designer, illustrator, information architect, in-house designer, interaction designer, production artist, product designer, production coordinator, project manager, senior designer, user experience designer, and user interface designer. Fields of specialization include advertising, graphic design, environmental design, illustration, information graphics, interaction design, packaging, publication design, motion graphics, type design/lettering, user experience design, user interface design, and website design.

For additional information please visit our website: <https://sdcc.gd>

Program Learning Outcomes

Students who complete the program will be able to:

- Incorporate research processes and conceptual strategies to solve design problems.
- Demonstrate an understanding of visual coherence by building typographic systems.
- Demonstrate proficiency with current industry standard design software.
- Produce a body of work that demonstrates a unique voice, vision, and viewpoint.

Faculty	Office	Telephone
Sean Bacon	AH-404A	619-388-4383
Bradford Prairie	AH-405B	619-388-3417

Certificate of Achievement: Graphic Design

Graphic design is a field that uses visual communication and conceptual strategy to solve graphic problems. The program starts with strong foundational coursework and an early emphasis on typography and design principles. Guided by instructors who are working professionals, students use current industry software and processes to create professional design projects. With an emphasis on process, conceptual strategy, and professional practices, students are given broad opportunities to develop a unique voice, vision, and viewpoint. Using both print and digital formats, students produce projects that demonstrate an understanding of visual communication through brand strategy, interaction design, and typographic systems. The program culminates in a professional body of work that could be used to obtain employment or transfer to a four-year design program.

Courses Required for the Major	Units
DSGN 100 Introduction to Graphic Design	3
DSGN 102 Digital Media I	3
DSGN 104 Graphic Design History	3
DSGN 106 Typography I	3
DSGN 120 Illustration	3
or	
ARTF 174A Book Arts I	3
DSGN 124 Page Layout	3
DSGN 206 Typography II	3

DSGN 210 Branding and Packaging	3
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Complete two additional courses from the following:

DSGN 120 Illustration	3
ARTF 174A Book Arts I	3
DSGN 143 Interaction Design I	3
DSGN 153 Interaction Design II	3
DSGN 202 Digital Media II	3
DSGN 203 Interaction Design III	3
DSGN 213 Interaction Design IV	3
DSGN 216A Design Studio I	3
DSGN 216B Design Studio II	3
DSGN 216C Design Studio III	3
DSGN 218 Internship	3
DSGN 222 Book Arts II	3

or

DSGN 248 Portfolio I	3
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and

DSGN 258 Portfolio II	3
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Total Units = 30

Note: The Design Department requires students to complete all requirements for the certificate within seven years.

Certificate of Achievement: Graphic Design Fundamentals

This Graphic Design Fundamentals Certificate of Achievement provides students with foundational graphic design skills and knowledge. Using current industry software, students combine graphics, images, and typography, to represent ideas and messages. This award gives students a basic understanding of visual communication and software that can be applied to non-design careers.

Courses Required for the Major	Units
DSGN 100 Introduction to Graphic Design	3
DSGN 102 Digital Media I	3
DSGN 104 Graphic Design History	3
DSGN 106 Typography I	3

Total Units = 12

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Interaction Design

Interaction design is a field that blends visual communication and technology to create interactive experiences on a wide variety of digital platforms. Students apply industry standard user experience

processes to the development of effective information architecture, intuitive user interfaces, and compelling interactive content. With an emphasis on research, strategy, and professional practices, students are given broad opportunities to develop a unique voice, vision, and viewpoint. The program culminates in a professional body of work that could be used to obtain employment or transfer to a four-year design program.

Courses Required for the Major		Units
DSGN 100	Introduction to Graphic Design	3
DSGN 102	Digital Media I	3
DSGN 104	Graphic Design History	3
DSGN 106	Typography I	3
DSGN 124	Page Layout	3
DSGN 143	Interaction Design I	3
DSGN 153	Interaction Design II	3
DSGN 203	Interaction Design III	3

Choose three courses from the following:

DSGN 120	Illustration	3
DSGN 174A	Book Arts I	3
DSGN 202	Digital Media II	3
DSGN 206	Typography II	3
DSGN 210	Branding and Packaging	3
DSGN 213	Interaction Design IV	3
DSGN 216A	Design Studio I	3
DSGN 216B	Design Studio II	3
DSGN 216C	Design Studio III	3
DSGN 218	Internship	3
DSGN 222	Book Arts II	3

or

DSGN 248	Portfolio I	3
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and

DSGN 258	Portfolio II	3
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Total Units = 33

Note: The Design Department requires students to complete all requirements for the award within seven years.

Associate of Arts Degree: Graphic Design

Graphic design is a field that uses visual communication and conceptual strategy to solve graphic problems. The program starts with strong foundational coursework and an early emphasis on typography and design principles. Guided by instructors who are working professionals, students use current industry software and processes to create professional design projects. With an emphasis on process, conceptual strategy, and professional practices, students are given broad

opportunities to develop a unique voice, vision, and viewpoint. Using both print and digital formats, students produce projects that demonstrate an understanding of visual communication through brand strategy, interaction design, and typographic systems. The program culminates in a professional body of work that could be used to obtain employment or transfer to a four-year design program.

Courses Required for the Major		Units
DSGN 100	Introduction to Graphic Design	3
DSGN 102	Digital Media I	3
DSGN 104	Graphic Design History	3
DSGN 106	Typography I	3
DSGN 120	Illustration	3

or

ARTF 174A	Book Arts I	3
DSGN 124	Page Layout	3
DSGN 206	Typography II	3
DSGN 210	Branding and Packaging	3

Complete three additional courses from the following:

DSGN 120	Illustration	3
ARTF 174A	Book Arts I	3
DSGN 143	Interaction Design I	3
DSGN 153	Interaction Design II	3
DSGN 202	Digital Media II	3
DSGN 203	Interaction Design III	3
DSGN 213	Interaction Design IV	3
DSGN 216A	Design Studio I	3
DSGN 216B	Design Studio II	3
DSGN 216C	Design Studio III	3
DSGN 218	Internship	3
DSGN 222	Book Arts II	3

or

DSGN 248	Portfolio I	3
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and

DSGN 258	Portfolio II	3
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Total Units = 33

Note: The Design Department requires students to complete all requirements for the certificate within seven years.

Associate of Arts Degree: Interaction Design

Interaction design is a field that blends visual communication and technology to create interactive experiences on a wide variety of digital platforms. Students apply industry standard user experience processes to the development of effective information architecture, intuitive user interfaces,

and compelling interactive content. With an emphasis on research, strategy, and professional practices, students are given broad opportunities to develop a unique voice, vision, and viewpoint. The program culminates in a professional body of work that could be used to obtain employment or transfer to a four-year design program.

Courses Required for the Major		Units
DSGN 100	Introduction to Graphic Design	3
DSGN 102	Digital Media I	3
DSGN 104	Graphic Design History	3
DSGN 106	Typography I	3
DSGN 124	Page Layout	3
DSGN 143	Interaction Design I	3
DSGN 153	Interaction Design II	3
DSGN 203	Interaction Design III	3

Choose three courses from the following:

DSGN 120	Illustration	3
DSGN 174A	Book Arts I	3
DSGN 202	Digital Media II	3
DSGN 206	Typography II	3
DSGN 210	Branding and Packaging	3
DSGN 213	Interaction Design IV	3
DSGN 216A	Design Studio I	3
DSGN 216B	Design Studio II	3
DSGN 216C	Design Studio III	3
DSGN 218	Internship	3
DSGN 222	Book Arts II	3

or

DSGN 248	Portfolio I	3
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and

DSGN 258	Portfolio II	3
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Total Units = 33

Note: The Design Department requires students to complete all requirements for the certificate within seven years.

Transfer Information

Common university majors related to the field of Art–Graphic Design include: Graphic Communications, Communication Design, Design Media, Digital Design, Design Graphics, Graphic Design, Illustration.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor’s degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also

earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student’s specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Digital Journalism

Award Type	Units
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Associate in Arts for Transfer Degree: Journalism	18
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The Associate in Arts in Journalism for Transfer Degree is intended for students who plan to complete a bachelor’s degree in Journalism or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.
- It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 133 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Career Options

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Faculty	Office	Email
Nicole Vargas	L-117	nvargas@sdccd.edu

Associate in Arts in Journalism for Transfer Degree:

Courses Required for the Major:		Units
DJRN 100	Mass Media in the Digital Age	3
DJRN 200	Newsriting for Multimedia	3
DJRN 210	News Reporting and Editing for Publication	3
DJRN 211	Online News Concepts for Publication	3
or		
DJRN 205	Community Journalism for Multimedia	3

Select two courses (6 units) from the following:

COMS 160	Argumentation and Critical Thinking	3
ECON 120	Principles of Macroeconomics	3
POLI 102	Introduction to American Government	3
RTVF 140	Radio and TV Newsriting	3

Total Units = 18

Dramatic Arts

See "Theatre" on page 316.

Economics

Award Type	Units
Certificate of Performance:	
Fundamentals of Economics	6
Certificate of Achievement	
Economics	18-21
Associate in Arts for Transfer Degree:	
Economics	18-21

Certificate of Performance: Fundamentals of Economics*

This Certificate of Performance in Economics provides students the opportunity to learn core concepts and gain insight into the field of economics as well as serves as a stepping stone toward higher academic degrees in the field of economics. ECON 120 and ECON 121 provides students a comprehensive introduction to the field of economics and fulfills the lower division general education requirements for the CSU GE Breadth pattern, IGETC pattern, and SDCCD General Education requirement for an associate degree.

Career Options:

Students who successfully complete the Nail Technician Certificate of Performance are prepared for employment as nail technicians, podiatrist assistants, nail salon managers, and/or nail salon owners.

Courses:	Units
ECON 120 Principles of Macroeconomics	3
ECON 121 Principles of Microeconomics	3
Total Units = 6	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Note: ECON 120 and ECON 121 fulfills the lower division general education requirements for the CSU GE Breadth pattern, IGETC pattern, and SDCCD General Education requirement for an associate degree.

Certificate of Achievement: Economics

This Certificate of Achievement in Economics provides students the opportunity to learn core concepts and gain insight into the field of economics as well as serves as a steppingstone toward higher academic degrees in the field of economics. This award provides students with a pathway towards completing the Associate in Arts in Economics for Transfer Degree.

Courses Required for the Major		Units
ECON 120	Principles of Macroeconomics	3
ECON 121	Principles of Microeconomics	3
MATH 119	Elementary Statistics	3
MATH 121	Basic Techniques of Applied Calculus I	3

Select one of the following courses (3–5 units):

ACCT 116A	Financial Accounting	4
ACCT 116B	Managerial Accounting	4
BUSE 119	Business Communications	3
CISC 181	Principles of Information Systems	4
MATH 116	College and Matrix Algebra	3
MATH 122	Basic Techniques of Calculus II	3
MATH 150	Calculus with Analytic Geometry I	5
MATH 151	Calculus with Analytic Geometry II	4

Select one of the following courses not already selected above (3–4 units):

ACCT 116A	Financial Accounting	4
ACCT 116B	Managerial Accounting	4
BUSE 119	Business Communications	3
CISC 181	Principles of Information Systems	4
MATH 116	College and Matrix Algebra	3
MATH 122	Basic Techniques of Calculus II	3
MATH 151	Calculus with Analytic Geometry II	4

Total Units = 18–21

Description

The Associate in Arts in Economics for Transfer Degree is intended for students who plan to complete a bachelor's degree in Economics or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about

participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed below, students must complete one of the following general education options:

The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.

The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

Completion of 60 CSU-transferable semester units. No more than 60 units are required.

Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.

Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.

Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Goals:

The purpose of the Associate in Arts in Economics for Transfer degree is to offer an organized course of study that will prepare students intending to major in Economics at the California State University

(CSU). It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Program Emphasis:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Associate in Arts in Economics for Transfer Degree:

Courses Required for the Major:	Units
ECON 120 Principles of Macroeconomics	3
ECON 121 Principles of Microeconomics	3
MATH 119 Elementary Statistics	3
MATH 121 Basic Techniques of Applied Calculus I	3

Select one of the following courses (3–5 units):

ACCT 116A Financial Accounting	4
ACCT 116B Managerial Accounting	4
BUSE 119 Business Communications	3
CISC 181 Principles of Information Systems	4
MATH 116 College and Matrix Algebra	3
MATH 122 Basic Techniques of Calculus II	3
MATH 150 Calculus with Analytic Geometry I	5
MATH 151 Calculus with Analytic Geometry II	4

Select one of the following courses not already selected above (3–4 units):

ACCT 116A Financial Accounting	4
ACCT 116B Managerial Accounting	4
BUSE 119 Business Communications	3
CISC 181 Principles of Information Systems	4
MATH 116 College and Matrix Algebra	3
MATH 122 Basic Techniques of Calculus II	3
MATH 151 Calculus with Analytic Geometry II	4

Total Units = 18–21

Electricity

Award Type	Units
Certificate of Performance:	
Electrical Recertification Preparation	9
Certificate of Achievement:	
Electrical Control Systems Option	25
Electricity	20
Lineman	30
Associate of Science Degree:	
Electricity	20*
Lineman	30*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The San Diego Gas and Electric (SDGE) program is designed to provide students with an opportunity to master the skills required for success in the electrical trades. Emphasis is placed on electrical principles and safety on the job in the study of power distribution and line construction industry. Topics include the use of "hot sticks" and special equipment, repair and maintenance of poles and lines, both cold and energized, and safety practices, and the local/state requirements. Students are expected to master competencies, such as those included in elements of electricity, overhead pole and electrical line construction, safety codes and applications, electric power system, transformer and meter installations, and exploration of underground electrical distribution.

Program Goals

The goal and objective of this program is to provide students with hands-on skills and theoretical knowledge needed to meet the demands of an electrician entering the field.

Program Emphasis

The program begins with an introduction to basic electrical theory and continues through advanced electrical theory, installation and maintenance of industrial equipment, familiarization with electrical codes and blueprints, and the characteristics and uses of motor controls. Emphasis is also placed on electrical safety and application of the National Electric Code to residential and commercial

electrical installations. The program also offers courses intended to satisfy the State of California re-certification requirements for electricians working for or as a C-10 Electrical Contractor.

Career Options

Employment may be found as an electrician, electric lineman, maintenance electrician, electrical helper, electrical motor repairer, appliance repairer, or protective signal installer and repairer. Industries that hire electricians range from city and government agencies to commercial firms as well as homeowners.

Students interested in an electrical trade apprenticeship are directed to the Apprenticeship information in this Catalog (see Index). The Electricity Program offers Electrician Trainees who have taken course for an apprenticeship program the opportunity to apply their courses toward earning a certificate or an associate degree in Electricity. Apprentice students who plan to complete a certificate or an associate degree in Electricity should consult the professor on record for the Electricity program.

Faculty	Office	Telephone
Kenneth Heifner	T-293-C	619-388-3731

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate knowledge of electrical codes and blueprints.
- Discuss and demonstrate knowledge of safety in the electrical field.
- Evaluate electrical wiring diagrams as they relate to implementation.
- Demonstrate a basic knowledge of generators and motors.
- Prepare and apply to take the State of California electrician certification exam.

Academic Programs

The Certificates of Achievement and Associate degree, Electricity, require completion of the courses listed below.

Certificate of Performance: Electrical Recertification Preparation*

Courses:		Units
ELCT 20	Blueprint Reading for Electricians	3
ELCT 30	Modern Commercial Wiring	3
ELCT 40	Data, Voice, and Video Cabling for Electricians	3
Total Units = 9		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Electrical Control Systems Option

Electrical Control Systems Option emphasizes the study of electrical control system theory including standard motor controls, transducers, static control devices, programmed controllers, and remote electronic controls.

Courses Required for the Major:		Units
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
ELCT 131	Electrical Theory III	3
ELCT 131L	Electrical Laboratory III	2
ELCT 141	Electrical Theory IV	3
ELCT 141L	Electrical Laboratory IV	2
ELCT 200	Electrical Control Systems	3
ELCT 200L	Electrical Control Systems Laboratory	2
Total Units = 25		

Recommended electives: Electricity 20, 30, 40, 270.

Certificate of Achievement: Electricity

Courses Required for the Major:		Units
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
ELCT 131	Electrical Theory III	3
ELCT 131L	Electrical Laboratory III	2
ELCT 141	Electrical Theory IV	3

ELCT 141L Electrical Laboratory IV 2

Total Units = 20

Certificate of Achievement: Lineman

The Certificate of Achievement in Lineman is designed to prepare students for lineman opportunities. Students may also install, maintain, and operate intricate electrical systems, including power lines and underground equipment. Completion of this program will not guarantee employment as a Lineman with San Diego Gas and Electric Company.

Courses Required for the Major:		Units
SDGE 90	Electric Lineman IA	5
SDGE 91	Electric Lineman IB	5
SDGE 92	Electric Lineman IIA	5
SDGE 93	Electric Lineman IIB	5
SDGE 94	Electric Lineman IIIA	5
SDGE 95	Electric Lineman IIIB	5

Total Units = 30

Associate of Science Degree: Electricity

Courses Required for the Major:		Units
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
ELCT 131	Electrical Theory III	3
ELCT 131L	Electrical Laboratory III	2
ELCT 141	Electrical Theory IV	3
ELCT 141L	Electrical Laboratory IV	2

Total Units = 20

Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Recommended elective: Electricity 270.

Associate of Science Degree: Lineman

The Associate of Science in Lineman is designed to prepare students for lineman opportunities. Students may also install, maintain, and operate intricate electrical systems, including power lines and underground equipment. Completion of this program will not guarantee employment as a Lineman with San Diego Gas and Electric Company.

Courses Required for the Major:

Courses Required for the Major:		Units
SDGE 090	Electric Lineman IA	5
SDGE 091	Electric Lineman IB	5
SDGE 092	Electric Lineman IIA	5
SDGE 093	Electric Lineman IIB	5
SDGE 094	Electric Lineman IIIA	5
SDGE 095	Electric Lineman IIIB	5

Total Units = 30

Complete the Certificate of Achievement, Electricity. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Transfer Information

Common university majors related to the field of Electricity include: Industrial Engineering, Industrial Technology.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Electromechanical Engineering Technology

Award Type

Certificate of Performance:		Units
Electromechanical Technology		15
Advanced Electromechanical Technology		12

Description

The Electromechanical Engineering Technology course of study provides a comprehensive learning environment of both electronic and mechanical principles. Learning emphasis is placed

upon the hands-on application and design of electromechanical systems that include analog & digital electronics, engineering design, and computer controlled mechanical systems.

Program Emphasis

The curriculum is based on integrated technical and core competencies (electronics, engineering design, engineering sciences), and it emphasizes a project-based learning format. Students work in teams to learn concepts, solve problems and make discoveries in a workplace-related environment. Students use traditional, Internet resources, and industry supplied data as sources of information.

Faculty	Office	Telephone
Justin Bond	T-293D	619-388-3875

Career Options

Design-Development Technician, Automation Technician, Instrumentation Technician, Electromechanical Technician, Engineering Aide

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate the proper use of basic electronics test instrumentation including an oscilloscope, a digital volt-ohm meter, a signal generator and a dual power supply.
- Identify standard electronic components including resistors, capacitors, inductors, diodes, bipolar transistors, field effect transistors, and integrated circuits.
- Demonstrate proficiency in at least one three-dimensional engineering design software.

Certificate of Performance: Electromechanical Technology*

Courses:	Units
ELDT 123 Introduction to Digital Circuits	3
ELDT 123L Digital Circuits Laboratory	1
ELDT 124 Basic DC Electronics	4
ELDT 124L Basic DC Laboratory	1
ENGE 151 Computer-Aided Design	2
PHYS 100 Introductory Physics	4
or	
CHEM 100 Fundamentals of Chemistry	3
and	

CHEM 100L Fundamentals of Chemistry Laboratory	1
Total Units = 15	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Advanced Electromechanical Technology*

Courses:	Units
ELDT 143 Semiconductor Devices	3
ELDT 143L Semiconductor Devices Laboratory	1.5
ELDT 224 Microprocessor Design	3
ELDT 224L Microprocessor Design Laboratory	1.5
ENGE 152 Engineering Design	3
Total Units = 12	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Transfer Information

Common university majors related to the field of Electromechanical Technology include:

Industrial Engineering, Electromechanical Technology, Engineering Technology.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Electronics

Award Type	Units
Certificate of Performance:	
Electronics Technician Level I	14
Certificate of Achievement:	
Electronics	27
Electronic Communication Systems	39
Electronic Microprocessor/Microcontroller Design	37
Associate of Science Degree:	
Electronic Communication Systems	39*
Electronic Microprocessor/Microcontroller Design	37*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

Electronics is a field of technology that is concerned with the installation, operation, repair, maintenance, calibration, modification, and documentation of electronic circuitry, components, and systems. Technicians are also trained to use test equipment to diagnose problems arising from electro-mechanical malfunctions and to assist engineers or technologists in preparing reports and prototypes of electronic units or systems. Graduates of the Electronics program understand the physical sciences, mathematics, and applications necessary in the installation, construction, programming, operation, maintenance, and diagnosis of microcontrollers, microcomputers, and microprocessor based systems.

The Electronics program provides an opportunity for interested students to take Electronics Technician Association (ETA) and International Association for Radio, Telecommunication and Electromagnetics (iNARTE) Certification tests. Two major areas of emphasis are currently available to electronics student: microcontroller/microprocessor technology and electronic communication technology.

Program Goals

The Electronics Program aids students in developing the knowledge, skills and abilities needed in order to become a proficient electronics technician in the student's desired area of focus. The successful student is proficient with basic

electronics measurement instrumentation and understands basic electronics circuitry. In addition to courses and labs, the Electronics Program provides an opportunity for interested students to take Electronics Technician Association (ETA) and International Association for Radio, Telecommunication and Electromagnetics (iNARTE) Certification tests.

Program Emphasis

The Electronics Program emphasis is on providing the fundamental knowledge needed by a general electronics technician. Ample opportunity for electronics skill development is provided in laboratory courses. Two major areas of emphasis are currently available to electronics students: microcontroller/microprocessor technology and electronic communication technology.

Career Options

Some career options listed require a baccalaureate degree. A partial list of possible career options are as follows: computer system electronic technicians, computer and office machine repairers, electrical and electronic engineering technicians, electro-mechanical technicians, electrical and electronics repairers, marine robotics technicians, avionics technicians, transportation technicians, and technical writers.

Faculty	Office	Telephone
Kenneth Heifner	T-293C	619-388-3731
Farnaz Khoromi	T-373	619-388-3527

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate the proper use of basic electronic test instrumentation including an oscilloscope, a digital volt-ohm meter, a signal generator, and a dual power supply.
- Analyze and explain basic electronic theory including Ohm's Law, the power formula, and calculation of voltage gain and power gain.
- Identify standard electronic components including resistors, capacitors, inductors, diodes, bipolar transistors, field effect transistors, and integrated circuits.
- Demonstrate the ability to prepare reports that include text, tables, and spreadsheets using productivity software on a computer.

Certificate of Performance: Electronics Technician Level I*

Certificate of Performance for entry level electronics technician.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4
ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
Total Units = 14		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Electronics

This certificate of achievement provides basic preparation for electronic technicians.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4
ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELDT 126	Using C AND C++ for Technology	3
ELDT 126L	Using C AND C++ for Technology Laboratory	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors & Computers	3
ELDT 144L	OP-AMPS, Sensors & Computers Laboratory	1.5
Total Units = 27		

Certificate of Achievement: Electronic Communication Systems

Electronics is a field of technology that is concerned with the installation, operation, repair, maintenance, calibration, modification, and service of electronic circuitry, components, and systems.

This program introduces students to communication theory/circuitry, and reception of AM, FM, and digital signals. Communications links and lasers/fiber optics systems, and local, metropolitan and wide-area networks are also presented.

Note:

Graduates of the Electronics program understand the physical sciences, mathematics, applications, and customer relations necessary in the installation, construction, operation, maintenance, and diagnosis of electronic communication systems.

Students who successfully complete the Electronic Communication Systems certificate will be able to:

1. Interpret the block diagrams of electronic communication systems.
2. Perform tests to verify the performance of electronic communication systems.
3. Make repairs to correct diagnosed faults in electronic communication systems.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4
ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELDT 126	Using C AND C++ for Technology	3
ELDT 126L	Using C and C++ for Technology Laboratory	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 227	Introduction to Lasers and Fiber Optics	3
ELDT 227L	Lasers and Fiber Optics Laboratory	1
ELDT 228	Communication Circuits	3
ELDT 228L	Communication Circuits and Certification Laboratory	1
ELDT 229	Advanced Telecommunications Networks	3
ELDT 229L	Advanced Telecommunications Networks Laboratory	1
Total Units = 39		

Certificate of Achievement: Electronic Microprocessor/ Microcontroller Design

The Certificate of Achievement in Electronic Microprocessor/Microcontroller Design prepares the student for entry-level technical positions in the microprocessor/microcontroller field. Emphasis is placed on testing and documenting the performance of microcontroller systems, modifying microcontroller circuits for improved performance, and upgrading older systems to newer technology.

Notes:

Students who successfully complete the Certificate of Achievement in Electronic Microprocessor/Microcontroller Design are prepared to:

- Interpret the block diagrams of microprocessor/microcontroller systems;
- Modify computer programs for microprocessor/microcontroller systems; and
- Develop circuits to interface motors, displays, sensors, and switching to microprocessor/microcontroller systems.

Note: The Electronics Department requires students to complete all requirements for the certificate within five years.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4
ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELDT 126	Using C AND C++ for Technology	3
ELDT 126L	Using C and C++ for Technology Laboratory	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 225	Microcontrollers	3
ELDT 225L	Microcontrollers Laboratory	1.5
ELDT 232	Advanced Computer Design and Interfacing	4
ELDT 232L	Advanced Computer Designs Laboratory	1.5
Total Units = 37		

Associate of Science Degree: Electronic Communication Systems

The Electronics Program emphasis is on providing the fundamental knowledge needed by a general electronics technician. Ample opportunity for electronics skill development is provided in laboratory courses. Two major areas of emphasis are currently available to the electronics student: microcontroller/microprocessor technology and electronic communication technology.

Electronics is a field of technology that is concerned with the installation, operation, repair, maintenance, calibration, modification, and service of electronic circuitry, components, and systems. Technicians often work as part of a design team in industry under the guidance of engineers in preparing prototypes of electronic units or systems. They may check that prototypes are safe work as intended.

Note:

The Associate of Science in Electronic Communication Systems aids students in developing the knowledge, skills, and abilities needed in order to become a proficient electronics technician in the student's desired area of focus. The successful student is proficient with basic electronics measurement instrumentation and understands basic electronics circuitry. In addition to courses and labs, the Associate of Science in Electronic Communication Systems provides an opportunity for interested students to take Electronics Technician Association (ETA) and International Association for Radio, Telecommunication and Electromagnetics (iNARTE) Certification tests.

Students who successfully complete the Associate of Science in Electronic Communication Systems will be able to:

1. Interpret the block diagrams of electronic communication systems.
2. Perform tests to verify the performance of electronic communication systems.
3. Make repairs to correct diagnosed faults in electronic communication systems.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4

ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELDT 126	Using C AND C++ for Technology	3
ELDT 126L	Using C and C++ for Technology Laboratory	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 227	Introduction to Lasers and Fiber Optics	3
ELDT 227L	Lasers and Fiber Optics Laboratory	1
ELDT 228	Communication Circuits	3
ELDT 228L	Communication Circuits and Certification Laboratory	1
ELDT 229	Advanced Telecommunications Networks	3
ELDT 229L	Advanced Telecommunications Networks Laboratory	1
Total Units = 39		

Associate of Science Degree: Electronic Microprocessor/Microcontroller Design

The Associate of Science in Electronic Microprocessor/Microcontroller Design prepares the student for entry-level technical positions in the microprocessor/microcontroller field. Emphasis is placed on testing and documenting the performance of microcontroller systems, modifying microcontroller circuits for improved performance, and upgrading older systems to newer technology.

Note:

Students who successfully complete the Associate of Science in Electronic Microprocessor/Microcontroller Design are prepared to:

- Interpret the block diagrams of microprocessor/microcontroller systems;
- Modify computer programs for microprocessor/microcontroller systems; and
- Develop circuits to interface motors, displays, sensors, and switching to microprocessor/microcontroller systems.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4

ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELDT 126	Using C AND C++ for Technology	3
ELDT 126L	Using C and C++ for Technology Laboratory	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 225	Microcontrollers	3
ELDT 225L	Microcontrollers Laboratory	1.5
ELDT 232	Advanced Computer Design and Interfacing	4
ELDT 232L	Advanced Computer Designs Laboratory	1.5
Total Units = 37		

Additional general education and graduation requirements for the associate degree are listed in the catalog ACADEMIC REQUIREMENTS section. **The associate degree requires a minimum of 60 units.**

Transfer Information

Common university majors related to the field of Electronics include: Industrial Engineering, Industrial Technology.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Energy and Geo-Environmental Engineering

Award Type	Units
Certificate of Achievement:	
Energy Analysis and Consultation	24
Green Building Energy Professional	18
Associate of Science Degree:	
Energy Analysis and Consultation	24*
Green Building Energy Professional	18*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	

The Energy and Geo-Environmental Engineering (EGEE) Program offers a comprehensive study of various resources that power the modern society. The EGEE Program course of study promotes accelerating clean technology innovation as well as adopting sustainable business practices for the benefit of the economy and the environment. Particular focus is directed toward basic understanding and appreciation of energy and environmental concepts and interconnectedness. The EGEE Program offers a series of complementary certificates that may be used for job placement and advancement in the field. When combined with the appropriate general education and graduation requirements, an EGEE Program certificate leads to an Associate in Science degree that may be used for advanced job placement in the field.

Career Options

Some careers in energy and geo-environmental engineering require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in energy and geo-environmental engineering include: building analyst, green HVAC/R professionals, envelope professionals, energy auditor, solar energy installation managers, solar photovoltaic installer, and weatherization installers and technicians.

Faculty	Office	Telephone
Justin Bond	T-293D	619-388-3875

Certificate of Achievement: Energy Analysis and Consultation

The Associate of Science in Energy Analysis and Consultation provides students with a comprehensive education in energy retrofits, green building construction, and building operations. This curriculum prepares students for a career in the clean energy industry specific to the built environment. This course of study covers topics ranging from energy auditing, energy efficiency, solar energy retrofits, green construction, HVAC integration, and zero-net energy design. This pathway includes preparation for industry-recognized certifications geared towards leading businesses in the energy efficiency and renewable energy industry.

Career Options

Some careers in energy and geo-environmental engineering require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in energy and geo-environmental engineering include: energy consultant, energy manager, energy auditor, building analyst, green HVAC/R professionals, envelope professionals, solar energy installation managers, solar photovoltaic installer, and weatherization installers and technicians, and various other green careers.

Courses Required for the Major:		Units
EGEE 50	Building Science Principles	3
EGEE 55	Air Quality Management and Systems	3
EGEE 70	Energy Industry Principles	3
EGEE 72	Energy Conservation Strategies	3
EGEE 78	Solar Electric Systems	3
EGEE 80	Energy Storage	3
EGEE 85	Energy Standard Practice	3
EGEE 98	Energy Service Entrepreneurship	3
		Total Units = 24

Certificate of Achievement: Green Building Energy Professional

The Certificate of Achievement in Green Building Energy Professional provides students with a whole systems approach to construction and building operations that minimizes the large impact that our built environment has on our environment, as well as the benefits of zero-net energy design and construction. The pathway includes preparation for

various industry-recognized certifications pertaining to the HVAC/R and energy industries.

Courses Required for the Major		Units
EGEE 50	Building Science Principles	3
EGEE 55	Air Quality Management and Systems	3
EGEE 70	Energy Industry Principles	3
EGEE 72	Energy Conservation Strategies	3
EGEE 78	Solar Electric Systems	3
EGEE 80	Energy Storage	3

Total Units = 18

Associate of Science: Energy Analysis and Consultation

The Associate of Science in Energy Analysis and Consultation provides students with a comprehensive education in energy retrofits, green building construction, and building operations. This curriculum prepares students for a career in the clean energy industry specific to the built environment. This course of study covers topics ranging from energy auditing, energy efficiency, solar energy retrofits, green construction, HVAC integration, and zero-net energy design. This pathway includes preparation for industry-recognized certifications geared towards leading businesses in the energy efficiency and renewable energy industry.

Career Options

Some careers in energy and geo-environmental engineering require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in energy and geo-environmental engineering include: energy consultant, energy manager, energy auditor, building analyst, green HVAC/R professionals, envelope professionals, solar energy installation managers, solar photovoltaic installer, weatherization installers and technicians, and various other green careers.

Courses Required for the Major:		Units
EGEE 50	Building Science Principles	3
EGEE 55	Air Quality Management and Systems	3
EGEE 70	Energy Industry Principles	3
EGEE 72	Energy Conservation Strategies	3
EGEE 78	Solar Electric Systems	3
EGEE 80	Energy Storage	3
EGEE 85	Energy Standard Practice	3
EGEE 98	Energy Service Entrepreneurship	3

Total Units = 24

Associate of Science Degree: Green Building Energy Professional

The Associate of Science in Green Building Energy Professional provides students with a whole systems approach to construction and building operations that minimizes the large impact that our built environment has on our environment, as well as the benefits of zero-net energy design and construction. The pathway includes preparation for various industry-recognized certifications pertaining to the HVAC/R and energy industries.

Courses Required for the Major		Units
EGEE 50	Building Science Principles	3
EGEE 55	Air Quality Management and Systems	3
EGEE 70	Energy Industry Principles	3
EGEE 72	Energy Conservation Strategies	3
EGEE 78	Solar Electric Systems	3
EGEE 80	Energy Storage	3

Total Units = 18

Engineering

Award Type	Units
Certificate of Performance:	
Pre-Engineering Technology	12
Robotics Engineering Project Team Level 1	4.5
Certificate of Achievement:	
Drafting Option	19
Associate of Science Degree:	
Engineering	33*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The engineering curriculum is heavily based on mathematics and physical sciences. Students benefit by having access to state-of-the-art CAD/CAM facilities as well as to a high technology center that is at the cutting edge of new technologies, thereby enhancing career choices and rewards. This pre-engineering preparation provides an excellent foundation for transfer to a four-year university as an engineering major.

Program Emphasis

University schools of engineering have similar science and mathematics requirements but may

differ in preparation for various engineering options. Courses offered in the San Diego City College Engineering program meet basic requirements for lower division preparation for California universities. Some universities may also require engineering courses as preparation for specific engineering majors. The Engineering program is designed to prepare students for transfer to California State University and University of California institutions.

Faculty	Office	Telephone
Justin Bond	T-293D	619-388-3875
Farnaz Khoromi	T-373	619-388-3527

Career Options

Most careers in engineering require education beyond the associate degree. A list of career options available to persons with baccalaureate engineering preparation include: aerospace, agricultural, architectural, biomedical, chemical, civil, computer, electrical, environmental, industrial, mechanical and nuclear engineering.

Academic Programs

The associate degree in engineering requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Certificate of Achievement: Drafting Option

Program Learning Outcomes

Upon successful completion, the student will be able to:

- Demonstrate skill in engineering drawing.
- Demonstrate proficiency in at least one three-dimensional engineering design software.
- Prepare reports using software tools.

Courses Required for the Major		Units
ENGE 108	Dimensioning and Tolerancing	3
ENGE 111	Introduction to Computer Aided Design	3
ENGE 151	Computer-Aided Design	2
ENGE 152	Engineering Design	3
MATH 96	Intermediate Algebra with Geometry	5
ENGL 101	Reading and Composition	3

Total Units = 19

Associate of Science Degree: Engineering

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate proficiency in analytical problem solving skills.
- Describe the engineering field from a general perspective.

Courses Required for the Major		Units
CHEM 200	General Chemistry I - Lecture	3
CHEM 200L	General Chemistry I - Laboratory	2
MATH 150	Calculus with Analytic Geometry I	5
MATH 151	Calculus with Analytic Geometry II	4
MATH 252	Calculus with Analytic Geometry III	4
PHYS 195	Mechanics	5
PHYS 196	Electricity and Magnetism	5
PHYS 197	Waves, Optics and Modern Physics	5
Total Units = 33		

Recommended electives: Engineering 200, 240, 250, 260, 270, 290, Mathematics 255, Manufacturing Engineering Technology 115.

Pre-Engineering Technology

Description

The Certificate of Performance in Pre-Engineering Technology prepares students for entry level positions in engineering, manufacturing, and other engineering technology jobs. Courses in this certificate provide basic skills and knowledge in machining, manufacturing, engineering drawing, and strengthens their communication skills in preparation for these positions. These foundation courses prepare students for more academically rigorous engineering technology programs.

Faculty	Office	Telephone
Justin Bond	T-293D	619-388-3875
Farnaz Khoromi	T-373	619-388-3527

Career Options

Most careers in engineering require education beyond the associate degree. This certificate of performance prepares students for entry level positions in: manufacturing, machining, and engineering drafting and design.

Academic Programs

The Pre-Engineering Technology Certificate of Performance requires completion of the courses listed below.

Certificate of Performance: Pre-Engineering Technology*

The Certificate of Performance in Pre-Engineering Technology prepares students for entry level positions in engineering, manufacturing, and other engineering technology jobs. Courses in this certificate provide basic skills and knowledge in machining, manufacturing, engineering drawing, and strengthens their communication skills in preparation for these positions. These foundation courses prepare students for more academically rigorous engineering technology programs.

Career Options

Most careers in engineering require education beyond the associate degree. This certificate of performance prepares students for entry level positions in: manufacturing, machining, and engineering drafting and design.

Courses:	Units
MFET 101 Introduction to Manufacturing Engineering Technology	3
MACT 150 Intro/Computer Numerical Control (CNC)	4
COMS 103 Oral Communication	3
ENGE 151 Computer-Aided Design	2
Total Units = 12	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Robotics Engineering

Description

Robotics in an engineering field that includes the electronic, mechanical and computer science disciplines. Students also participate in documentation, web design, construction, testing and deployment of an autonomous underwater vehicle for competition. The competition is sponsored by the Office of Naval Research (ONR) and the Association for Unmanned Vehicle Systems International (AUVSI).

Goals

To increase interest and skill level in robotic engineering and serve the needs of engineering firms by offering a short term introductory robotic engineering certificate.

Emphasis

Students completing the certificate will have an entry level understanding of the interpersonal skills needed to work with engineers from a variety of disciplines, and the engineering skills needed to produce a design within a fixed time frame.

Career Options

Robotic engineering.

Certificate of Performance: Robotics Engineering Project Team Level 1*

Courses:	Units
ENGE 50A Introduction to Robotics Team Project Design	1.5
ENGE 50B Introduction to Robotics Team Project Construction	1.5
ENGE 50C Introduction to Robotics Team Project Testing and Deployment	1.5
Total Units = 4.5	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Transfer Information

Common university majors related to the field of Engineering include: Agricultural Engineering, Architectural Engineering, Aviation and Aerospace Engineering, Bioengineering and Technology, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science and Engineering, Construction Management, Electrical Engineering, Engineering, Engineering Physics, Engineering Technology, Environmental Engineering, Industrial Engineering and Technology, Manufacturing Engineering, Materials Science and Engineering, Mechanical Engineering, Nuclear Engineering, Structural Engineering.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this

discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

English

Award Type	Units
Certificate of Performance:	
Creative Writing	15
Associate of Arts Degree:	
English	18*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
English	18

Description

The English program provides a breadth of course work designed to improve reading, writing, listening, speaking, and critical thinking skills. English classes range from developmental writing to transfer-level courses in reading and composition, composition and literature, and intermediate composition and critical thinking, as well as a series of sequential creative writing courses. Literature offerings include an introductory course and specialized courses such as British and American Literature and women in literature. Humanities courses explore cultural achievements of world civilizations. English department courses meet English Composition requirements for the associate degree and for University of California, and California State University, Communications in the English Language and Critical Thinking requirements. Literature courses may also meet general education, humanities, multicultural studies requirements, and preparation for transfer.

The English major at the lower-division level emphasizes learning to read more critically and to write more effectively using strategies of narration,

exposition and argument. The English major primarily serves students transferring to colleges and universities where the focus is on academic writing, research, and criticism.

For students seeking a broad appreciation of literature and increased skills in communication. Superior ability to understand and use English is necessary for success in such careers as education, writing, advertising, sales, journalism, law, business and government.

Students planning to transfer to a four-year institution should learn the requirements for that institution.

The goals of the creative writing certificate are to encourage creative writing students to learn and grow as writers while providing them with a writing community, to help prepare students for upper division writing programs, and to give students a program of study that will help guide the development of their writing skills.

Program Emphasis

The English major at the lower-division level emphasizes learning to read more critically and to write more effectively using strategies of narration, exposition and argument. The English major primarily serves students transferring to colleges and universities where the focus is on academic writing, research, and criticism.

Faculty	Office	Telephone
Paul Alexander	AH-517E	619-388-3607
Christy Ball	AH-517E	619-388-3306
Chris Baron	L-209	619-388-3633
Audrey Breay	AH-515E	619-388-3144
Jennifer Boots	AH-517C	619-388-3264
Mona Alsoraimi-Espiritu	AH-515G	619-388-4336
Aileen Gum	AH-515C	619-388-3610
Manuel Paul Lopez	AH-511F	619-388-4368
Nadia Mandilawi	AH-515D	619-388-3420
Hector Martinez	AH-517B	619-388-3585
Norell Martinez	AH-517B	619-388-3086
Patricia McGhee	AH-513E	619-388-3876
Kelly Mayhew	AH-517D	619-388-3136
Elizabeth Meehan	BT-103G	619-388-3509
Jim Miller	AH-517G	619-388-3554

Faculty	Office	Telephone
Oscar Preciado	AH-515B	619-388-3186
Anna Rogers	AH-511E	619-388-3695
Ebony Tyree	AH-511B	619-388-3084
Koralijka Zunic	AH-513B	619-388-3470

Career Options

Most careers require education beyond the associate degree. Strong linguistic, analytical and imaginative skills developed in English help to prepare students for employment in many fields including law, education, communications, governmental affairs, or business.

Academic Programs

The associate degree in English requires completion of the courses listed for the degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Program Learning Outcomes

Students who complete the program will be able to:

- Read and comprehend texts, recognize author strategies, purpose, perspective, and argument, and use critical thinking to evaluate a variety of writing.
- Organize ideas and information and express them clearly and effectively in writing for both academic and workplace contexts for different communicative purposes.
- Apply appropriate research strategies and citation formats.
- Describe, explain, and analyze multiple perspectives on issues in ways that demonstrate global awareness and appreciation of diversity in its many manifestations.
- Apply strategies both inside and outside the classroom that reflect an understanding of the reading and writing processes in order to become life-long learners, critical thinkers, and active citizens.

Students will be assessed through a combination of evaluations which may include projects, written assignments, presentations, tests, quizzes, and group or collaborative activities.

Certificate of Performance: Creative Writing*

Courses:	Units
ENGL 249A Introduction to Creative Writing I	3

Select two courses from the following:

ENGL 249B Introduction to Creative Writing II	3
ENGL 245A Writing Creative Nonfiction	3
ENGL 245B Advanced Creative Nonfiction	3
ENGL 247A Writing Seminar - Poetry	3
ENGL 252A Fundamentals of Fiction Writing	3
ENGL 252B Intermediate Fiction Writing	3
DRAM 108 Playwriting	3
FJMP 120 Introduction to Screenwriting	3

Select two courses from the following:

ENGL 208 Introduction to Literature	3
ENGL 210 American Literature I	3
ENGL 211 American Literature II	3
ENGL 215 English Literature I: 800-1799	3
ENGL 216 English Literature II: 1800 - Present	3
ENGL 220 Masterpieces of World Literature I: 1500 BCE - 1600 CE	3
ENGL 221 Masterpieces of World Literature II: 1600 - Present	3
ENGL 240 Shakespeare	3
BLAS 155 African American Literature	3
CHIC 135 Chicana/o Literature	3

Total Units = 15

Recommended Electives: English 36.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Associate of Arts Degree: English

English 205 meets SDSU/CSU critical thinking requirement. Not all courses are offered at each campus. For graduation requirements see Academic Requirements section of catalog. The associate degree requires a minimum of 60 units. Transferable Units as Prep for the Major at SDSU: SDSU will accept a total of 12 units of literature and creative writing as preparation for the English Major. This includes any combination of lower division literature courses and up to six units of creative writing courses. Note: English 215 and 216 are required by SDSU and UCSD. Other course electives are available at Mesa and Miramar Colleges.

Courses Required for the Major:		Units
ENGL 101	Reading and Composition	3
or		
ENGL 105	Composition and Literature	3
ENGL 205	Critical Thinking and Intermediate Composition	3
ENGL 215	English Literature I: 800–1799	3
ENGL 216	English Literature II: 1800 – Present	3

Select three units from the following (recommended sequence for UC Transfer):

ENGL 208	Introduction to Literature	3
ENGL 220	Masterpieces of World Literature I: 1500 BCE – 1600 CE	3
ENGL 221	Masterpieces of World Literature II: 1600 – Present	3

Select three units from the following (recommended sequence for UC Transfer):

ENGL 210	American Literature I	3
ENGL 211	American Literature II	3
ENGL 245A	Writing Creative Nonfiction	3
ENGL 247A	Writing Seminar - Poetry	3
ENGL 249A	Introduction to Creative Writing I	3
ENGL 252A	Fundamentals of Fiction Writing	3

Total Units = 18

Note: English 205 meets SDSU/CSU critical thinking requirement.

Note: English 215 and 216 are required by SDSU and UCSD. Other course electives are available at Mesa and Miramar Colleges.

For graduation requirements see **Requirements for the Associate Degree** on page 100.

Electives as needed to meet minimum of 60 units required for the degree.

Courses designed to support this and other majors: ELAC 15, 25, 23, 35, 33, 145.

Transferable Units as Prep for the Major at SDSU
SDSU will accept a total of 12 units of literature and creative writing as preparation for the English Major. This includes any combination of lower division literature courses and up to six units of creative writing courses.

Associate in Arts in English for Transfer Degree:

The Associate in Arts in English for Transfer Degree is intended for students who plan to complete a bachelor's degree in English or a related major in the California State University (CSU) system. It

is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer

Curriculum pattern (IGETC; see page 126 for more information).

Additional Notes:

* This course also fulfills general education requirements for the CSU GE or IGETC pattern.

Career Options

Careers related to this field typically require education beyond the associate degree level and some may require graduate work.

Courses Required for the Major:

	Units
ENGL 205 Critical Thinking and Intermediate Composition	3
ENGL 208 Introduction to Literature	3

Select four courses (12 units) from the following:

ENGL 210 American Literature I	3
ENGL 211 American Literature II	3
ENGL 215 English Literature I: 800–1799	3
ENGL 216 English Literature II: 1800 – Present	3
ENGL 220 Masterpieces of World Literature I: 1500 BCE – 1600 CE	3
ENGL 221 Masterpieces of World Literature II: 1600 – Present	3
ENGL 249A Introduction to Creative Writing I	3

Total Units = 18

For graduation requirements see **Requirements for the Associate Degree** on page 100.

Note: It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).

Transfer Information

Common university majors related to the field of English include: Creative Writing, Comparative Literature, English, Humanities, Language Studies, Linguistics, Literature.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on

transfer programs and procedures is available in the Transfer Programs section of the catalog.

English Language Acquisition

Award Type	Units
Certificate of Performance: English Language Acquisition	9

The English Language Acquisition (ELAC) program is committed to supporting non-native speakers of English in developing their academic English Language skills to enable them to succeed in college courses. We offer a range of courses designed to engage students from low-intermediate to advanced levels of English. Core courses consist of integrated academic reading, writing, and grammar as well as academic listening and speaking. Specialized courses in areas such as pronunciation and focused grammar are also offered to support the individual needs of each student.

Then ELAC program consists of four levels. Students are placed at a Skill Level/Milestone based on a self-guided assessment.

Certificate of Performance: English Language Acquisition

The English Language Acquisition (ELAC) Certificate of Performance recognizes an advanced level of English language achievement for students whose first language is not English. Students who earn this certificate have successfully completed advanced ELAC coursework in grammar, writing conventions, reading skills, and critical thinking.

Note: Upon successful completion of the Certificate of Performance, students should be able to:

Analyze and synthesize the written works of others and compose an organized, multi-paragraph piece in response.

Revise and reflect on own written work that demonstrates an advanced level of reading, writing, and critical thinking.

Courses Required for the Major:		Units
ELAC 145	Integrated Reading, Writing, and Grammar III	6

Select three units from the following:		
ELAC 5B	English Language Grammar - High-Intermediate/Advanced	1-2
ELAC 7	English Pronunciation	1-2
ELAC 33	Academic Listening and Speaking II	3
Total Units = 9		

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Exercise Science

Award Type	Units
Certificate of Performance:	
Health and Wellness Coaching	10-12
Certificate of Achievement:	
Personal Trainer	20-23
Associate in Arts for Transfer Degree:	
Kinesiology	22

Faculty	Office	Telephone
Dede Bodnar	P3-203	619-388-3544
Christopher Brown	P208	619-388-3705
Mitch Charlens	P3-204	619-388-3703
Gabriela Hogan	P209	619-388-3422
Paul Greer	FTCTR	619-388-3704
Andrea Milburn	P207	619-388-3121
LeeAnn Taylor	P204	619-388-3890

Description

The Health and Exercise Science program at San Diego City College (SDCC) offers certificates of performance and achievement, and associate degrees in the field of health, exercise science, nutrition, and fitness. The program's mission is to provide a research-based practical approach to the multi-dimensional study of human movement, while engaging students in hands-on experiences to promote critical thinking, effective communication, and a comprehensive understanding of the health and exercise science discipline. The program meets this mission by offering a variety of exercise science and health classes that can help meet the needs of our diverse community. The Health and Exercise Science program teaches students to lead by example in promoting a healthy lifestyle. It enables students to develop knowledge, skills, and abilities in exercise planning, participation, and behavior change not only for themselves, but also to the campus and community. The program embraces both the challenge to inspire our students to be individual improvement of health and wellness, and encourages our students to share their information and experience within the community.

Career Options

Most careers in fitness require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list, but some of

the most common career options with a degree in fitness include: fitness instruction, personal training, and sports coaching.

Program Learning Outcomes

Athletics

Upon successful completion the student/athlete will improve their level of physical fitness, develop greater skill, and improve in the mental, psychological, and social aspects of their sport. They will create an educational plan with a counselor and develop recruiting tools to aid in transfer to a four year institution.

Exercise Science

Upon successful completion the student will improve in one or more of the 5 "Health-Related" Components of Fitness.

Health

Upon successful completion the student will be able to identify the various dimensions of wellness, their interaction with one another, and then utilize strategies to create balance and successfully navigate life.

Personal Trainer

Upon successful completion the student will possess an applied understanding of physiology, kinesiology and nutrition as it applies to physical fitness. Students will demonstrate the ability to create safe and effective exercise/fitness programs for individuals or groups that meet the needs of the target audience.

Note:

EXERCISE SCIENCE CLASSES/INTERCOLLEGIATE SPORTS DISCLAIMER: Participation in all sports and exercise science activities involves certain inherent risks. Risks may include, but are not limited to, neck and spinal injuries that may result in paralysis or brain injury, injury to bones, joints, ligaments, muscles, tendons, and other aspects of the muscular skeleton system, and serious injury, or impairment, to other aspects of the body and general health, including death. The San Diego Community College District, its officers, agents, and employees are not responsible for the inherent risks associated with participation in exercise science classes/intercollegiate sports. Students are strongly advised to consult a physician prior to participating in any exercise science activity.

Certificate of Performance: Health and Wellness Coaching*

The Health and Wellness Coaching certificate prepares the student for the American Council on Exercise's (ACE) national certification examination for health coaching. This is a valuable supplemental certificate to a personal training or group exercise certification.

The Certificate of Performance in Health and Wellness Coaching is designed to prepare students for careers in health and wellness coaching. Emphasis is placed on providing students with effective communication strategies for explaining and applying the basic principles of physiology and nutrition, as well as emotional, spiritual, social, cognitive, and environmental health. Students create and implement safe and effective healthy eating strategies and exercise plans based on client assessment data. Students also demonstrate effective approaches to modifying behavior-change programs to promote program adherence based on client needs.

Upon successful completion of this program, the student is able to apply knowledge and skill in communication, behavior change, nutrition, weight management, exercise program development, exercise leadership, and disease/injury prevention to health and wellness coaching clients.

To be eligible to take the American Council on Exercise National Certification Examination in Health Coaching, students need to have completed one of the following:

- Pass an accredited certification exam through the National Commission for Certifying Agencies (NCCA);
- Obtain a license in fitness, nutrition, health care, wellness, human resources or a related field;
- Earn an associate's degree or higher from an accredited college or university in fitness, exercise science, nutrition, health care, wellness, human resources or a related field;
- Complete at least two years of comparable work experience in any of the industries specified above.

Courses:		Units
EXSC 294	Health and Wellness Coaching	3
EXSC 284	Fitness and Sports Nutrition	2
or		

NUTR 170	Nutrition and Fitness	3
HEAL 101	Health and Lifestyle	3
EXSC 270	Exercise Science Internship / Work Experience	1 - 2

Complete one (1) unit from the following:

EXSC 123	Adapted Physical Fitness	0.5 – 1
EXSC 124A	Core and Cardio Fitness I	0.5 – 1
EXSC 125A	Aerobic Dance I	0.5 – 1
EXSC 126A	Cardio Conditioning I	0.5 – 1
EXSC 127A	Cardio Kickboxing I	0.5 – 1
EXSC 129A	Step Aerobics I	0.5 – 1
EXSC 134	Adapted Weight Training	0.5 – 1
EXSC 135A	Individual Conditioning I	0.5 – 1
EXSC 139A	Weight Training I	0.5 – 1
EXSC 142	Hiking for Fitness I- Fundamentals	0.5 - 2
EXSC 145A	Yoga I	0.5 – 1
EXSC 147A	Kickboxing I	0.5 – 1
EXSC 148A	Mixed Martial Arts I	0.5 – 1

Total Units = 10–12

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Personal Trainer

This program trains students to be personal trainers and group exercise leaders. Emphasis is placed on the principles of exercise and physical conditioning, techniques of leading individual and group exercise classes, assessment protocols, strategies for working with special populations, appropriate methods to establishing healthy behavior, and the designing of personalized exercise programs. Students learn to develop safe, effective exercise plans for a variety of clients.

The fitness industry continues to experience growth and has an ongoing need for professionally qualified group exercise instructors and personal trainers in health clubs, gyms, fitness centers, and sports medicine clinics.

This program prepares students for the American College of Sports Medicine (ACSM), American Council of Exercise (ACE), National Academy of Sports Medicine (NASM), and many other National Commission for Certifying Agencies (NCCA) accredited Personal Trainer and Group Exercise Instructor certification exams. Please note that

students enrolled in an occupational program must earn a grade of "C" or better in courses required for the major.

Courses Required for the Major:		Units
EXSC 242B	Care and Prevention of Injuries	3
EXSC 280	Applied Exercise Physiology	2
EXSC 281	Applied Kinesiology	2
EXSC 282	Techniques of Weight Training	2
EXSC 283	Exercise and Fitness Assessment	2
EXSC 285	Exercise for Special Populations	2
EXSC 286	Techniques of Exercise Leadership	2
EXSC 288	Personal Training Professional Preparation	1
EXSC 270	Exercise Science Internship / Work Experience	1–4
NUTR 170	Nutrition and Fitness	3
Total Units = 20–23		

Associate in Arts in Kinesiology for Transfer Degree:

The Associate in Arts in Kinesiology for Transfer Degree is intended for students who plan to complete a bachelor's degree in Kinesiology or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at any CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

* Course also fulfills general education requirements for the CSU GE or IGETC pattern.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Electives as needed to meet maximum of 60 CSU-transferable units required for the degree.

Goals

The Associate in Arts in Kinesiology for Transfer Degree is intended for students who plan to complete a bachelor's degree in Kinesiology or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Career Options

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
BIOL 230	Human Anatomy*	4
BIOL 235	Human Physiology*	4
EXSC 241B	Introduction to Kinesiology	3

Select a minimum of one course from any three of the following areas for a maximum of 3 units:

Combatives

EXSC 147A	Kickboxing I	1
EXSC 148A	Mixed Martial Arts I	1

Fitness

EXSC 125A	Aerobic Dance I	1
EXSC 125B	Aerobic Dance II	1
EXSC 125C	Aerobic Dance III	1
EXSC 125D	Aerobic Dance IV	1
EXSC 127A	Cardio Kickboxing I	1
EXSC 129A	Step Aerobics I	1
EXSC 135A	Individual Conditioning I	1
EXSC 139A	Weight Training I	1
EXSC 139B	Weight Training II	1
EXSC 139C	Weight Training III	1
EXSC 139D	Weight Training IV	1
EXSC 145A	Yoga I	1

Individual Sports

EXSC 154A	Badminton I	1
EXSC 166A	Golf I	1
EXSC 178A	Tennis I	1

Team Sports

EXSC 158A	Basketball I	1
EXSC 174A	Soccer I	1
EXSC 176A	Softball I	1
EXSC 182A	Volleyball I	1

Select two of the following courses (minimum 8 units)

CHEM 200	General Chemistry I – Lecture	3
and		
CHEM 200L	General Chemistry I – Laboratory	2
MATH 119	Elementary Statistics or	
PSYC 258	Behavioral Science Statistics	3

Total Units = 22

For graduation requirements see **Requirements for the Associate Degree** on page 100.

Film, Journalism, and Media Production

Award Type	Units
Certificate of Performance:	
Film Production	9
Media Production	9
Multimedia Journalism	9
Radio and Podcast	9
Certificate of Achievement:	
Film Production	18
Media Production	18
Multimedia Journalism	18
Radio and Podcast	18
Associate of Science Degree:	
Film Production	21*
Media Production	21*
Multimedia Journalism	21*
Radio and Podcast	21*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Science for Transfer Degree:	
Film, Television, and Electronic Media	18

Description

The Film, Journalism, and Media Production (FJMP) program at San Diego City College provides the opportunity for students to develop fundamental skills in these fields for employment in media and related industries or transfer to a four-year institution. The program includes all aspects of multiplatform content creation and production, including fiction and documentary films, journalism, broadcast news, radio, podcast, and media production. Students also develop skills to think critically, problem-solve efficiently, and communicate ideas effectively. Courses address legal and ethical issues in media and include the implications of social and cultural constructs, economics, technology, and equity and social justice. Students gain hands-on experience working as part of the online platform City Times Media with its award-winning partners in state-of-the-art facilities.

Career Options

City College offers you the opportunity to gain hands-on experience in a wide range of areas in film, journalism, and media production. Potential jobs include video editor, multimedia journalist, digital content producer, motion picture or documentary film writer/producer, director, videographer, motion graphics designer, art director, production assistant, news producer, on-air talent, news reporter, news writer, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, sound technician, lighting technician, assistant director, set designer, studio manager, and floor director. The skills acquired may lead to employment, freelance work, or business ownership.

Program Learning Outcomes

Upon successful completion of one of the degrees and/or certificates the student should be able to:

- Apply tools and technologies appropriate for the media professions in which they work.
- Write in forms and styles appropriate for media professions, audiences, and purposes they serve.
- Conduct research and evaluate information by methods appropriate to the media professions in which they work.
- Apply principles of diversity, equity, and media law and ethics.

Faculty	Office	Telephone
Chris Acedo	C-205E	619-388-3042
Cy Kuckenbaker	C-205D	619-388-3041

Certificate of Performance*: Film Production

The Certificate of Performance in Film Production offers hands-on training and experience in the fundamentals of filmmaking, using current and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on producing, writing, directing, and editing. Other topics addressed include lighting, art directing, and audio. Students can contribute to the award-winning City Times Media platform and its independent film partner. This program is designed for students interested in enhancing their skills and knowledge of filmmaking, students majoring in Film Production, and for those seeking entry-level employment in related industries.

The skills acquired with this certificate may lead to employment, freelance work, or business ownership. These jobs include, but are not limited to, production assistants, production audio technicians, art directors, screenwriters, directors, producers, editors, grips, and gaffers.

Courses:		Units
FJMP 100	Introduction to Cinema	3
Complete 6 units from the following:		
FJMP 110	Introduction to Video Editing	3
FJMP 111	Single Camera Production	3
FJMP 112	Introduction to Audio Production	3
FJMP 120	Introduction to Screenwriting	3
FJMP 121	Fiction Film Production	3
FJMP 122	Documentary Film Production	3
FJMP 123	The Producer's Role in Film	3
FJMP 124	Video Motion Graphics	3
DRAM 119	Film and Television Performance	3
FJMP 145	Art Direction for Film and Media Production	3
FJMP 146	Lighting for Film and Media Production	3
		Total Units = 9

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance*: Media Production

The Certificate of Performance in Media Production offers hands-on training and experience in the fundamentals of content creation, using new and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on production, writing, audio recording, and video editing. Other topics addressed include voice-over performance, audio editing, and radio station and podcast marketing. Students can contribute to the award-winning City Times Media platform and its many partners, including TV news, digital news, radio/podcast, and independent film. This program is designed for students interested in enhancing their skills and knowledge of media production, students majoring in Media Production, and for those seeking entry-level employment in related industries.

The skills acquired with this certificate may lead to employment, freelance assignments, or corporate

media work. These jobs include, but are not limited to, multimedia producers, social media content producers, directors, writers, reporters, program assistants, camera operators, videographers, audio technicians, studio technicians, video editors, and motion graphics designers.

Courses:		Units
FJMP 101	Introduction to Mass Media	3
Complete 6 units from the following:		
FJMP 110	Introduction to Video Editing	3
FJMP 111	Single Camera Production	3
FJMP 112	Introduction to Audio Production	3
FJMP 122	Documentary Film Production	3
FJMP 124	Video Motion Graphics	3
FJMP 130	Newswriting for Multiplatform Journalism	3
FJMP 131	Multimedia Journalism Reporting	3
FJMP 132	Multiplatform Journalism Production	3
FJMP 133	Broadcast News Production	3
DRAM 106	Voice-Over Performance	3
FJMP 141	Audio Storytelling for Radio and Podcast	3
FJMP 142	Radio and Podcast Production	3
FJMP 143	On-Camera Performance	3
FJMP 144	Multi-Camera Studio Operations	3
		Total Units = 9

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance*: Multimedia Journalism

The Certificate of Performance in Multimedia Journalism offers hands-on training and experience in the fundamentals of journalism, using current and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on planning, writing, producing, directing, editing, and performing across platforms. Other topics addressed include social media production and management, photojournalism and documentary photography, and studio operations. Students contribute to the award-winning City Times Media platform and its partners, including digital news, magazine, TV news, radio podcast and independent film. This program is designed for students interested in enhancing their skills and knowledge of journalism, students majoring

in Journalism, and for those seeking entry-level employment in media-related industries.

The skills acquired with this certificate may lead to employment, freelance work, or business ownership. These jobs include, but are not limited to, multimedia journalist, digital content producer, production assistant, news producer, on-air talent, news reporter, news writer, public information officer, communications director, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, and sound technician.

Courses:	Units
FJMP 102 Social Media in the Digital Age	3
Complete six (6) units from the following:	
FJMP 130 Newswriting for Multiplatform Journalism	3
FJMP 131 Multimedia Journalism Reporting	3
FJMP 132 Multiplatform Journalism Production	3
FJMP 133 Broadcast News Production	3
FJMP 134 Multiplatform Magazine Production	3
PHOT 215 Photojournalism and Documentary Photography	3
FJMP 142 Radio and Podcast Production	3
FJMP 143 On-Camera Performance	3
FJMP 144 Multi-Camera Studio Operations	3
FJMP 232A Multiplatform Journalism Workshop I	3
FJMP 233A Broadcast News Workshop I	3
Total Units = 9	

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance*: Radio and Podcast

The Certificate of Performance in Radio and Podcast offers hands-on training and experience in the fundamentals of radio and podcast production principles, using new and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on production, writing, on-air skills, and audio storytelling. Other topics addressed include voice-over performance, audio editing, and radio station and podcast marketing. Students can contribute to the City Times Media platform and CT Sound, the award-winning student radio station broadcast

on 88.3 KSDS HD-2. This program is designed for students interested in enhancing their skills and knowledge of radio and podcast production, students majoring in Radio and Podcast, and for those seeking entry-level employment in related industries.

The skills acquired with this certificate may lead to employment, freelance work or business ownership. These jobs include, but are not limited to, multimedia producers, directors, radio and podcast hosts, writers, reporters, program managers, sound board operators, sound designers, sound technicians, audio editors, and broadcast news analysts.

Courses:	Units
FJMP 101 Introduction to Mass Media	3
Complete six (6) units from the following:	
FJMP 112 Introduction to Audio Production	3
FJMP 130 Newswriting for Multiplatform Journalism	3
FJMP 131 Multimedia Journalism Reporting	3
DRAM 106 Voice-Over Performance	3
FJMP 141 Audio Storytelling for Radio and Podcast	3
FJMP 142 Radio and Podcast Production	3
Total Units = 9	

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Film Production

The Certificate of Achievement in Film Production offers hands-on training and experience in the fundamentals of filmmaking, using current and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on producing, writing, directing, and editing. Other topics addressed include lighting, art directing, and audio. Students can contribute to the award-winning City Times Media platform and its independent film partner. This program is designed for students interested in enhancing their skills and knowledge of filmmaking, students majoring in Film Production, and for those seeking entry-level employment in related industries.

The skills acquired with this certificate may lead to employment, freelance work, or business ownership. These jobs include, but are not limited to, production assistants, production audio technicians, art directors, screenwriters, directors, producers, editors, grips, and gaffers.

Career Options

City College offers you the opportunity to gain hands-on experience in a wide range of areas in film, journalism, and media production. Potential jobs include video editor, multimedia journalist, digital content producer, motion picture or documentary film writer/producer, director, videographer, motion graphics designer, art director, production assistant, news producer, on-air talent, news reporter, news writer, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, sound technician, lighting technician, assistant director, set designer, studio manager, and floor director. The skills acquired may lead to employment, freelance work, or business ownership.

Courses Required for the Major:		Units
FJMP 110	Introduction to Video Editing	3
FJMP 120	Introduction to Screenwriting	3
FJMP 112	Introduction to Audio Production	3
or		
FJMP 124	Video Motion Graphics	3
FJMP 121	Fiction Film Production	3
or		
FJMP 122	Documentary Film Production	3
FJMP 145	Art Direction for Film and Media Production	3
or		
FJMP 146	Lighting for Film and Media Production	3

Complete three (3) units from the following:

FJMP 111	Single Camera Production	3
FJMP 123	The Producer's Role in Film	3
DRAM 119	Film and Television Performance	3
FJMP 211	Single Camera Production Workshop	3
FJMP 221	Fiction Film Production Workshop	3
FJMP 222	Documentary Film Production Workshop	3

Total Units = 18

Certificate of Achievement: Media Production

The Certificate of Achievement in Media Production offers hands-on training and experience in the fundamentals of content creation, using new and

emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on production, writing, audio recording, and video editing. Other topics addressed include voice-over performance, audio editing, and radio station and podcast marketing. Students can contribute to the award-winning City Times Media platform and its many partners, including TV news, digital news, radio/podcast, and independent film. This program is designed for students interested in enhancing their skills and knowledge of media production, students majoring in Media Production, and for those seeking entry-level employment in related industries.

The skills acquired with this certificate may lead to employment, freelance assignments, or corporate media work. These jobs include, but are not limited to, multimedia producers, social media content producers, directors, writers, reporters, program assistants, camera operators, videographers, audio technicians, studio technicians, video editors, and motion graphics designers.

Career Options

City College offers you the opportunity to gain hands-on experience in a wide range of areas in film, journalism, and media production. Potential jobs include video editor, multimedia journalist, digital content producer, motion picture or documentary film writer/producer, director, videographer, motion graphics designer, art director, production assistant, news producer, on-air talent, news reporter, news writer, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, sound technician, lighting technician, assistant director, set designer, studio manager, and floor director. The skills acquired may lead to employment, freelance work, or business ownership.

Courses Required for the Major:		Units
FJMP 112	Introduction to Audio Production	3
FJMP 120	Introduction to Screenwriting	3
or		
FJMP 130	Newswriting for Multiplatform Journalism	3
FJMP 122	Documentary Film Production	3
or		
FJMP 132	Multiplatform Journalism Production	3
or		
FJMP 133	Broadcast News Production	3

FJMP 142	Radio and Podcast Production	3
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Complete six (6) units from the following:

FJMP 110	Introduction to Video Editing	3
FJMP 111	Single Camera Production	3
FJMP 144	Multi-Camera Studio Operations	3

Complete three (3) units from the following:

FJMP 123	The Producer's Role in Film	3
FJMP 124	Video Motion Graphics	3
FJMP 131	Multimedia Journalism Reporting	3
FJMP 134	Multiplatform Magazine Production	3
DRAM 106	Voice-Over Performance	3
FJMP 141	Audio Storytelling for Radio and Podcast	3
FJMP 143	On-Camera Performance	3
FJMP 145	Art Direction for Film and Media Production	3
FJMP 146	Lighting for Film and Media Production	3
FJMP 211	Single Camera Production Workshop	3
FJMP 222	Documentary Film Production Workshop	3
FJMP 232A	Multiplatform Journalism Workshop I	3
FJMP 233A	Broadcast News Workshop I	3
FJMP 242A	Radio and Podcast Workshop I	3

Total Units = 18

news reporter, news writer, public information officer, communications director, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, and sound technician.

Courses Required for the Major: Units

FJMP 130	Newswriting for Multiplatform Journalism	3
FJMP 131	Multimedia Journalism Reporting	3
FJMP 132	Multiplatform Journalism Production	3
or		
FJMP 133	Broadcast News Production	3
FJMP 143	On-Camera Performance	3
or		
FJMP 144	Multi-Camera Studio Operations	3

Complete six (6) units from the following:

FJMP 134	Multiplatform Magazine Production	3
PHOT 215	Photojournalism and Documentary Photography	3
FJMP 142	Radio and Podcast Production	3
FJMP 232A	Multiplatform Journalism Workshop I	3
FJMP 232B	Multiplatform Journalism Workshop II	3
FJMP 233A	Broadcast News Workshop I	3
FJMP 233B	Broadcast News Workshop II	3

Total Units = 18

Certificate of Achievement: Multimedia Journalism

The Certificate of Achievement in Multimedia Journalism offers hands-on training and experience in the fundamentals of journalism, using current and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on planning, writing, producing, directing, editing, and performing across platforms. Other topics addressed include social media production and management, photojournalism and documentary photography, and studio operations. Students contribute to the award-winning City Times Media platform and its partners, including digital news, magazine, TV news, radio podcast and independent film. This program is designed for students interested in enhancing their skills and knowledge of journalism, students majoring in Journalism, and for those seeking entry-level employment in media-related industries.

The skills acquired with this certificate may lead to employment, freelance work, or business ownership. These jobs include, but are not limited to, multimedia journalist, digital content producer, production assistant, news producer, on-air talent,

Certificate of Achievement: Radio and Podcast

The Certificate of Achievement in Radio and Podcast offers hands-on training and experience in the fundamentals of radio and podcast production principles, using new and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on production, writing, on-air skills, and audio storytelling. Other topics addressed include voice-over performance, audio editing, and radio station and podcast marketing. Students can contribute to the City Times Media platform and CT Sound, the award-winning student radio station broadcast on 88.3 KSDS HD-2. This program is designed for students interested in enhancing their skills and knowledge of radio and podcast production, students majoring in Radio and Podcast, and for those seeking entry-level employment in related industries.

The skills acquired with this certificate may lead to employment, freelance work or business ownership. These jobs include, but are not limited to, multimedia producers, directors, radio and podcast hosts, writers, reporters, program managers,

sound board operators, sound designers, sound technicians, audio editors, and broadcast news analysts.

Career Options

City College offers you the opportunity to gain hands-on experience in a wide range of areas in film, journalism, and media production. Potential jobs include video editor, multimedia journalist, digital content producer, motion picture or documentary film writer/producer, director, videographer, motion graphics designer, art director, production assistant, news producer, on-air talent, news reporter, news writer, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, sound technician, lighting technician, assistant director, set designer, studio manager, and floor director. The skills acquired may lead to employment, freelance work, or business ownership.

Courses Required for the Major:		Units
FJMP 112	Introduction to Audio Production	3
FJMP 120	Introduction to Screenwriting	3
or		
FJMP 130	Newswriting for Multiplatform Journalism	3
DRAM 106	Voice-Over Performance	3
FJMP 142	Radio and Podcast Production	3
or		
FJMP 132	Multiplatform Journalism Production	3
Complete six (6) units from the following:		
FJMP 131	Multimedia Journalism Reporting	3
FJMP 141	Audio Storytelling for Radio and Podcast	3
FJMP 242A	Radio and Podcast Workshop I	3
FJMP 242B	Radio and Podcast Workshop II	3
		Total Units = 18

**Associate of Science Degree:
Film Production**

The Associate of Science Degree in Film Production offers hands-on training and experience in the fundamentals of filmmaking, using current and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on producing, writing, directing, and editing. Other topics addressed include lighting, art directing, and audio. Students can contribute to the award-winning City Times Media platform and its independent film partner. This program is designed for students interested in enhancing their skills and knowledge of filmmaking, students majoring in

Film Production, and for those seeking entry-level employment in related industries.

The skills acquired with this A.S. Degree may lead to employment, freelance work, or business ownership. These jobs include, but are not limited to, production assistants, production audio technicians, art directors, screenwriters, directors, producers, editors, grips, and gaffers.

Career Options:

City College offers you the opportunity to gain hands-on experience in a wide range of areas in film, journalism, and media production. Potential jobs include video editor, multimedia journalist, digital content producer, motion picture or documentary film writer/producer, director, videographer, motion graphics designer, art director, production assistant, news producer, on-air talent, news reporter, news writer, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, sound technician, lighting technician, assistant director, set designer, studio manager, and floor director. The skills acquired may lead to employment, freelance work, or business ownership.

Courses Required for the Major:		Units
FJMP 100	Introduction to Cinema	3
or		
FJMP 101	Introduction to Mass Media	3
FJMP 110	Introduction to Video Editing	3
FJMP 120	Introduction to Screenwriting	3
FJMP 112	Introduction to Audio Production	3
or		
FJMP 124	Video Motion Graphics	3
FJMP 121	Fiction Film Production	3
or		
FJMP 122	Documentary Film Production	3
FJMP 145	Art Direction for Film and Media Production	3
or		
FJMP 146	Lighting for Film and Media Production	3
Complete three (3) units from the following:		
FJMP 111	Single Camera Production	3
FJMP 123	The Producer's Role in Film	3
DRAM 119	Film and Television Performance	3
FJMP 211	Single Camera Production Workshop	3
FJMP 221	Fiction Film Production Workshop	3
FJMP 222	Documentary Film Production Workshop	3
		Total Units = 21

Associate of Science Degree: Journalism

The Associate of Science Degree in Journalism offers hands-on training and experience in the fundamentals of journalism, using current and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on planning, writing, producing, directing, editing, and performing across platforms. Other topics addressed include social media production and management, photojournalism and documentary photography, and studio operations. Students contribute to the award-winning City Times Media platform and its partners, including digital news, magazine, TV news, radio podcast and independent film. This program is designed for students interested in enhancing their skills and knowledge of journalism, students majoring in Journalism, and for those seeking entry-level employment in media-related industries.

The skills acquired with this A.S. degree may lead to employment, freelance work, or business ownership. These jobs include, but are not limited to, multimedia journalist, digital content producer, production assistant, news producer, on-air talent, news reporter, news writer, public information officer, communications director, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, and sound technician.

Courses Required for the Major:		Units
FJMP 101	Introduction to Mass Media	3
FJMP 102	Social Media in the Digital Age	3
FJMP 130	Newswriting for Multiplatform Journalism	3
FJMP 131	Multimedia Journalism Reporting	3
FJMP 132	Multiplatform Journalism Production	3
or		
FJMP 133	Broadcast News Production	3
FJMP 143	On-Camera Performance	3
or		
FJMP 144	Multi-Camera Studio Operations	3

Complete three (3) units from the following:

FJMP 132	Multiplatform Journalism Production	3
FJMP 133	Broadcast News Production	3
FJMP 134	Multiplatform Magazine Production	3
PHOT 215	Photojournalism and Documentary Photography	3
FJMP 142	Radio and Podcast Production	3
FJMP 232A	Multiplatform Journalism Workshop I	3
FJMP 232B	Multiplatform Journalism Workshop II	3

FJMP 233A	Broadcast News Workshop I	3
FJMP 233B	Broadcast News Workshop II	3

Total Units = 21

Associate of Science Degree: Media Production

The Associates of Science Degree in Media Production offers hands-on training and experience in the fundamentals of content creation, using new and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on production, writing, audio recording, and video editing. Other topics addressed include voice-over performance, audio editing, and radio station and podcast marketing. Students can contribute to the award-winning City Times Media platform and its many partners, including TV news, digital news, radio/podcast, and independent film. This program is designed for students interested in enhancing their skills and knowledge of media production, students majoring in Media Production, and for those seeking entry-level employment in related industries.

The skills acquired with this AS Degree may lead to employment, freelance assignments, or corporate media work. These jobs include, but are not limited to, social media content producers, multimedia producers, directors, writers, reporters, program assistants, camera operators, videographers, audio technicians, studio technicians, video editors, and motion graphics designers.

Career Options

City College offers you the opportunity to gain hands-on experience in a wide range of areas in film, journalism, and media production. Potential jobs include video editor, multimedia journalist, digital content producer, motion picture or documentary film writer/producer, director, videographer, motion graphics designer, art director, production assistant, news producer, on-air talent, news reporter, news writer, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, sound technician, lighting technician, assistant director, set designer, studio manager, and floor director. The skills acquired may lead to employment, freelance work, or business ownership.

Courses Required for the Major:		Units
FJMP 101	Introduction to Mass Media	3
FJMP 112	Introduction to Audio Production	3
FJMP 120	Introduction to Screenwriting	3

or		
FJMP 130	Newswriting for Multiplatform Journalism	3

Complete six (6) units from the following:

FJMP 110	Introduction to Video Editing	3
FJMP 111	Single Camera Production	3
FJMP 144	Multi-Camera Studio Operations	3

Complete three (3) units from the following:

FJMP 122	Documentary Film Production	3
FJMP 132	Multiplatform Journalism Production	3
FJMP 133	Broadcast News Production	3
FJMP 142	Radio and Podcast Production	3

Complete three (3) units from the following:

FJMP 123	The Producer's Role in Film	3
FJMP 124	Video Motion Graphics	3
FJMP 131	Multimedia Journalism Reporting	3
FJMP 134	Multiplatform Magazine Production	3
DRAM 106	Voice-Over Performance	3
FJMP 141	Audio Storytelling for Radio and Podcast	3
FJMP 143	On-Camera Performance	3
FJMP 145	Art Direction for Film and Media Production	3
FJMP 146	Lighting for Film and Media Production	3
FJMP 211	Single Camera Production Workshop	3
FJMP 222	Documentary Film Production Workshop	3
FJMP 232A	Multiplatform Journalism Workshop I	3
FJMP 233A	Broadcast News Workshop I	3
FJMP 242A	Radio and Podcast Workshop I	3

Total Units = 21

Associate of Science Degree: Radio and Podcast

The Associate of Science Degree in Radio and Podcast offers hands-on training and experience in the fundamentals of radio and podcast production principles, using new and emerging multimedia tools and technologies in our state-of-the-art facilities. The program emphasis is placed on production, writing, on-air skills, and audio storytelling. Other topics addressed include voice-over performance, audio editing, and radio station and podcast marketing. Students can contribute to the City Times Media platform and CT Sound, the award-winning student radio station broadcast on 88.3 KSDS HD-2. This program is designed for students interested in enhancing their skills and knowledge of radio and podcast production, students majoring in Radio and Podcast, and for

those seeking entry-level employment in related industries.

The skills acquired with this AS degree may lead to employment, freelance work or business ownership. These jobs include, but are not limited to, multimedia producers, directors, radio and podcast hosts, writers, reporters, program managers, sound board operators, sound designers, sound technicians, audio editors, and broadcast news analysts.

Career Options

City College offers you the opportunity to gain hands-on experience in a wide range of areas in film, journalism, and media production. Potential jobs include video editor, multimedia journalist, digital content producer, motion picture or documentary film writer/producer, director, videographer, motion graphics designer, art director, production assistant, news producer, on-air talent, news reporter, news writer, social media producer, operations engineer, news photographer, audio engineer, studio camera operator, sound technician, lighting technician, assistant director, set designer, studio manager, and floor director. The skills acquired may lead to employment, freelance work, or business ownership.

Courses Required for the Major: **Units**

FJMP 101	Introduction to Mass Media	3
FJMP 112	Introduction to Audio Production	3
FJMP 120	Introduction to Screenwriting	3
or		
FJMP 130	Newswriting for Multiplatform Journalism	3
DRAM 106	Voice-Over Performance	3
FJMP 142	Radio and Podcast Production	3

or		
FJMP 132	Multiplatform Journalism Production	3

Complete six (6) units from the following:

FJMP 131	Multimedia Journalism Reporting	3
FJMP 141	Audio Storytelling for Radio and Podcast	3
FJMP 242A	Radio and Podcast Workshop I	3
FJMP 242B	Radio and Podcast Workshop II	3

Total Units = 21

Associate in Science in Film, Television and Electronic Media for Transfer Degree:

Description

The Associate in Science in Radio, Film, and Electronic Media for Transfer Degree is intended for students who plan to complete a bachelor's degree in Radio, Film, and Electronic Media or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed below, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 133) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All

courses in the major must be completed with a grade of "C" or "P" or better.

- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 133 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Goals:

- The purpose of the Associate in Science in Radio, Film, and Electronic Media for Transfer degree is to offer an organized course of study that will prepare students intending to major in Film, Television, and Electronic Media at the California State University (CSU). It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses required for the Major:		Units
RTVF 100	Introduction To Electronic Media or	
DJRN 100	Mass Media in the Digital Age	3
RTVF 107	Audio Production	3
RTVF 110	Introduction to Scriptwriting or	
RTVF 160	Introduction to Cinema	3

Select one course from the following (3 units):

RTVF 118	Television Studio Operations	3
RTVF 124	Single Camera Production	3

Select one course from the following (3 units):

RTVF 118	Television Studio Operations	3
RTVF 167	Motion Picture Production	3

Select one course from the following (3 units):

RTVF 112	Documentary Film Production	3
RTVF 118	Television Studio Operations	3
RTVF 124	Single Camera Production	3
RTVF 151	Introduction to Multimedia	3
RTVF 153	Introduction to Nonlinear Editing	3

RTVF 167 Motion Picture Production 3

Total Units = 18

Transfer Information

Common university majors related to the field of Film, Journalism and Media Production include:

Communication, Film and Electronic Arts, Film and Television, Journalism, Mass Communication, Radio and Television, Television, Film, and Media.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

French

Award Type	Units
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Associate of Arts Degree:

French	26*
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* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The study of languages provides communication skills, provides exposure to the richness of cultural variety, increases transfer options to universities with language requirements, opens new career opportunities, enriches global travel, and provides personal enrichment. The program is designed to prepare students for transfer to a baccalaureate institution and for proficiency in a language in a variety of settings.

Program Emphasis

The Language program provides transfer level courses in Arabic, French, German, Italian,

Spanish and Russian. Students develop skills of understanding, speaking, reading and writing, culture and increase familiarity with basic features of the English language. They also have opportunities to become acquainted with the literature, culture, history and current events of other countries through films, videotapes, field trips and campus and community international events.

Faculty	Office	Telephone
Philippe Patto	AH-518C	619-388-3591

Career Options

Knowledge of another language is required or highly desirable for consular and junior foreign service, import, export, and international business and travel, health and missionary fields, overseas teaching, translating and interpreting, and travel and tourism industries. Learning another language is an asset in broadening communication skills and in the travel and tourism industry.

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate preparedness for successful transition to the language program of four year institutions.
- Demonstrate accurate foreign language grammar including writing, speaking, and listening in the target language.
- Discuss the social and cultural life of Foreign Language speakers in the target language.
- Read and analyze writings in Foreign Language target areas.
- Accept and value other peoples.

Academic Programs

The associate degree in French, German, Italian, or Spanish requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: French

Courses Required for the Major:	Units
FREN 101 First Course in French	5

FREN 102	Second Course in French	5
FREN 201	Third Course in French	5
FREN 202	Fourth Course in French	5
FREN 210	Conversation and Composition in French I	3
FREN 211	Conversation and Composition French II	3
Total Units = 26		

Recommended Electives: American Sign Language 120, 121, 220, 221, Arabic 101, 102, French 290, German 290, Spanish 290, 296.

Transfer Information

Common university majors related to the field of French include: French, Language Studies, Literature, Modern Languages, Translation and Interpretation.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

General Education

Award Type	Units
Certificate of Achievement:	
General Education CSU Transfer Pattern	39-40
General Education Intersegmental General Education Transfer Curriculum (IGETC)	37-40

The Certificate of Achievement in CSU General Education - Breadth and the Certificate of Achievement in Intersegmental General Education Transfer (IGETC) are designed for students who intend to complete university general education requirements prior to transfer to a California State University (CSU) or University of California (UC) campus.

General education (GE) is a set of courses from a variety of different subject areas that every student

must complete in order to earn a degree, regardless of major. The goal is to provide a well-rounded or "liberal" education and to develop the knowledge, skills, and attitudes that together help make up an educated person. The completion of GE prior to transfer is not required for admission to most universities. However, it is usually in the students' best interest to complete an appropriate transfer GE pattern at the community college. This is because GE requirements that are not fulfilled prior to transfer must be completed later at the university, which often extends the time and expense of a university education.

Certificate of Achievement: CSU General Education – Breadth

The student will select courses that fulfill the CSU GE certification pattern detailed on page 134 of this catalog. CSU GE is accepted by all CSU campuses and some private / independent or out of state universities. CSU GE is not accepted by the UC system.

Total Units = 39-40

Certificate of Achievement: Intersegmental General Education Transfer (IGETC)

The student will select courses that fulfill the IGETC certification pattern detailed on page 126 of this catalog. IGETC is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private / independent or out of state universities.

Total Units = 37-40

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Geography

Award Type	Units
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Associate of Science Degree: Geography	21*
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* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Associate in Arts for Transfer Degree: Geography	19–23
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Description

Physical and cultural geography, including remote sensing, cartography, and geographic information science, are disciplines classified as geography. They generally involve the principles of fundamental relationships and laws in the universe and the culture interactions in a spatial setting.

Program Emphasis

These programs are designed to prepare students with basic concepts in geography which provide the foundation for upper division study in a baccalaureate institution and also satisfy general education requirements.

Faculty	Office	Telephone
Lisa Chaddock	S-211K	619-388-4421

Career Options

Most careers require education beyond the associate degree and many require a graduate degree. A brief list of career options includes: cartographer, climatologist, urban planner, environmentalist, geographer, meteorologist, oceanographer and physical science instructor.

Program Learning Outcomes

Upon successful completion students will be able to:

- Demonstrate an understanding and appreciation of the scientific method.
- Communicate an understanding of the connections between science and other human activities.
- Examine the universe in a variety of courses.
- Utilize critical thinking skills in a variety of scientific applications.

Academic Programs

The associate degrees in Geography require completion of the courses listed for each degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Transfer Information

Common university majors related to the field of Geography include: Earth Studies and Sciences, Environmental Chemistry, Geographic Information Systems, Geography, Hydrologic Science, Meteorology and Oceanography, Sustainability.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate of Science Degree: Geography

Courses Required for the Major:		Units
GEOG 101	Physical Geography	3
GEOG 101L	Physical Geography Laboratory	1
GEOG 102	Cultural Geography	3
ECON 120	Principles of Macroeconomics	3
ECON 121	Principles of Microeconomics	3

Select 8 units from:

BIOL 107	General Biology – Lecture and Laboratory	4
CHEM 100	Fundamentals of Chemistry	3
CHEM 100L	Fundamentals of Chemistry Laboratory	1
CHEM 200	General Chemistry I – Lecture	3
CHEM 200L	General Chemistry I – Laboratory	2
MATH 107	Introduction to Scientific Programming	3
MATH 107L	Introduction to Scientific Programming Lab	1
MATH 119	Elementary Statistics	3

MATH 121	Basic Techniques of Applied Calculus I	3
MATH 150	Calculus with Analytic Geometry I	5
POLI 102	Introduction to American Government	3
PSYC 258	Behavioral Science Statistics	3
Total Units = 21		

Recommended electives: Geography 290; Physical Science 100, 101.

Associate in Arts in Geography for Transfer Degree:

Program Description:

The Associate in Arts in Geography for Transfer Degree is intended for students who plan to complete a bachelor's degree in Geography or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Award Notes:

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
GEOG 101	Physical Geography and	3
GEOG 101L	Physical Geography Laboratory	1
GEOG 102	Cultural Geography	3

Select two courses (6 semester units):

(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).

GEOG 104	World Regional Geography	3
GISG 110	Introduction to Mapping and Geographic Information Systems or	
GISG 104	Geographic Information Science and Spatial Reasoning	3

Select two of the following courses if not selected above (minimum 6 semester units):

(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).

ANTH 102	Introduction to Biological Anthropology	3
ANTH 103	Introduction to Cultural Anthropology	3
BIOL 107	General Biology – Lecture and Laboratory	4
CHEM 200	General Chemistry I – Lecture and	3
CHEM 200L	General Chemistry I – Laboratory	2
CHEM 201	General Chemistry II – Lecture and	3
CHEM 201L	General Chemistry II – Laboratory	2
GEOL 100	Physical Geology	3
GEOL 101	Physical Geology Laboratory	1
MATH 119	Elementary Statistics	3
PHYS 125	General Physics	5
PHYS 126	General Physics II	5

Total Units = 19–23

Geology

Award Type	Units
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Associate of Science Degree: Geology	33–38*
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* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Associate in Science for Transfer Degree: Geology	27
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Description

Geology is the study of the history and structure of the Earth (and other worlds), as well as the physical processes that act upon the world. It is a field that uncovers fundamental relationships and laws in the universe.

Program Emphasis

The Geology Program is designed to prepare students with basic concepts in geology which provide the foundation for upper division study in a baccalaureate institution and also satisfy general education requirements.

Career Options

Most careers in Geology require education beyond the associate degree and many require a graduate degree. A brief list of career options in geology includes: earth scientist, environmentalist, geographer, geologist, geophysicist, oceanographer, paleontologist and physical science instructor.

Program Learning Outcomes

Upon successful completion students will be able to:

- Demonstrate an understanding and appreciation of the scientific method.
- Communicate an understanding of the connections between science and other human activities.
- Examine the universe in a variety of courses.
- Utilize critical thinking skills in a variety of scientific applications.

Academic Programs

The associate degree in Geology require completion of the courses listed for each degree. Additional

general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Transfer Information

Common university majors related to the field of Geology include: Astronomy, Earth Studies and Sciences, Geology, Hydrologic Science, Meteorology and Oceanography, Physical Sciences.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate of Science Degree: Geology

Courses Required for the Major:		Units
GEOL 100	Physical Geology	3
GEOL 101	Physical Geology Laboratory	1
BIOL 107	General Biology – Lecture and Laboratory	4
CHEM 200	General Chemistry I – Lecture	3
CHEM 200L	General Chemistry I – Laboratory	2
CHEM 201	General Chemistry II – Lecture	3
CHEM 201L	General Chemistry II – Laboratory	2
MATH 150	Calculus with Analytic Geometry I	5
PHYS 180A	General Physics I	4
and		
PHYS 181A	General Physics Lab I	1
and		
PHYS 180B	General Physics II	4
and		
PHYS 181B	General Physics Lab II	1
or		
PHYS 195	Mechanics	5
and		
PHYS 196	Electricity and Magnetism	5
and		
PHYS 197	Waves, Optics and Modern Physics	5
Total Units = 33–38		

Recommended electives: Geology 290; Mathematics 107, 107L, 151, 252; a foreign language; and a course in mechanical drawing.

Associate in Science in Geology for Transfer Degree:

The Associate in Science in Geology for Transfer Degree is intended for students who plan to complete a bachelor's degree in Geology or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

Completion of 60 CSU-transferable semester units. No more than 60 units are required.

Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses

and majors may require a higher GPA. Please see a counselor for more information.

Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.

Certified completion of the California State University General Education–Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Goals:

The purpose of the Associate in Science in Geology for Transfer degree is to offer an organized course of study that will prepare students intending to major in Geology at the California State University (CSU). It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
GEOL 100	Physical Geology	3
GEOL 101	Physical Geology Laboratory	1
GEOL 111	Dinosaurs, Mass Extinctions, and Earth History	4
CHEM 200	General Chemistry I – Lecture	3
CHEM 200L	General Chemistry I – Laboratory	2
CHEM 201	General Chemistry II – Lecture	3
CHEM 201L	General Chemistry II – Laboratory	2
MATH 150	Calculus with Analytic Geometry I	5
MATH 151	Calculus with Analytic Geometry II	4
Total Units = 27		

German

Award Type	Units
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Associate of Arts Degree:

German	21*
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* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The study of languages provides communication skills, provides exposure to the richness of cultural variety, increases transfer options to universities with language requirements, opens new career opportunities, enriches global travel, and provides personal enrichment. The program is designed to prepare students for transfer to a baccalaureate institution and for proficiency in a language in a variety of settings.

Program Emphasis

The Language program provides transfer level courses in Arabic, French, German, Italian, Spanish and Russian. Students develop skills of understanding, speaking, reading and writing, culture and increase familiarity with basic features of the English language. They also have opportunities to become acquainted with the literature, culture, history and current events of other countries through films, videotapes, field trips and campus and community international events.

Faculty	Office	Telephone
Philippe Patto	AH-518B	619-388-3295

Career Options

Knowledge of another language is required or highly desirable for consular and junior foreign service, import, export, and international business and travel, health and missionary fields, overseas teaching, translating and interpreting, and travel and tourism industries. Learning another language is an asset in broadening communication skills and in the travel and tourism industry.

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate preparedness for successful transition to the language program of four year institutions.
- Demonstrate accurate foreign language grammar including writing, speaking, and listening in the target language.
- Discuss the social and cultural life of Foreign Language speakers in the target language.
- Read and analyze writings in Foreign Language target areas.
- Accept and value other peoples.

Academic Programs

The associate degree in French, German, Italian, or Spanish requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: German

Courses Required for the Major:		Units
GERM 101	First Course in German	5
GERM 102	Second Course in German	5
GERM 201	Third Course in German	5
GERM 210	The Grammar of Spoken German I	3
GERM 211	The Grammar of Spoken German II	3
Total Units = 21		

Recommended electives: American Sign Language 120, 121, 220, 221, Arabic 101, 102, French 290, German 290, Spanish 290, 296.

Transfer Information

Common university majors related to the field of German include: German, Language Studies, Literature, Modern Languages, Translation and Interpretation.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific

transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

History

Award Type	Units
Associate of Arts Degree:	
History	18*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
History	18

Description

History is the study of human experience from the dawn of time to the present. It examines people, institutions, ideas and events of the past and the present. The primary objectives of the History program are: to meet general education requirements for American Institutions, Humanities and Social Sciences; completion of the Associate of Arts degree; and preparation for transfer to a four-year institution and completion of general education requirements for the student enrolled in a four-year institution.

Program Emphasis

The study of history develops cultural literacy, critical thinking, and other useful skills. San Diego City College offers the two-semester World History survey sequence along with the two-semester American History survey sequence. Completion of these two sequences provides the student with the necessary lower division preparation for a baccalaureate degree in History at San Diego State University.

Faculty	Office	Telephone
Peter Haro	MS-440F	619-388-3095
Susan Hasegawa	MS-440H	619-388-3370
Sofia Laurein	MS-437	619-388-3092

Career Options

Most careers in history require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with history preparation include: archivist, business person, diplomatic corps, historian, journalist, lawyer, librarian, museum curator, park historian, professor, teacher and writer.

Program Learning Outcomes

Students who complete the program will be able to:

- Critically analyze primary and secondary sources in college-level essays, written assignments, and research papers.
- Identify and describe historic periods, movements, trends, people, and events important in the study of World, U.S., Asian and Latin American history, and Western Civilization.

Academic Programs

The associate degree in History requires completion of three of the four course sequences in History listed for the degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: History

Courses Required for the Major:		Units
Select three of the 6-unit course sequences or 18 units		
HIST 100	World History I	3
and		
HIST 101	World History II	3
or		
HIST 105	Introduction to Western Civilization I	3
and		
HIST 106	Introduction to Western Civilization II	3
or		
HIST 109	History of the United States I	3
and		
HIST 110	History of the United States II	3
or		
HIST 115A	History of the Americas I	3
and		
HIST 115B	History of the Americas II	3

	or	
HIST 120	Introduction to Asian Civilization	3
	and	
HIST 121	Asian Civilization in Modern Times	3
	or	
HIST 109	History of the United States I	3
	and	
HIST 123	U.S. History from the Asian Pacific American Perspective	3
		Total Units = 18

Recommended electives: History 290.

Associate in Arts in History for Transfer Degree:

Program Description:

The Associate in Arts in History for Transfer Degree is intended for students who plan to complete a bachelor's degree in History or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

Note: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general

education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Electives as needed to meet maximum of 60 CSU-transferable units required for the degree.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
HIST 109	History of the United States I	3
HIST 110	History of the United States II	3

Select two courses from the following:

HIST 100	World History I	3
HIST 101	World History II	3
HIST 105	Introduction to Western Civilization I	3
HIST 106	Introduction to Western Civilization II	3

Select two courses not selected above from the following:

HIST 100	World History I	3
HIST 101	World History II	3
HIST 105	Introduction to Western Civilization I	3
HIST 106	Introduction to Western Civilization II	3
HIST 115A	History of the Americas I	3
HIST 115B	History of the Americas II	3
HIST 120	Introduction to Asian Civilizations	3
HIST 121	Asian Civilizations in Modern Times	3
HIST 123	U.S. History from the Asian Pacific American Perspective	3

Total Units = 18

Transfer Information

Common university majors related to the field of

History include: Art History, History, International Studies, Liberal Studies, Social and Behavioral Studies, World Cultures and History.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Human Services

Award Type	Units
Certificate of Performance:	
Community Health Work	9
Homelessness Prevention Strategies	9
Certificate of Achievement:	
Community Health Work	18–21
Gerontology	18–20

Community Health Work

Description

The Certificate of Performance in Community Health Work is designed to introduce current and potential Community Health Workers (CHWs) to core concepts in the field of community health. This program prepares students to work in a variety of health settings that utilize entry level front line health workers. These settings may include public and private health and human service institutions, especially those that address undeserved communities.

Program Emphasis

Program emphasis is placed on providing students with both vocational and academic aspects of Community Health Work through a combination of coursework and practical experience.

Faculty	Office	Telephone
Kirin Macapugay	MS-535	619-388-3562

Career Options

Career options for students completing the Certificate of Performance in Community Health Work include Health Educator, Information Resource personnel for health facilities and the community, Organizer, Interpreter, and Health Advocate. In addition, this program includes core academic courses that provide a basis for continued formal academic pursuits in the field of Health, Human Services, or Behavioral Sciences.

Program Learning Outcomes

Students who complete the program will be able to:

- Recognize, identify, assess, and address key concepts in aging (e.g., physical and mental health, exercise, nutrition, the normal aging process, etc.) affecting optimal aging and older adulthood functioning.
- Identify and compare the various public benefits available through local, state, federal, public assistance programs.
- Identify and make referral to appropriate services.
- Recognize and identify risk of caregiver stress, particularly in caring for individuals suffering from Alzheimer's and other dementia.
- Make a report of an incident or suspected incident of an abuse/neglect of dependent adults and elders.

Certificate of Performance: Community Health Work*

The Community Health Work Certificate Program provides students who work in, or plan to work in, the field of Community Health Work with a fundamental academic and practical base for success in the field.

Courses:	Units
HUMS 103 Introduction to Community Health Work	3
HUMS 111 Introduction to Chronic Disease	3
HUMS 112 Community Service Practicum	3
Total Units = 9	

*A Certificate of Performance is a departmental award that does not appear on the student's

transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Transfer Information

Common university majors related to the field of Human Services include: Human Development, Child Development, Gerontology, Social Work.

Certificate of Performance: Homelessness Prevention Strategies*

The Certificate of Performance in Homelessness Prevention Strategies provides students with a foundation in analysis of behavior and service systems. Students apply human service and social work theories through practice with individuals, groups, and communities. This program is designed for students interested in working in public and private organizations addressing homelessness, students majoring in social work, alcohol and other drug studies, psychology, or those interested in expanding their knowledge base to the helping professions.

Note:

Students pursuing employment in social work and/or are majoring in social work are recommended to complete Human Services 110 in addition to the course requirements. Because major preparation requirements vary at each transfer institution, courses used to complete the social work major should be selected with the assistance of a San Diego City College counselor.

Courses:	Units
HUMS 75 Working with Homeless and At-Risk Populations	2
HUMS 95 Public Assistance and Benefits Program	1
HUMS 120 Introduction to Social Work	3
PSYC 161 Introduction to Counseling	3
Total Units = 9	

Recommended electives: Human Services 110.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Community Health Work

The Certificate of Achievement in Community Health Work is designed to prepare students to work in a variety of health settings that utilize entry-level front-line health care workers by providing training in the core competencies needed to successfully insert themselves in the vast range of options this line of work provides.

Program Emphasis

Program emphasis is placed on providing students with both practical and theoretical experience in the field of Community Health Work. Students take part in a field placement to gain direct experience within the field including training on health literacy, interviewing skills, cultural competency, social justice and advocacy, as well as other career readiness related skills, such as public speaking and professionalism.

The program builds upon the experience students have gained through completing a Certificate of Performance in Community Health Work. Candidates for this program are students who plan on pursuing a career in the field of Community Health Work and those who need an introduction to the practical application of the concepts learned.

Career Options

The skills acquired with this certificate may lead to employment in settings that include public and private health and human service institutions, such as hospitals, community health clinics, public health programs, insurance companies, and community based non-profit organizations. Positions for Community Health Workers may include: health educator, community organizer, patient advocate in hospitals, case manager, health counselor, care specialist, outreach worker, interpreter, patient navigator, etc.

Award Note: The department recommends that students take HUMS 103 before taking HUMS 121 and HUMS 121 is before HUMS 122 and HUMS 270.

Courses Required for the Major	Units
HUMS 103 Introduction to Community Health Work	3
HUMS 111 Introduction to Chronic Disease	3
HUMS 118 Diversity and Cultural Competency	3
HUMS 121 Practicum 1: Core Competencies	3
HUMS 122 Practicum 2: Field Work	2

PSYC 130	Introduction to Community Psychology	3
HUMS 270	Work Experience	1–4
Total Units = 18–21		

Certificate of Achievement: Gerontology

The certificate of Achievement in Gerontology is designed to introduce students to the field of social gerontology. The program provides information on psychological, sociological, and biological aspects of aging and offers students insights into their own aging process as well as that of the growing population of older adults. By the middle of the 21st century, 1 in 5 Americans will be over 65, and there will be 15 to 18 million persons over the age of 85. These forecasts are expected to result in demand for career opportunities in gerontology across many disciplines and professions. This program is both vocational and academic, offering courses in theoretical and practical topics related to human aging.

Program Goals:

- Provide students with knowledge of aging network, as well as with programs and services available to elderly at the local, state, and federal levels.
- Prepare students to understand own attitudes toward and beliefs about old age and older adults, and reflect and analyze stereotypes or attitudes towards old adults in the portrayal of aging by society.
- Provide students with knowledge and skills to identify and understand stereotypes and attitude toward older adults, and emphasize their places and contributions in society.
- Prepare students to understand the basic processes of physical/biological, psychological, and social aspects of aging.
- Prepare students with knowledge of healthcare and public health systems and the role of the community health workers as a promoter of health and healthy living.
- Prepare students in the generalist perspectives for careers in a variety of gerontological settings such as senior centers, senior service organizations, supportive senior housing, public, non-profit and corporate settings, and health & long term care facilities.

- Prepare students with basic case management skills such as, interviewing, assessment, and reporting writing.
- Prepare students to develop effective written, oral and interpersonal communication skills with individuals, caregivers, families, and community through field experiences.
- Prepare students to evaluate common methods of care for the dying including hospitals, skilled nursing facilities, and hospice care.
- Prepare students to evaluate and discuss similarities and differences surrounding diverse aging populations as they relate to life expectancy, mortality, mobility, family, work, retirement, mental health, lifestyles, sexuality, and use of services.
- Provide students to recognize and identify risk of caregiver stress, particularly in dealing with individuals suffering from Alzheimer's and other dementia.
- Provide students to identify and evaluate elder abuse causes, prevention strategies, and resources.
- Provide students with knowledge and skills necessary to advocate for the needs of older adults and their families by engaging in policy formation, implementation, and analysis.
- Prepare students to evaluate and assess individual needs and environmental demands in preparing an appropriate plan to maintain functional capacity and adaptation at the optimal level throughout the life cycle.

Program Emphasis:

The Certificate of Achievement in Gerontology emphasizes adult development, social and public policy, advocacy, and programs and services for older adults. Students take part in a field placement internship to gain direct experience with the elderly while interacting with service providers. The program targets two groups of students: those seeking new careers in gerontology and those who wish to advance their present careers by adding professional gerontology education and training components to their qualifications.

Career Options:

The field of gerontology is quite diverse and offers a variety of employment opportunities. Career opportunities for students who successfully

complete the Certificate of Achievement in Gerontology include employment with home care agencies and individual/ family services, community care facilities, residential communities and non-profit and for-profit organizations serving the elderly and their families.

Examples of occupations by category include:

Individual/ Family Services and Home Care Agencies (non-medical home care services)

- Advisors/ Consultant (with financial, health insurance, legal, medical, etc. Ex. Registered Financial Gerontologist, Health Insurance Counseling & Assistance Advisor, policy advisor)
- In-Home Care Aide / Caregiver
- Personal Care Assistant

Community Care Facilities (hospitals, hospices, adult day care centers, nursing homes, boarding cares, correction facilities, etc.)

- Administrative support / Receptionist/ Customer Service Representatives
- Activity Coordinator
- Admission Coordinator
- Care Specialist / Nurse Aide
- Personal trainer/ Fitness Specialist
- Senior Companion
- Transportation Coordinator
- Volunteer Program Coordinator
- Recreation Worker

Residential Communities /(independent living)/ Non-Profit & For-Profit Organizations / City, State, federal governments

- Event Coordinator
- Elder Advocate
- Program Aide/ Assistant/ Caseworker for older adult programs and services
- Human Services Specialist

Others positions intersect with Gerontology

- Pharmacy Aides
- Healthcare Interior Designer (gerontology specialization)

- Hospitality Services & Tourism Coordinator/ Travel & Tour Coordinator
- Grant writer
- Ergonomist
- Intergenerational Specialist
- Nutrition Educator
- Banking (older adult customer service representative/ reverse mortgage specialist)
- Account Specialist (for products for older adults with advertising companies)
- Buyers/ Personal Shopper (clothing/ textile for manufacturer or for individuals)

Courses Required for the Major		Units
HUMS 95	Public Assistance and Benefits Program	1
HUMS 101	Introduction to Human Aging	3
HUMS 103	Introduction to Community Health Work	3
HUMS 110	Social Work Fields of Service	3
HUMS 276	Field Work in Gerontological Services	2-4
PSYC 111	Psychological/Social Aspects of Aging, Death and Dying	3
PSYC 230	Psychology of Lifespan Development	3
Total Units = 18-20		

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor’s degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student’s specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Italian

Award Type	Units
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Associate of Arts Degree: Italian	21*
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* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The study of languages provides communication skills, provides exposure to the richness of cultural variety, increases transfer options to universities with language requirements, opens new career opportunities, enriches global travel, and provides personal enrichment. The program is designed to prepare students for transfer to a baccalaureate institution and for proficiency in a language in a variety of settings.

Program Emphasis

The Language program provides transfer level courses in Arabic, French, German, Italian, Spanish and Russian. Students develop skills of understanding, speaking, reading and writing, culture and increase familiarity with basic features of the English language. They also have opportunities to become acquainted with the literature, culture, history and current events of other countries through films, videotapes, field trips and campus and community international events.

Faculty	Office	Telephone
Philippe Patto	AH-518B	619-388-3295

Career Options

Knowledge of another language is required or highly desirable for consular and junior foreign service, import, export, and international business and travel, health and missionary fields, overseas teaching, translating and interpreting, and travel and tourism industries. Learning another language is an asset in broadening communication skills and in the travel and tourism industry.

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate preparedness for successful transition to the language program of four year institutions.
- Demonstrate accurate foreign language grammar including writing, speaking, and listening in the target language.
- Discuss the social and cultural life of Foreign Language speakers in the target language.
- Read and analyze writings in Foreign Language target areas.
- Accept and value other peoples.

Academic Programs

The associate degree in French, German, Italian, or Spanish requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: Italian

Courses Required for the Major:		Units
ITAL 101	First Course in Italian	5
ITAL 102	Second Course in Italian	5
ITAL 201	Third Course in Italian	5
ITAL 210	The Grammar of Spoken Italian I	3
ITAL 211	The Grammar of Spoken Italian II	3
		Total Units = 21

Recommended electives: American Sign Language 120, 121, 220, 221, Arabic 101, 102, French 290, German 290, Spanish 290, 296.

Transfer Information

Common university majors related to the field of Italian include: Italian, Language Studies, Literature, Modern Languages, Translation and Interpretation.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts

and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Journalism

See "Digital Journalism" on page 218

Labor Studies

Award Type	Units
Certificate of Performance: History and Politics of American Labor	6
Certificate of Achievement: Labor Studies	12

Description

The Labor Studies program provides students a sound foundation in the law, history, culture, politics, institutions, and contemporary issues of American work life. Students will gain a comprehensive introduction to the role and contributions of organized labor to American society, a thorough grounding in the rights of employees on the job, knowledge of broader social justice interconnections with labor, and specialized training in the skills necessary to be an effective leader in labor unions or non-profit organizations and in other contexts for labor-management relations.

Career Options

Students completing the Certificate of Achievement in Labor Studies are prepared to find employment as union representatives, labor leaders, industry coordinators, social justice work, community organizing, non-profit employment, and other positions related to labor relations.

Faculty	Office	Telephone
Kelly Mayhew	AH-517D	619-388-3136
Jim Miller	AH-517G	619-388-3554

Certificate of Performance: History and Politics of American Labor*

Courses:	Units
LABR 100 American Labor Movement	3
LABR 108 Labor and Politics	3
Total Units = 6	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Labor Studies

The Certificate of Achievement in Labor Studies provides union members, organizers, and officers as well as those students interested in social justice majors and non-profit community organizing work the skills needed to qualify for and to be effective in their positions.

Note:

Students who successfully complete the Certificate of Achievement in Labor Studies will have a:

- Working knowledge of labor organizations, their history, philosophy, structure, and day-to-day operations.

Courses Required for the Major:	Units
LABR 100 American Labor Movement	3
LABR 102 Labor Law	3
LABR 107 Organizing	3
LABR 108 Labor and Politics	3
Total Units = 12	

Transfer Information

Common university majors related to the field of Labor Studies include: Labor Studies.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may

be individually tailored to each student’s specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Liberal Arts and Sciences

Award Type	Units
Associate of Arts Degree:	
Language Arts and Humanities	18*
Scientific Studies Biological Science	18*
Scientific Studies Mathematics and Pre-Engineering	18*
Scientific Studies Physical and Earth Sciences Specialization	18*
Social and Behavioral Sciences	18*
Visual and Performing Arts	18*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Liberal Arts and Sciences Degree is designed to enable students to complete the requirements for an Associate of Arts Degree with a minimum of 18 units in an area of emphasis and transfer to a University of California, a California State University or an independent/private college and university.

To meet the Liberal Arts and Sciences Degree requirements a student must complete the following:

- One of the following four general education options
 - San Diego Community College District General Education and District Requirements. This GE pattern may fulfill all lower division general education requirements at an independent/private college or university. (See City College catalog page 101.)
 - CSU General Education - Breadth (CSU GE Pattern). This GE pattern will fulfill all lower division general education requirements at all CSU campuses. (See City College catalog page 134.)

- Intersegmental General Education Transfer Curriculum (IGETC) pattern. This GE pattern will fulfill all lower-division general education requirements at all CSU campuses, most UC campuses/majors and some independent/private colleges and universities. (See City College catalog page 126.)
- San Diego Community College District General Education and additional courses needed to meet all lower division general education requirements of an accredited U.S. postsecondary institution which awards the baccalaureate degree, as detailed in an interinstitutional articulation or transfer agreement and certified by a City counselor. (See City College Catalog page 106.)

2. A minimum of 18 units in an Area of Emphasis or Specialization. These include:

- Language Arts and Humanities
- Scientific Studies Biological Science
- Scientific Studies Mathematics and Pre-Engineering
- Scientific Studies Physical and Earth Sciences Specialization
- Social and Behavioral Sciences
- Visual and Performing Arts

A minimum of 60 transferable units to a University of California, a California State University or an independent/private college and university.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a City College counselor. Completion of the Liberal Arts and Sciences Degree does not guarantee acceptance into a four year institution nor into a major.

Language Arts and Humanities:

These courses emphasize the study of cultural, literary, and humanistic activities of human beings. Students evaluate and interpret the ways in which people through the ages in different cultures have

responded to themselves and the world around them in cultural creation. Students also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments.

Associate of Arts Degree: Liberal Arts and Sciences: Language Arts and Humanities

Description

The Liberal Arts and Sciences Degree is designed to enable students to complete the requirements for an Associate of Arts Degree with a minimum of 18 units in an area of emphasis and transfer to a University of California, a California State University or an independent/private college and university.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this major should be selected with the assistance of a San Diego City College counselor.

Common university majors in this emphasis include: Classics, Communication, Comparative Literature, Creative Writing, Deaf Studies, English, French, German, Global Cultures, History, Humanities, Italian Studies, Latin American and Latino Studies, Linguistics, Literary Studies, Literature, Literature and Culture, Media Studies, Mass Communications, Philosophy, Professional Writing and Rhetoric, Religious Studies, Spanish, Spanish Studies.

Courses Required for the Major:

Students should complete a minimum of 18 units in Arts and Humanities courses:

AMSL 120	American Sign Language Level I	5
AMSL 121	American Sign Language Level II	5
AMSL 220	American Sign Language Level III	5
AMSL 221	American Sign Language Level IV	5
AMSL 150	Introduction to Deaf Culture	3
ARAB 101	First Course in Arabic	5
ARAB 102	Second Course in Arabic	5
ARAB 105	Elementary Spoken Egyptian Arabic	3
BLAS 110	African American Art	3
BLAS 120	Black Music	3
BLAS 155	African American Literature	3
CHIC 130	Mexican Literature in Translation	3
CHIC 135	Chicana/o Literature	3
CHIC 190	Chicano Images in Film	3
CHIC 210	Chicano Culture	3

COMS 101	Voice and Articulation	3
COMS 103	Oral Communication	3
COMS 104	Advanced Public Communication	3
COMS 111	Oral Interpretation	3
COMS 135	Interpersonal Communication	3
COMS 160	Argumentation and Critical Thinking	3
COMS 170	Small Group Communication	3
COMS 180	Intercultural Communication	3
COMS 201	Communication and Community	3
ENGL 101	Reading and Composition	3
ENGL 105	Composition and Literature	3
ENGL 202	Introduction to Linguistics	3
ENGL 205	Critical Thinking and Intermediate Composition	3
ENGL 208	Introduction to Literature	3
ENGL 209	Literary Approaches to Film	3
ENGL 210	American Literature I	3
ENGL 211	American Literature II	3
ENGL 215	English Literature I: 800-1799	3
ENGL 216	English Literature II: 1800 - Present	3
ENGL 220	Masterpieces of World Literature I: 1500 BCE - 1600 CE	3
ENGL 221	Masterpieces of World Literature II: 1600 - Present	3
ENGL 237	Women in Literature	3
ENGL 238	Evaluating Children's Literature	3
ENGL 240	Shakespeare	3
ENGL 245A	Writing Creative Nonfiction	3
ENGL 252A	Fundamentals of Fiction Writing	3
ENGL 247A	Writing Seminar - Poetry	3
ENGL 249A	Introduction to Creative Writing I	3
FREN 101	First Course in French	5
FREN 201	Third Course in French	5
FREN 102	Second Course in French	5
FREN 202	Fourth Course in French	5
GERM 101	First Course in German	5
GERM 102	Second Course in German	5
GERM 201	Third Course in German	5
HIST 100	World History I	3
HIST 101	World History II	3
HIST 105	Introduction to Western Civilization I	3
HIST 106	Introduction to Western Civilization II	3
HIST 120	Introduction to Asian Civilizations	3
HIST 121	Asian Civilizations in Modern Times	3
HUMA 101	Introduction to the Humanities I	3
HUMA 102	Introduction to the Humanities II	3
HUMA 103	Introduction to the New Testament	3
HUMA 106	World Religions	3
HUMA 201	Mythology	3
ITAL 101	First Course in Italian	5
ITAL 102	Second Course in Italian	5
ITAL 201	Third Course in Italian	5
PHIL 100	Logic and Critical Thinking	3

PHIL 101	Symbolic Logic	3
PHIL 102A	Introduction to Philosophy: Reality and Knowledge	3
PHIL 102B	Introduction to Philosophy: Values	3
PHIL 104A	History Of Western Philosophy: Ancient to Medieval	3
PHIL 104B	History of Western Philosophy: Modern to Contemporary	3
PHIL 105	Contemporary Philosophy	3
PHIL 106	Asian Philosophy	3
PHIL 107	Reflections on Human Nature	3
PHIL 108	Perspectives on Human Nature and Society	3
PHIL 111	Philosophy In Literature and Other Fiction	3
PHIL 125	Philosophy of Women	3
PHIL 126	Introduction to Philosophy of Contemporary Gender Issues	3
PHIL 130	Philosophy of Art and Music	3
SPAN 101	First Course in Spanish	5
SPAN 102	Second Course in Spanish	5
SPAN 201	Third Course in Spanish	5
SPAN 202	Fourth Course in Spanish	5
SPAN 215	Spanish for Spanish Speakers I	5
SPAN 216	Spanish for Spanish Speakers II	5

Total Units= 18

Scientific Studies:

These courses emphasize the study of mathematical and quantitative reasoning skills and impart knowledge of the facts and principles that form the foundations of living and non-living systems. Students recognize and appreciate the methodologies of science as investigative tools, as well as the limitations of scientific endeavors. This area is divided into the following specializations: Biological Science, Mathematics and Pre-engineering, Physical and Earth Sciences.

Associate of Arts Degree: Liberal Arts and Sciences: Scientific Studies in Biological Science

The Liberal Arts and Sciences: Scientific Studies in Biological Sciences Associate Degree offers students the theoretical knowledge, practical laboratory experience, and quantitative reasoning skills necessary to transfer to a University of California, a California State University, or an independent/private college or university in a variety of specializations in the Biological Sciences, including: General Biology, Biology Education, Biochemistry, Biopsychology, Cell Biology, Biotechnology, Cell and Developmental

Biology, Chemical Biology, Developmental Biology, Ecological, Evolutionary, and Organismal Biology, Ecology, Behavior, and Evolution, Ecology and Environmental Biology, Ecology and Evolutionary Biology, Environmental Biology, Human Biology, Integrative Biology, Marine Biology, Microbiology, Microbial Biology, Microbiology and Immunology, Neurobiology Biology Education, Organismal Biology, Plant Biology, Molecular and Cell Biology, and Molecular Environmental Biology.

Note: The Liberal Arts and Sciences Degree is designed to enable students to complete the requirements for an Associate in Arts Degree with a minimum of 18 units in an area of emphasis and transfer to a University of California, a California State University, or an independent/private college. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this major should be selected with the assistance of a San Diego City College counselor.

Common university majors in this field include:

Agricultural Science, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biophysics, Biotechnology, Botany, Cell Biology, Conservation, Developmental Biology, Ecology, Entomology, Life Science, Genetics, Marine Biology, Medical Sciences, Microbiology, Molecular Biology, Natural Sciences, Neuroscience, Psychobiology, Toxicology, and Zoology/Animal Sciences.

Courses Required for the Major:

Students should complete a minimum of 18 units in Biological Science courses:

BIOL 101	Issues in Environmental Science & Sustainability	4
BIOL 107	General Biology – Lecture and Laboratory	4
BIOL 130	Human Heredity	3
BIOL 180	Plants and People	3
BIOL 205	General Microbiology	5
BIOL 210A	Introduction to the Biological Sciences I	4
BIOL 210B	Introduction to the Biological Sciences II	4
BIOL 111	Cancer Biology	3
BIOL 230	Human Anatomy	4
BIOL 232	Experience in Human Dissection	1
BIOL 235	Human Physiology	4
CHEM 130	Introduction to Organic and Biological Chemistry	3

CHEM 130L	Introduction to Organic and Biological Chemistry Laboratory	1
CHEM 200	General Chemistry I - Lecture	3
CHEM 200L	General Chemistry I - Laboratory	2
CHEM 201	General Chemistry II - Lecture	3
CHEM 201L	General Chemistry II - Laboratory	2
CHEM 231	Organic Chemistry I - Lecture	3
CHEM 231L	Organic Chemistry I - Laboratory	2
CHEM 233	Organic Chemistry II - Lecture	3
CHEM 233L	Organic Chemistry II - Laboratory	2
MATH 119	Elementary Statistics	3
or		
PSYC 258	Behavioral Science Statistics	3
or		
MATH 115	Gateway to Experimental Statistics	4
or		
BUSE 115	Statistics for Business	3
MATH 121	Basic Techniques of Applied Calculus I	3
MATH 122	Basic Techniques of Calculus II	3
MATH 150	Calculus with Analytic Geometry I	5
MATH 151	Calculus with Analytic Geometry II	4
PHYS 125	General Physics	5
PHYS 126	General Physics II	5
PHYS 180A	General Physics I	4
PHYS 180B	General Physics II	4
PHYS 181A	General Physics Laboratory I	1
PHYS 181B	General Physics Laboratory II	1
PHYS 195	Mechanics	5
PHYS 196	Electricity and Magnetism	5
PHYS 197	Waves, Optics and Modern Physics	5
PSYC 255	Introduction to Psychological Research	3
PSYC 259	Behavioral Science Statistics Laboratory	1
Total Units = 18		

Associate of Arts Degree: Liberal Arts and Sciences: Scientific Studies Mathematics and Pre-Engineering

The Liberal Arts and Sciences: Scientific Studies in Mathematics and Pre-Engineering Associate Degree offer students the mathematical and scientific knowledge, practical experience, and quantitative reasoning skills necessary to transfer to a University of California, a California State University, or an independent/private college or university in a variety specializations, including Aerospace Engineering, Applied Electronics, Applied Mathematics, Astrophysics, Civil Engineering, Computer Engineering, Computer Science, Construction Engineering, Data Science, Electrical

Engineering, Engineering, Engineering Technology, Environmental Engineering, Industrial Engineering Technology, Information Systems, Manufacturing Engineering, Materials Science, Mathematics, Robotics, Statistics, Mechanical Engineering, Network and Digital Technology, Nuclear Engineering, Software Engineering, and Structural Engineering.

Note: The Liberal Arts and Sciences Degree is designed to enable students to complete the requirements for an Associate in Arts Degree with a minimum of 18 units in an area of emphasis and transfer to a University of California, a California State University, or an independent/private college. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this major should be selected with the assistance of a San Diego City College counselor.

Courses Required for the Major:

Complete a minimum of 18 units from the courses listed below:

MATH 119	Elementary Statistics	3
or		
PSYC 258	Behavioral Science Statistics	3
or		
MATH 115	Gateway to Experimental Statistics	4
CHEM 200	General Chemistry I - Lecture	3
CHEM 200L	General Chemistry I - Laboratory	2
CHEM 201	General Chemistry II - Lecture	3
CHEM 201L	General Chemistry II - Laboratory	2
CISC 179	Python Programming	4
CISC 181	Principles of Information Systems	4
CISC 187	Data Structures in C++	4
CISC 186	Visual Basic Programming	4
CISC 190	Java Programming	4
CISC 192	C/C++ Programming	4
CISC 205	Object Oriented Programming using C++	4
CISC 220	Fundamentals of Computer Game Programming	4
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4
ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1

ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ENGE 101	Introduction to Engineering	1.5
ENGE 108	Dimensioning and Tolerancing	3
ENGE 111	Introduction to Computer-Aided Design	3
ENGE 116	Computational Methods in Engineering	3
ENGE 151	Computer-Aided Design	2
ENGE 152	Engineering Design	3
ENGE 200	Statics	3
ENGE 210	Properties of Materials	3
ENGE 240	Digital Systems	3
ENGE 250	Dynamics	3
ENGE 260	Electric Circuits	3
MATH 107	Introduction to Scientific Programming	3
MATH 107L	Introduction to Scientific Programming Lab	1
MATH 121	Basic Techniques of Applied Calculus I	3
MATH 122	Basic Techniques of Calculus II	3
MATH 141	Precalculus	5
MATH 150	Calculus with Analytic Geometry I	5
MATH 151	Calculus with Analytic Geometry II	4
MATH 245	Discrete Mathematics	3
MATH 252	Calculus with Analytic Geometry III	4
MATH 254	Introduction to Linear Algebra	3
MATH 255	Differential Equations	3
MFET 101	Introduction to Manufacturing Engineering Technology	3
MFET 110	Industrial Safety	2
MFET 120	Manufacturing Processes	4
MFET 210	Statistical Process Control	3
PHYS 180A	General Physics I	4
PHYS 180B	General Physics II	4
PHYS 181A	General Physics Laboratory I	1
PHYS 181B	General Physics Laboratory II	1
PHYS 195	Mechanics	5
PHYS 196	Electricity and Magnetism	5
PHYS 197	Waves, Optics and Modern Physics	5

Total Units = 18

Physical and Earth Sciences:

The specialization in Physical and Earth Sciences is intended for students who plan to complete a bachelor's degree at a transfer institution in a physical and earth science-related major.

Common university majors in this field

include: Astronomy, Astrophysics, Biochemistry, Biophysics, Chemical Engineering, Chemical Physics, Chemistry, Earth Sciences, Environmental Chemistry, Environmental Sciences, Engineering

Physics, Geographic Information Science, Geology, Hydrologic Sciences, Meteorology, Natural Sciences, Oceanography, Physical Geography, Physical Science and Physics.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this major should be selected with the assistance of a San Diego City College counselor.

Associate of Arts Degree: Liberal Arts and Sciences: Scientific Studies Physical and Earth Sciences Specialization

Courses Required for the Major:

Students should complete a minimum of 18 units including both Physical and Earth Science courses:

AGRI 100	Principles of Sustainable Agriculture	3
ASTR 101	Descriptive Astronomy	3
ASTR 109	Practice in Observing	1
ASTR 111	Astronomy Laboratory	1
BIOL 200	Biological Statistics or	
MATH 119	Elementary Statistics or	
PSYC 258	Behavioral Science Statistics	3
CHEM 100	Fundamentals of Chemistry	3
CHEM 100L	Fundamentals of Chemistry Laboratory	1
CHEM 111	Chemistry in Society	3
CHEM 111L	Chemistry and Society Laboratory	1
CHEM 130	Introduction to Organic and Biological Chemistry	3
CHEM 130L	Introduction to Organic and Biological Chemistry Laboratory	1
CHEM 152	Introduction to General Chemistry	3
CHEM 152L	Introduction to General Chemistry Laboratory	1
CHEM 200	General Chemistry I – Lecture	3
CHEM 200L	General Chemistry I – Laboratory	2
CHEM 201	General Chemistry II – Lecture	3
CHEM 201L	General Chemistry II – Laboratory	2
CHEM 231L	Organic Chemistry I – Laboratory	2
CHEM 231	Organic Chemistry I – Lecture	3
CHEM 233	Organic Chemistry II – Lecture	3
CHEM 233L	Organic Chemistry II – Laboratory	2
CHEM 251	Quantitative Analytical Chemistry	5
CISC 181	Principles of Information Systems	4
CISC 190	Java Programming	4
CISC 192	C/C++ Programming	4

GEOG 101	Physical Geography	3
GEOG 101L	Physical Geography Laboratory	1
GEOG 102	Cultural Geography	3
GEOG 104	World Regional Geography	3
GEOL 100	Physical Geology	3
GEOL 101	Physical Geology Laboratory	1
GEOL 104	Earth Science	3
GISG 104	Geographic Information Science and Spatial Reasoning	3
GISG 110	Introduction to Mapping and Geographic Information Systems	3
MATH 150	Calculus with Analytic Geometry I	5
MATH 151	Calculus with Analytic Geometry II	4
MATH 252	Calculus with Analytic Geometry III	4
PHYN 100	Survey of Physical Science	3
PHYN 101	Survey of Physical Science Laboratory	1
PHYS 100	Introductory Physics	4
PHYS 125	General Physics	5
PHYS 126	General Physics II	5
PHYS 180A	General Physics I	4
PHYS 180B	General Physics II	4
PHYS 181A	General Physics Laboratory I	1
PHYS 181B	General Physics Laboratory II	1
PHYS 195	Mechanics	5
PHYS 196	Electricity and Magnetism	5
PHYS 197	Waves, Optics and Modern Physics	5
SUST 101	Introduction to Sustainability	3
SUST 102	Environmental Ethics	3

Total Units = 18

Social and Behavioral Sciences:

These courses emphasize a multidisciplinary approach to the understanding and study of human behavior. Students evaluate and interpret human societies; the institutions, organizations and groups that compose them; and the way individuals and groups relate to one another. Students develop an appreciation of the various approaches and methodologies of the disciplines.

The area of Social and Behavioral Science is intended for students who plan to complete a bachelor's degree at a transfer institution in a social and behavioral science-related major.

Common university majors in this field include:

Afro American Studies, Anthropology, Archeology, Behavioral Science, Black Studies, Chicano Studies, Child Development, Cognitive Science, Community Studies, Criminal Justice/Justice Studies, Cultural Geography, Developmental Studies, Ethnic Studies, Family and Consumer Studies, Gerontology, Global Studies, History, Human Services, International

Relations, Law, Peace and Conflict Studies, Policy Analysis, Political Science, Psychobiology, Psychology, Public Administration, Social Work, Social Science, Sociology.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this major should be selected with the assistance of a San Diego City College counselor.

Associate of Arts Degree: Liberal Arts and Sciences: Social and Behavioral Sciences

These courses emphasize the study of cultural, literary, and humanistic activities of human beings. Students evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in cultural creation. Students also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments.

Common university majors in this emphasis include: Advertising, American Studies, Broadcast Media, Classics, Communication, Comparative Literature, Creative Writing, English, Ethics, Foreign Languages, Humanities, Journalism, Language Studies, Linguistics, Literature, Media Studies, Mass Communications, Philosophy, Public Relations, Religious Studies, Speech Communication, Television and Film, Women's Studies.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this major should be selected with the assistance of a San Diego City College counselor.

Courses Required for the Major:

Students should complete a minimum of 18 units in Social and Behavioral Science courses:

ADJU 101	Introduction to Administration of Justice	3
ADJU 102	Criminal Law I	3
ANTH 102	Introduction to Biological Anthropology	3
ANTH 103	Introduction to Cultural Anthropology	3
ANTH 104	Laboratory in Biological Anthropology	1
ANTH 107	Introduction to Archaeology	3

ANTH 115	Introduction to Archaeological Field Work	4	CHIL 176	Principles of Infant-Toddler Caregiving	3
ANTH 210	Introduction to California Indians	3	CHIL 180	Nutrition, Health and Safety for Children	3
BLAS 100	Introduction to Black Studies	3	CHIL 202	Administration of Early Childhood Programs	3
BLAS 104	Black Psychology	3	CHIL 210	Supervision of Early Childhood Programs	3
BLAS 115	Sociology from a Black Perspective	3	CISC 181	Principles of Information Systems	4
BLAS 116	Contemporary Social Problems from a Black Perspective	3	CISC 190	Java Programming	4
BLAS 120	Black Music	3	GEND 101	Introduction to Gender Studies	3
BLAS 130	The Black Family	3	GEOG 102	Cultural Geography	3
BLAS 135	Introduction to Black Politics	3	GEOG 104	World Regional Geography	3
BLAS 140A	African American History to Reconstruction	3	GISG 104	Geographic Information Science and Spatial Reasoning	3
BLAS 140B	African American History since Reconstruction to the Present	3	GISG 110	Introduction to Mapping and Geographic Information Systems	3
BLAS 145A	Introduction to African History	3	HIST 100	World History I	3
BLAS 145B	Introduction to African History	3	HIST 101	World History II	3
BLAS 150	Black Women in Literature, Film and the Media	3	HIST 105	Introduction to Western Civilization I	3
BLAS 155	African American Literature	3	HIST 106	Introduction to Western Civilization II	3
BLAS 165	Sexuality and Black Culture	3	HIST 109	History of the United States I	3
CHIC 110A	Introduction to Chicana and Chicano Studies	3	HIST 110	History of the United States II	3
CHIC 110B	Introduction to Chicana and Chicano Studies	3	HIST 115A	History of the Americas I	3
CHIC 130	Mexican Literature in Translation	3	HIST 115B	History of the Americas II	3
CHIC 135	Chicana/o Literature	3	HIST 120	Introduction to Asian Civilizations	3
CHIC 138	Literature of La Raza in Latin America in Translation	3	HIST 121	Asian Civilizations in Modern Times	3
CHIC 141A	United States History from a Chicano Perspective	3	HIST 123	U.S. History from the Asian Pacific American Perspective	3
CHIC 141B	United States History from a Chicano Perspective	3	HUMS 101	Introduction to Human Aging	3
CHIC 150	History of Mexico	3	HUMS 110	Social Work Fields of Service	3
CHIC 170	La Chicana	3	HUMS 120	Introduction to Social Work	3
CHIC 190	Chicano Images in Film	3	LIBS 101	Information Literacy and Research Skills	1
CHIC 201	The Indigenous Tradition of Mexico and Ancient Mesoamerica	3	MATH 119	Elementary Statistics	3
CHIC 210	Chicano Culture	3	or		
CHIL 101	Human Growth and Development	3	POLI 201	Elementary Statistics for Political Science	3
CHIL 133	Curriculum: Language, Literacy, and Art	3	or		
CHIL 135	Curriculum: Science, Math, and Music and Movement	3	PSYC 258	Behavioral Science Statistics	3
CHIL 141	The Child, Family and Community	3	PEAC 101	Introduction to Peace Studies	3
CHIL 151	Program Planning	3	POLI 101	Introduction to Political Science	3
CHIL 160	Observation and Assessment of Children	2	POLI 102	Introduction to American Government	3
CHIL 161	Observations and Issues in Child Development	2	POLI 103	Comparative Politics	3
CHIL 162	Positive Child Guidance	3	POLI 121	American Political Development	3
CHIL 175	Infant-Toddler Growth and Development	3	POLI 124	Power and Justice: An Introduction to Political Theory	3
			POLI 140	Contemporary International Politics	3
			PSYC 101	General Psychology	3
			PSYC 135	Marriage and Family Relations	3
			PSYC 137	Human Sexual Behavior	3
			PSYC 155	Introduction to Personality	3
			PSYC 161	Introduction to Counseling	3

PSYC 166	Introduction to Social Psychology	3
PSYC 230	Psychology of Lifespan Development	3
PSYC 245	Abnormal Psychology	3
PSYC 255	Introduction to Psychological Research	3
PSYC 260	Introduction to Physiological Psychology	3
PSYC 283	Introduction to Cognitive Psychology	3
SOCO 101	Principles of Sociology	3
SOCO 110	Contemporary Social Problems	3
SOCO 125	Sociology of the Family	3
SOCO 150	Sociology of Latinos/Latinas	3
SOCO 145	Health and Society	3
SOCO 201	Advanced Principles of Sociology	3
SOCO 220	Introduction to Research Methods in Sociology	3
SOCO 223	Globalization and Social Change	3
SPAN 201	Third Course in Spanish	5
or		
AMSL 220	American Sign Language Level III	5
or		
ARAB 201A	Third Course in Arabic	5
or		
FREN 201	Third Course in French	5
or		
ITAL 201	Third Course in Italian	5

Total Units = 18

Visual and Performing Arts:

These courses emphasize the study of artistic activities and artistic expression of human beings. Students evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments.

Common university majors in this emphasis include: Applied Design, Art, Art History, Arts and Crafts, Dance, Drama, Graphic Communications, Graphic Design, Industrial Arts, Painting and Printmaking, Photography, Sculpture, Studio Arts, Theatre Arts, Performing Arts.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this major should be selected with the assistance of a San Diego City College counselor.

Associate of Arts Degree: Liberal Arts and Sciences: Visual and Performing Arts

The Liberal Arts and Sciences Visual and Performing Arts Associate Degree offers students theoretical and practical approaches to the Arts, including Fine Arts, Theatre Arts, Dance, Music, and Photography. The varied program of study allows students to select courses that optimize their artistic goals. Students may select a program of courses to prepare them for continued study at the university level and/or for artistic work in the private sector.

Common university majors related to this emphasis include: Applied Design, Art, Art History, Arts and Crafts, Dance, Drama, Industrial Arts, Painting and Printmaking, Photography, Sculpture, Studio Arts, Multimedia, Theatre Arts, Performing Arts.

Common employment and business opportunities in the private sector related to this emphasis include: Audio and Video Equipment Technician, Sound Engineering Technician, Photographer, Art Educator, Arts Administrator, Ceramicist, Display Designer, Muralist, Painter, Sculptor, Amusement Park Entertainer/Dancer, Dance Instructor, Dance Company Manager, Dance Studio Owner, Stage Manager, Theatre/Stage Technical Work.

Note: The Liberal Arts and Sciences Visual and Performing Arts Associate of Arts Degree enables students to complete an associate degree with a minimum of 18 units. It is highly recommended that students work with a San Diego City College Counselor when selecting courses to fulfill their transfer and/or career goals.

Career Options

Careers in the Visual and Performing Arts typically require education beyond the Associate Degree. Students are encouraged to continue their education in the Visual and Performing Arts at the Baccalaureate and Graduate levels based on life and career goals.

Courses Required for the Major:

Students should complete a minimum of 18 units including in Visual and Performing Arts course.

Courses can only be counted once toward the major:

ARTF 100	Art Orientation	3
ARTF 104	Artists and Designers Today	3
ARTF 109	Modern Art	3
ARTF 110	Art History: Prehistoric to Gothic	3

ARTF 111	Art History: Renaissance to Modern	3	DANC 145A	Ballroom Dance I	1 - 1.5
ARTF 115	African Art	3	DANC 145B	Ballroom Dance II	1 - 1.5
ARTF 125	Art History: Arts of the Asian Continent	3	DANC 150A	Dance Making: Ballet	1
ARTF 150A	Two-Dimensional Design	3	DANC 151A	Dance Making: Jazz	1
ARTF 151	Three-Dimensional Design	3	DANC 152A	Dance Making: Modern	1
ARTF 155A	Freehand Drawing I	3	DANC 153A	Dance Making: Dance Theatre	1
ARTF 155B	Freehand Drawing II	3	DANC 176A	Dance Improvisation	1.5
ARTF 156A	Drawing for Animation	3	DANC 176B	Dance Improvisation II	1.5
ARTF 165A	Composition in Painting I	3	DANC 178A	Advanced Commercial Dance I	1.5
ARTF 165B	Composition in Painting II	3	DANC 178B	Advanced Commercial Dance II	1.5
ARTF 170A	Contemporary Crafts I	3	DANC 179A	Advanced Classical Dance I	1.5
ARTF 170B	Contemporary Crafts II	3	DANC 179B	Advanced Classical Dance II	1.5
ARTF 175A	Sculpture I	3	DANC 180A	Advanced Contemporary Dance I	1.5
ARTF 175B	Sculpture II	3	DANC 180B	Advanced Contemporary Dance II	1.5
ARTF 195A	Ceramics I	3	DANC 181	History of Dance	3
ARTF 195B	Ceramics II	3	DANC 183	Music for Dance	2
ARTF 196	Clay and Glaze Technology	3	DANC 253	Choreography	2
ARTF 197A	Handbuilding Ceramics I	3	DANC 261A	Dance Performance I	2
ARTF 197B	Handbuilding Ceramics II	3	DANC 261B	Dance Performance II	2
ARTF 198A	Introduction to Printmaking I	3	DANC 261C	Dance Performance III	2
ARTF 205A	Installation, Performance, and New Genres	3	DANC 261D	Dance Performance IV	2
ARTF 206	Art Entrepreneurship	3	DANC 271A	Stage Costuming for Dance	1 - 2
ARTF 207A	Industrial and Architectural Ceramic Design I	3	DANC 271B	Makeup for Dance Productions	1 - 2
ARTF 207B	Industrial and Architectural Ceramic Design II	3	DANC 271C	Lighting Design for Dance Production	1 - 2
ARTF 210A	Life Drawing I	3	DANC 271D	Sound Design for Dance Production	1 - 2
ARTF 210B	Life Drawing II	3	DRAM 103	Acting for Non-majors	3
ARTF 212	Sustainable Art and Design	3	DRAM 105	Introduction to Dramatic Arts	3
DANC 111	Global Dance Traditions	2	DRAM 107	Study of Filmed Plays	3
DANC 112A	Ballet I	1.5	DRAM 108	Playwriting	3
DANC 112B	Ballet II	1.5	DRAM 109	Theatre and Social Issues	3
DANC 112C	Ballet III	1.5	DRAM 124	Makeup for the Stage	3
DANC 112D	Ballet IV	1.5	DRAM 123	Beginning Stagecraft	3
DANC 117A	Tap Dance I	1.5	DRAM 126	Advanced Stagecraft	3
DANC 117B	Tap Dance II	1.5	DRAM 132	Beginning Acting	3
DANC 117C	Tap Dance III	1.5	DRAM 133	Intermediate Acting	3
DANC 117D	Tap Dance IV	1.5	DRAM 134	Beginning Voice for Actors	3
DANC 122A	Hip Hop I	1.5	DRAM 136	Theatre History I: Ancient Greece to the Renaissance	3
DANC 122B	Hip Hop II	1.5	DRAM 137	Theatre History II: Restoration to the Present	3
DANC 122C	Hip Hop III	1.5	DRAM 143	Beginning Costuming	3
DANC 122D	Hip Hop IV	1.5	DRAM 165	Introduction to Stage Movement	3
DANC 127	Movement for Wellness	2	DRAM 240A	Musical Theatre Repertoire I	4
DANC 130A	Dance Repertoire	1	DRAM 240B	Musical Theatre Repertoire II	4
DANC 137A	Jazz Dance I	1.5	DRAM 242A	Rehearsal and Performance I	3
DANC 137B	Jazz Dance II	1.5	DRAM 242B	Rehearsal and Performance II	3
DANC 137C	Jazz Dance III	1.5	MUSC 104	Composition Technology	3
DANC 137D	Jazz Dance IV	1.5	MUSC 118	Music Entrepreneurship	3
DANC 142A	Modern Dance I	1.5	MUSC 160	Introduction to Electro-Acoustic Music	3
DANC 142B	Modern Dance II	1.5	MUSC 162	Introduction to Recording and Sound Reinforcement	3
DANC 142C	Modern Dance III	1.5			
DANC 142D	Modern Dance IV	1.5			

MUSC 170A	Electro-Acoustic Ensemble I	1
MUSC 220A	Music Marketing and Promotion I	2
MUSC 252	Sound Design and Digital Audio Post Production	3
MUSC 260	Electro-Acoustic Music Composition	3
MUSC 262	Intermediate Recording and Sound Reinforcement	3
MUSI 108	The Business of Music	3
PHOT 100	Introduction to Black & White Photography	3
PHOT 109	Photographic Composition and Design	3
PHOT 125	Photo Business Operations	2
PHOT 143	Introduction to Digital Photography	3
PHOT 150	History of Photography	3
PHOT 180	Photo Editing: Lightroom	3
PHOT 181	Photo Editing: Photoshop	3
PHOT 259A	Photographic Portfolio I	3

Total Units = 18

Machine Technology

Award Type Units

Certificate of Performance:

Computer Aided Manufacturing	12
Computer Numerical Control (CNC) Operator Option	12
Computer Numerical Control (CNC) Technology Option	12

Certificate of Achievement:

Computer Numerical Control (CNC) Technology Option	20
Computer Aided Manufacturing (CAM) Option	32

Associate of Science Degree:

Computer Aided Manufacturing (CAM) Option	32*
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* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Machine Technology program offers a variety of instruction in the process of modern manufacturing. Emphasis is placed on CAD/CAM and C.N.C. technology.

Program Emphasis

The Machine Technology program prepares students for C.N.C. machining and is also ideal for students

who need to upgrade prior machine shop training to comply with the current needs of industry.

Faculty	Office	Telephone
Alexandra Perry	T-195B	619-388-3659

Career Options

CAD/CAM technician, C.N.C. machining technician

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate an understanding of common safety policies used in modern machining facilities.
- Utilize common measuring instruments to ensure projects are within given specifications.
- Solve common machining problems using various mathematical equations.
- Demonstrate knowledge of print reading and symbology.
- Setup machine tools to specification in a given time period.
- Machine projects to specifications using both conventional, and C.N.C. machines Create C.N.C. program using both "hand coding" and CAD/CAM software.
- Create designs, both basic and advance using CAD/CAM software.
- Complete necessary documentation and inspection forms as required.

Academic Programs

The certificates of performance and achievement and the associate degrees in Machine Technology require completion of the courses listed below.

Certificate of Performance: Computer Aided Manufacturing*

Courses:	Units
MACT 160M Introduction to CAD/CAM	4
MACT 170 Introduction to CNC Controlled Vertical Machining	4
MACT 180M Advanced CAD/CAM	4

Total Units = 12

Note: This is a two semester certificate. The department suggest students take MACT 160M first semester toward this certificate.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Computer Numerical Control (CNC) Operator Option*

Courses:	Units
MACT 150 Intro/Computer Numerical Control (CNC)	4
MACT 170 Introduction to CNC Controlled Vertical Machining	4
MACT 171 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers I	2
MACT 172 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers II	2
Total Units = 12	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Computer Numerical Control (CNC) Technology Option*

Courses:	Units
MACT 140 Machine Technology	4
MACT 150 Intro/Computer Numerical Control (CNC)	4
MACT 160M Introduction to CAD/CAM	4
Total Units = 12	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Computer Numerical Control (CNC) Technology Option

Courses Required for the Major:	Units
MACT 140 Machine Technology	4
MACT 150 Intro/Computer Numerical Control (CNC)	4
MACT 170 Introduction to CNC Controlled Vertical Machining	4
MACT 171 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers I	2
MACT 172 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers II	2

Complete the following additional course required for the major:

MACT 160M Introduction to CAD/CAM	4
Total Units = 20	

Recommended First Semester Enrollment:

MACT 140, Machine Technology
MACT 150, Intro to CNC & EDM
MACT 160M, Intro to CAD/CAM
MACT 161M, Applications of CAD/CAM I

Certificate of Achievement: Computer Aided Manufacturing (CAM) Option

Courses required for the Major:	Units
MACT 140 Machine Technology	4
MACT 150 Intro/Computer Numerical Control (CNC)	4
MACT 170 Introduction to CNC Controlled Vertical Machining	4
MACT 171 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers I	2
MACT 172 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers II	2

Complete the following additional courses required for the major:

MACT 161M Applications of CAD/CAM I	2
MACT 162M Applications of CAD/CAM II	2
MACT 180M Advanced CAD/CAM	4
MACT 181M Application in Advanced CAD/CAM I	2

MACT 182M Application in Advanced CAD/CAM II 2

and the following C.N.C. Technology Option certificate of achievement course:

MACT 160M Introduction to CAD/CAM 4

Total Units = 32

Recommended First Semester Enrollment:

MACT 140, Machine Technology

MACT 150, Intro to CNC & EDM

MACT 160M, Intro to CAD/CAM

MACT 161M, Applications of CAD/CAM I

Associate of Science Degree: Computer Aided Manufacturing (CAM) Option

An Associate of Science Degree may be earned in Computer Aided Manufacturing Option. Complete the Computer Aided Manufacturing Option Certificate of Achievement as specified above (32 units).

Courses required for the Major:		Units
MACT 140	Machine Technology	4
MACT 150	Intro/Computer Numerical Control (CNC)	4
MACT 170	Introduction to CNC Controlled Vertical Machining	4
MACT 171	Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers I	2
MACT 172	Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers II	2

Complete the following additional Computer Aided Manufacturing Option certificate of achievement courses:

MACT 161M Applications of CAD/CAM I 2

MACT 162M Applications of CAD/CAM II 2

MACT 180M Advanced CAD/CAM 4

MACT 181M Application in Advanced CAD/CAM I 2

MACT 182M Application in Advanced CAD/CAM II 2

and the following C.N.C. Technology Option certificate of achievement course:

MACT 160M Introduction to CAD/CAM 4

Total Units = 32

Recommended First Semester Enrollment:

MACT 140, Machine Technology

MACT 150, Intro to CNC & EDM

MACT 160M, Intro to CAD/CAM

MACT 161M, Applications of CAD/CAM I

Manufacturing Engineering Technology

Award Type	Units
Certificate of Performance:	
Advanced Manufacturing	11
Advanced Mechanical Design	10
Electronic Manufacturing	11
Introduction to Manufacturing	7.5
Lean Six Sigma	9
Manufacturing Fundamentals	13
Mechanical Design	9
Certificate of Achievement:	
Electronics Manufacturing	28
Fabrication Manufacturing	32
Associate of Science Degree:	
Manufacturing Engineering Technology Option: Electronics	32*
Manufacturing Engineering Technology Option: Fabrication	36*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

Manufacturing Engineering Technology (MFET) program provides students the opportunity to acquire highly valued skills in an innovative, hands-on learning environment. The program features integrating experiences through which students participate in all aspects of a manufacturing enterprise, from materials and processes to safety, design, automation, quality and lean manufacturing. Armed with these skills, MFET graduates can pursue rewarding, growth-oriented careers in such diverse industries as plastics, automotive, biomedical, electronics, aerospace, machining and other high-value manufacturing sectors.

Program Goals

The Manufacturing Engineering Technology (MFET) program is developed with two specific goals:

1. To train students with a high level of technical and non-technical skills, and prepare them for the highly competitive world of today's manufacturing.

- 2. To provide a continuous path for students to acquire a firm foundation of skills and knowledge in the field of manufacturing, transfer successfully to a 4-year college or university.

Career Options

Some careers in manufacturing engineering technology require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with a degree in manufacturing engineering technology include: manufacturing engineering technician, engineering technician, manufacturing operator, industrial engineering technicians, industrial production manager, and production and operating supervisor.

Program Learning Outcomes

MFET Option 1: Electronics Manufacturing

Upon successful completion of the Manufacturing Engineering Technology program with the option in Electronics Manufacturing, the student will be able to:

- Utilize, operate and measure the results of various test equipment to support product development.
- Demonstrate the knowledge of design tools used in electronics industry for product development.
- Identify and apply quality control tools used in electronics manufacturing industry.
- Explain and apply the fundamentals of electronics applications and theory.
- Describe different types of materials, process flows, equipment and techniques used to manufacture electronics products.

MFET Option 2: Fabrication Manufacturing

Upon successful completion of the Manufacturing Engineering Technology program with the option in Fabrication Manufacturing, the student will be able to:

- Identify and utilize CAD/CAM applications in various manufacturing processes.
- Explain product design to optimize manufacturing efficiency.
- Identify and apply quality control tools and instruments used in a manufacturing environment.

- Demonstrate proficiency in programming and operation of NC/CNC equipment.
- Describe different types of materials, process flows, equipment and techniques used in manufacturing.

Faculty	Office	Telephone
Kenneth Heifner	T-293C	619-388-3731

Academic Programs

The certificates of performance and achievement and associate degree require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Certificate of Performance: Advanced Manufacturing*

The Certificate of Performance in Advanced Manufacturing furthers student’s knowledge with the innovative experience and exposure to modern manufacturing practices.

Courses:	Units
MFET 110 Industrial Safety	2
MFET 150 Manufacturing Automation	3
MFET 210 Statistical Process Control	3
MFET 230 Lean Manufacturing	3
Total Units = 11	

Note: It is recommended that MFET 150 and MFET 210 be completed before taking MFET 230.

*A Certificate of Performance is a departmental award that does not appear on the student’s transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Electronic Manufacturing*

The Certificate of Performance in Electronic Manufacturing prepares students with necessary skills, knowledge, and experience to continue on with the coursework and projects in the MFET program.

Students learn skills in problem-solving methods used in manufacturing industries and develop fundamental knowledge of the programming,

setup, operation, and maintenance of electronic manufacturing systems. Students explore the study of automated electronic inspection and testing to complete electronic assembly rework, modification, and repair.

Courses:		Units
MFET 114	Problem Solving and Corrective Action	3
MFET 205	Introduction to Electronic Manufacturing Services	3
MFET 215	Automated PCBA Inspection and Testing	3
MFET 215L	Automated PCBA Inspection and Testing Laboratory	2
		Total Units = 11

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Introduction to Manufacturing*

This certificate prepares students with necessary skills, knowledge and experience to continue on with the coursework and projects in MFET program.

Courses:		Units
MFET 101	Introduction to Manufacturing Engineering Technology	3
MFET 105	Print Reading and Symbology	3

Choose one of the following:

MFET 107D	STEM Drone Building	1.5
MFET 107G	STEM Guitar Building	1.5
MFET 107H	STEM High Tech Device Building	1.5

Total Units = 7.5

Note: MFET 101 and MFET 105 could be taken in the same semester.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Manufacturing Fundamentals*

The Certificate of Performance on Manufacturing Fundamentals provides fundamental knowledge for students to enter the workforce in a manufacturing field.

Courses:		Units
MFET 101	Introduction to Manufacturing Engineering Technology	3
MFET 105	Print Reading and Symbology	3
MFET 115	Properties of Materials	3
MFET 120	Manufacturing Processes	4
		Total Units = 13

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Lean Six Sigma*

This certificate covers topics in quality, lean and six sigma, with both theoretical and hands-on training contents. The certificate prepares students for quality-related jobs, and also for taking the six sigma green belt or other quality-related certification.

Courses:		Units
MFET 210	Statistical Process Control	3
MFET 230	Lean Manufacturing	3
MFET 240	Six Sigma and Lean Implementation	3

Total Units = 9

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Electronics Manufacturing

The Certificate of Achievement in Electronics Manufacturing prepares the student for entry-level technician positions in the manufacturing or industrial technology fields with particular focus on electronics. Emphasis is placed on students learning and being able to use design tools and

test equipment used in the electronics industry for product development and manufacturing.

Note:

Students who successfully complete the Certificate of Achievement in Electronics Manufacturing are prepared to:

- Utilize and operate various test equipment, and use measurement results to support product development;
- Demonstrate the knowledge of design tools used in electronics industry for product development;
- Identify and apply quality control tools used in electronics manufacturing industry;
- Explain and apply the fundamentals of electronics applications and theory; and
- Describe different types of materials, process flows, equipment and techniques used to manufacture electronics products.

Courses Required for the Major:

MFET 101	Introduction to Manufacturing Engineering Technology	3
MFET 105	Print Reading and Symbology	3
MFET 110	Industrial Safety	2
MFET 115	Properties of Materials	3
MFET 120	Manufacturing Processes	4
MFET 150	Manufacturing Automation	3
MFET 210	Statistical Process Control	3
MFET 230	Lean Manufacturing	3
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1

Total Units = 28

Recommended electives: Manufacturing Engineering Technology 220.

Certificate of Achievement: Fabrication Manufacturing

The Certificate of Achievement in Fabrication Manufacturing prepares the student for entry-level technician positions in the manufacturing or industrial technology fields with particular focus on fabrication. Emphasis is placed on students learning and being able to use design tools and test equipment used in industry for product development and manufacturing.

Note:

Students who successfully complete the Certificate of Achievement in Fabrication Manufacturing are prepared to:

- Utilize and operate various test equipment, and use measurement results to support product development;
- Demonstrate the knowledge of design tools used in industry for product development;
- Identify and apply quality control tools used in manufacturing industries;
- Explain and apply the fundamentals of manufacturing applications and theory; and
- Describe different types of materials, process flows, equipment and techniques used to manufacture products.

Courses Required for the Major: Units

MFET 101	Introduction to Manufacturing Engineering Technology	3
MFET 105	Print Reading and Symbology	3
MFET 110	Industrial Safety	2
MFET 115	Properties of Materials	3
MFET 120	Manufacturing Processes	4
MFET 150	Manufacturing Automation	3
MFET 210	Statistical Process Control	3
MFET 230	Lean Manufacturing	3
MACT 150	Intro/Computer Numerical Control (CNC)	4
MACT 160M	Introduction to CAD/CAM	4

Total Units = 32

Recommended electives: Manufacturing Engineering Technology 220.

Associate of Science Degree: Manufacturing Engineering Technology – Option: Electronics

The Associate of Science Degree in Manufacturing Engineering Technology with Electronics Option prepares students with necessary skills, knowledge and experience to take on important roles as team members or leaders in an electronics manufacturing enterprise.

Note: *The courses for this degree include the courses which make up the Certificate of Performance in Advanced Manufacturing and the Certificate of Performance in Manufacturing Fundamentals as well as additional courses. MFET 110 Industrial Safety can be taken any semester available. Electronics course(s) may be taken when offered.*

Courses Required for the Major:

MFET 101	Introduction to Manufacturing Engineering Technology	3
MFET 105	Print Reading and Symbology	3
MFET 110	Industrial Safety	2
MFET 115	Properties of Materials	3
MFET 120	Manufacturing Processes	4
MFET 150	Manufacturing Automation	3
MFET 210	Statistical Process Control	3
MFET 230	Lean Manufacturing	3
ELDT 123	Introduction to Digital Circuits	3
and		
ELDT 123L	Digital Circuits Laboratory	1
PHYS 100	Introductory Physics	4
or		
CHEM 100	Fundamentals of Chemistry	3
and		
CHEM 100L	Fundamentals of Chemistry Laboratory	1
		Total Units = 32

Recommended Electives: Manufacturing Engineering Technology 240, 250 or 270.

Associate of Science Degree Manufacturing Engineering Technology – Option: Fabrication

The Associate of Science Degree in Manufacturing Engineering Technology with Fabrication Option prepares students with necessary skills, knowledge and experience to take on important roles as team members or leaders in a fabrication manufacturing enterprise.

The courses for this degree/certificate include the courses which make up the Certificate of Performance in Advanced Manufacturing and the Certificate of Performance in Manufacturing Fundamentals as well as additional courses.

Courses Required for the Major:		Units
MFET 101	Introduction to Manufacturing Engineering Technology	3
MFET 105	Print Reading and Symbology	3
MFET 110	Industrial Safety	2
MFET 115	Properties of Materials	3
MFET 120	Manufacturing Processes	4
MFET 150	Manufacturing Automation	3
MFET 210	Statistical Process Control	3
MFET 230	Lean Manufacturing	3
MACT 150	Intro/Computer Num Control (CNC) and Elec Dis Mach	4
MACT 160M	Introduction to CAD/CAM	4

PHYS 100	Introductory Physics	4
or		
CHEM 100	Fundamentals of Chemistry	3
and		
CHEM 100L	Fundamentals of Chemistry Laboratory	1
		Total Units = 36

Recommended electives: Manufacturing Engineering Technology 240, 250, 270, Engineering 151.

Note: MFET 110 Industrial Safety can be taken any semester available. Electronics course(s) may be taken when offered.

Mechanical Design Technology

Description:

Mechanical Design Technology graduates pursue careers in industry in the areas of industrial machinery, consumer products, construction, automotive, power transmission, automation, and other mechanical machinery related fields. Related areas of employment include sales, manufacturing and testing mechanical products. Graduates create designs as well as analyze and specify the components and systems of machinery and products.

Program Emphasis:

The curriculum is based on integrated technical and core competencies (machine technology, engineering design, engineering sciences), and it emphasizes a project-based learning format. Students work in teams to learn concepts, solve problems and make discoveries in a workplace-related environment. Students use traditional, internet and industry supplied data as sources of information.

Program Goals:

Provide local and regional industry with skilled workers in the field of Mechanical Design.

Faculty	Office	Telephone
Justin Bond	T-293D	619-388-3875
Farnaz Khoromi	T-373	619-388-3527

Career Options:

Mechanical Designer, CAD Designer, Machinery Field Technician, Tool and Die Designer

Program Learning Outcomes

Students who complete the program will be able to:

- Demonstrate knowledge of print reading and symbology.
- Generate MasterCAM programs at a basic level for both the Computer Numerical Control (CNC) Mill and CNC Lathe.
- Use a three-dimensional software to develop a mechanical design.

Certificate of Performance: Advanced Mechanical Design*

Courses:	Units
MFET 115 Properties of Materials	3
MACT 160M Introduction to CAD/CAM	4
ENGE 152 Engineering Design	3
Total Units = 10	

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Mechanical Design*

Courses:	Units
MACT 150 Intro/Computer Numerical Control (CNC)	4
MFET 105 Print Reading and Symbology or	
ENGE 108 Dimensioning and Tolerancing	3
ENGE 151 Computer-Aided Design	2
Total Units = 9	

Recommended Electives: Physics 100.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Mathematics

Award Type	Units
Associate of Arts Degree:	
Applied Mathematics	23*
Mathematics	22–23*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Associate in Science for Transfer Degree:	
Mathematics	19–21

Description

Mathematics is the study of numbers, structures, and associated relationships using rigorously defined literal, numerical, and operational symbols. Given certain conditions about systems of numbers or other objects, mathematicians derive conclusions based on logical arguments. The development of analytic mathematical skills enable a person to solve numerical problems encountered in daily life, and are applied to numerous applications in the physical, social, and life sciences.

The Mathematics Program at San Diego City College strives to provide a learner-centered environment where students can develop and become practitioners of mathematics. We emphasize the development of quantitative analysis and critical thinking, to prepare students to become life-long scholars, and contribute to the global community as independent and informed thinkers and professionals.

Program Emphasis

The mathematics curriculum includes courses that range from basic skills through differential equations. The basic skills and associate degree level courses provide students with the mathematical preparation necessary for study in other disciplines, as well as for degree and transfer requirements. Successful completion of a mathematics degree will develop competence in mathematics through differential and integral calculus, providing an adequate background for employment in many technological and scientific areas. Furthermore, it provides a firm foundation for students planning to study mathematics, engineering, economics, computer science, physical, social or life sciences.

Career Options

Most of these occupations require education beyond the associate degree, and some may require a graduate degree. The following list is not intended as a comprehensive list of career options in mathematics: actuary, appraiser, assessor, auditor, biometrician, budget analyst, controller, computer analyst, computer programmer, demographer, econometrician, engineering analyst, epidemiologist, financial analyst, investment analyst, management scientist, operations researcher, research mathematician, statistician, surveyor, systems analyst, teacher, technical writer, and urban planner.

Program Learning Outcomes

- Students who complete this program will be able to analyze, model, and clearly and effectively communicate a solution to a math problem.
- Students who complete this program will be able to apply mathematical skills to solve and accurately describe their process for real-world problems relevant to their major.
- Students who complete this program will be able to solve routine mathematical problems using proper mathematical notation, in multiple ways if applicable.
- Students who complete this program will be able to apply technology to enhance mathematical thinking and understanding and to solve mathematical problems.
- Students will know about on-campus resources that will promote success in their math classes. This outcome expands into the transfer level coursework.

Faculty	Office	Telephone
Misael Camarena	MS-333	619-388-3637
Brenda Long	MS-332	619-388-3185
Theresa Gallo	MS-337	619-388-3350
Chris Godbout	MS-333	619-388-3546
Carlos de la Lama	MS-340B	619-388-3362
Lan Hong	MS-331	619-388-3351
Jenny Kimm	MS-337	619-388-3638
Tracey Kiser	L-208D	619-388-3590
Clara Mateo	MS-332	619-388-3646
Drazen Petrovic	MS-338	619-388-3252

Faculty	Office	Telephone
Robert Rubalcaba	MS-331	619-388-3639
Nick Slinglend	MS-336	619-388-3178
Manfred C. Smith	MS-335	619-388-3352
Paul Young	MS-334	619-388-3251
Mathematics Center	L-208	619-388-3580

Academic Programs

The Mathematics program offers students an associate degree option designed to prepare them for working in STEM related fields and/or to transfer to four-year institutions. The Associate of Arts Degree in Mathematics requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: Mathematics

Courses Required for the Major:	Units
MATH 150 Calculus with Analytic Geometry I	5
MATH 151 Calculus with Analytic Geometry II	4
MATH 245 Discrete Mathematics	3
MATH 252 Calculus with Analytic Geometry III	4
MATH 254 Introduction to Linear Algebra	3

Select 3–4 units from:

MATH 107 Introduction to Scientific Programming	3
and	
MATH 107L Introduction to Scientific Programming Lab	1
MATH 119 Elementary Statistics	3
MATH 255 Differential Equations	3
PHIL 101 Symbolic Logic	3

Total Units = 22–23

Associate of Arts Degree: Applied Mathematics

The Mathematics program offers students an associate degree option designed to prepare them for working in STEM related fields and/or to transfer to four-year institutions. The Associate of Arts Degree in Applied Mathematics requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Courses Required for the Major:		Units
MATH 107	Introduction to Scientific Programming	3
MATH 107L	Introduction to Scientific Programming Lab	1
MATH 150	Calculus & Analytical Geometry I	5
MATH 151	Calculus & Analytical Geometry II	4
MATH 245	Discrete Mathematics	3
MATH 252	Calculus & Analytical Geometry III	4
MATH 254	Introduction to Linear Algebra	3
Total Units = 23		

Associate in Science in Mathematics for Transfer Degree:

Program Description:

The Associate in Science in Mathematics for Transfer Degree is intended for students who plan to complete a bachelor's degree in Mathematics or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

Note: It is recommended that students intending to transfer to San Diego State University (SDSU) Mathematics, Emphasis in Science major should complete the courses marked with a "#". Students intending to transfer into this major at other CSUs should consult a counselor and visit www.assist.org for guidance on appropriate coursework.

*Course also fulfills general education requirements for the CSU GE or IGETC pattern.

** Both courses must be completed prior to completing the degree to receive credit for SDSU.

This course fulfills SDSU's lower division preparation for the major in Mathematics under the TMC.

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

Electives as needed to meet maximum of 60 CSU-transferable units required for the degree.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
MATH 150	Calculus with Analytic Geometry I #*	5
MATH 151	Calculus with Analytic Geometry II #*	4
MATH 252	Calculus with Analytic Geometry III #*	4

Select one of the following courses:

MATH 254	Introduction to Linear Algebra #*	3
MATH 255	Differential Equations *	3

Select one of the following courses if not selected above: (*It is recommended that students select courses that meet lower division major preparation requirements for their transfer university.*)

MATH 107	Introduction to Scientific Programming **	3
and		
MATH 107L	Introduction to Scientific Programming Lab **	1
MATH 119	Elementary Statistics #* or	
PSYC 258	Behavioral Science Statistics *#	3
MATH 245	Discrete Mathematics *#	3
MATH 254 ¹	Introduction to Linear Algebra * or	
MATH 255 ¹	Differential Equations *	3
CISC 186	Visual Basic Programming	4
CISC 190	Java Programming	4
CISC 192	C/C++ Programming	4
PHYS 195	Mechanics *	5

¹MATH 254 or MATH 255 if not used in category A above.

Total Units = 19–21

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the

Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student’s specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Music – Commercial

Award Type	Units
Certificate of Achievement: Audio Production Technology	18
Associate of Science Degree: Music Production Technology	31*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

The Music major at San Diego City College is one of six programs in the Visual and Performing Arts. The Commercial Music program is designed to provide students with the practical career-oriented skills required to enter the commercial music industry. Students receive hands-on experience in professional music production, audio software and hardware development using current music industry technologies.

This program is ideal for students seeking to be trained in a field different from their previous work experience, and offers an affordable alternative to more costly private college and university programs in this field of study. In addition to new employment and career opportunities, the study and practice of writing, producing, recording, editing, marketing, promoting, and performing music and audio for a variety of media encourages students to be more fully engaged in public affairs and to participate as citizens in local and global communities.

San Diego City College is a certified Avid Learning Partner with Avid Technology, Inc. Students will gain hands-on experience with Avid products that are now used in the television and video industry. Under the guidance of certified Avid Instructors (ACI), students will benefit from courses that specialize in audio products and solutions such as Pro Tools digital audio software and

workstation solutions. These products help to facilitate the audio production process, including music and sound creation, recording, editing, signal processing, integrated surround mixing and mastering, and reference video playback; and a range of complementary control surfaces and consoles, including the System 5 and System 6 modular consoles, as well as Sibelius-branded notation software. San Diego City College plans to incorporate the VENUE live-sound systems as part of the students’ academics in the near future. Students who complete Avid Learning Partner courses at San Diego City College will belong to a national Avid database of trained users and potentially find employment while completing their certificate or degree requirements.

San Diego City College also partners with Audinate to certify students in Dante Proctol. This certification provides a useful background in audio and computer networking for audio professionals, and does not assume any previous background in computer networking. It provides a foundation in audio and networking concepts and covers all that is required to assemble and operate a stand-alone Dante audio system. This certification includes topics related to networked audio such as IP Networking & IP Encapsulation, clocking, system redundancy, managing devices on a Dante network with the Dante Controller software, Layered Network Models, Class based QoS, VLANs Subnets and Routing, and Bandwidth Utilization. Upon completion of Dante-related courses at San Diego City College, students belong to a national Audinate database of trained users and potentially find employment while completing their certificate or degree requirements.

Career Options

Most careers in commercial music can be obtained with a bachelor’s degree. Although not a comprehensive list, some of the most common career options with a degree in commercial music include: entry-level studio engineer; live sound engineer; radio, television, music production; audio production for theatre; music composition for film, television and games; digital media production; digital content editor; music publication; media management and marketing; and retail sales of professional audio equipment.

Faculty	Office	Telephone
Michael Espar	C-202B	619-388-3229
Robert Kostlan	C-202C	619-388-3933

Certificate of Achievement: Audio Production Technology

The Certificate of Achievement in Audio Production Technology is designed to provide students with practical, career-oriented skills in professional audio production using current music industry technologies. The certificate emphasizes basic musical fundamentals, live sound reinforcement, microphone and recording techniques, mixing and mastering skills, MIDI (Musical Instrument Digital Interface) sequencing and programming, audio software and hardware development, audio post production for video and gaming, and audio for multimedia. In addition, students are introduced to, and guided through, self-promotion skills using multimedia and social networking tools specific to the music industry.

Note:

Upon successful completion of the Certificate of Achievement in Audio Production, students should be able to:

- Analyze the media's impact on the public;
- Operate audio software and hardware equipment;
- Compose original music;
- Record and produce all forms of audio in digital media content;
- Participate in the local and global music community; and
- Perform at or facilitate live events.

Courses:	Units
MUSC 104 Composition Technology	3
MUSC 160 Introduction to Electro-Acoustic Music	3
MUSC 162 Introduction to Recording and Sound Reinforcement	3
MUSC 252 Sound Design and Digital Audio Post Production	3
MUSC 260 Electro-Acoustic Music Composition	3
MUSC 262 Intermediate Recording and Sound Reinforcement	3
Total Units = 18	

Associate of Science Degree: Music Production Technology

The Associate of Science in Music Production Technology is designed to provide students with practical, career-oriented skills in professional

audio production using current music industry technologies. The certificate emphasizes basic musical fundamentals, live sound reinforcement, microphone and recording techniques, mixing and mastering skills, MIDI (Musical Instrument Digital Interface) sequencing and programming, audio software and hardware development, and audio post production for video and gaming. In addition, students are introduced to, and guided through, marketing and promotion skills using multimedia and social networking tools specific to the music industry.

Courses Required for the Major:	Units
MUSC 104 Composition Technology	3
MUSC 118 Music Entrepreneurship	3
MUSC 160 Introduction to Electro-Acoustic Music	3
MUSC 162 Introduction to Recording and Sound Reinforcement	3
MUSC 170A Electro-Acoustic Ensemble I	1
MUSC 170B Electro-Acoustic Ensemble II	1
MUSC 170C Electro-Acoustic Ensemble III	1
MUSC 220A Music Marketing and Promotion I	2
MUSC 220B Music Marketing and Promotion II	2
MUSC 260 Electro-Acoustic Music Composition	3
MUSC 252 Sound Design and Digital Audio Post Production	3
MUSC 262 Intermediate Recording and Sound Reinforcement	3
MUSI 108 The Business of Music	3
Total Units = 31	

Nursing Education

Award Type	Units
LVN – Thirty Unit Option	29
Associate of Science Degree:	
Licensed Vocational Nurse to Registered Nurse (Advanced Placement)	45*
Registered Nurse: Generic	62*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	

Description

Nursing is a profession which provides health care to individuals of all ages. Nursing encompasses many activities including health promotion, health maintenance, health care during illness and injury and rehabilitation. Nurses apply knowledge from the

biological, physical, behavioral and nursing sciences to care for clients in varied settings. The purpose of the San Diego City College Nursing program is to provide an educational opportunity for qualified individuals interested in a career in nursing.

Admission to the program is by special application. Information packets and applications are available online at: <http://sdcity.edu/academics/schools-programs/math-engin-tech/nursing/index.aspx>

Prospective students are responsible for obtaining these materials in order to acquaint themselves with the admission policies and procedures. Information is also available at the Nursing workshops, held once a month. Schedule found on Nursing website.

Returning students previously accepted to the City College's Nursing Education Program (NEP) may be required to repeat a successfully completed course prior to program re-admittance. Consult a Nursing Advisor for more details.

Progression in the Nursing Education Program (NEP) requires a passing grade of 75% or higher in each NRSE course. Successful completion of each course is required to progress in the NEP regardless of the course taken. The student may re-apply to return the following year.

The San Diego City College Nursing Education program is fully approved by the California Board of Registered Nursing (BRN) and the Accreditation Commission for Education in Nursing (ACEN). Inquiries regarding accreditation may be made by contacting the BRN at P.O. Box 944210, Sacramento, CA 94244, 916-322-3350 or ACEN at 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, 404-975-5000.

Directed Clinical Practice Requirement

Students accepted into this program will be required to successfully complete Directed Clinical Practice/clinically-based courses held in health care facilities. These facilities require background checks and urine drug screening as a condition of placement.

Refusal to submit to a background check, or failure to meet clearance criteria established by the health care facility, may prevent placement in the Directed Clinical Practice/clinically-based course and thus, it may not be possible to successfully progress in or complete the program.

Health care facilities also require adherence to strict standards of conduct. Facilities may refuse educational access to any person who does not adhere to the facility's standards of safety, health

and ethical behavior. This may be cause for removal from the program.

Program Emphasis

Curriculum and course sequence progress from simple to complex knowledge and skills with emphasis on nursing process, caring, problem solving and critical thinking. The Associate Degree of Nursing graduate is prepared as a clinician to think critically, using the nursing process, to safely perform nursing care, teach individuals, families, communities and members of the health care team, function as a client advocate, provide leadership, manage resources, delegate and supervise within the legal scope of practice of the Registered Nurse. The student who completes the ADN program will meet the standards of competency, delineated by the Board of Registered Nursing for the State of California and adhere to all policies as written in the Nursing Student Handbook.

Career Options

The Registered Nurse cares for clients of all ages and may be employed at the entry level in a variety of settings such as hospitals, skilled nursing facilities, clinics and home health agencies. Many careers in nursing require education beyond the associate degree.

Program Learning Outcomes

- Apply concepts and skills to successfully pass the National Council Licensure Exam for Registered Nurses (NCLEX-RN).
- Make clinical judgments and management decisions to ensure accurate and safe client care.
- Practice within the ethical, legal, and regulatory frameworks of the professional nursing practice.
- Use standards of nursing practice to perform and evaluate client care in entry-level practice.
- Participate in life-long learning.

	Office	Telephone
Administrative Assistant III		
Susan Chandler	V-312N	619-388-3441
Nursing Counselor		
Laura Renker	V-312I	619-388-3897

	Office	Telephone
Nursing Mental Health Liaison Nursing Education		
Tristan Hartley	V-312J	619-388-3039

Associate Dean & Director, Nursing Education		
Dometrives Armstrong	V-312C	619-388-3762

Faculty	Office	Telephone
Dorothy Fis	V-312H	619-388-3891
Allison Hart	V-312E	619-388-3789
Alison Palleschi	V-312	619-388-3811
Catherine Shafer	V-312A	619-388-3894
Susan Smith	V-312F	619-388-3439
Erelyn Vinegas	V-312B	619-388-3886
Vasugi White	V-312G	619-388-3896

Academic Programs

The Associate of Science Degree in Nursing requires completion of the nursing courses. Additional general education and graduation requirements for the associate degree are listed in the catalog.

Associate of Science Degree: Nursing Education

Registered Nurse: Generic

The Associate of Science Degree in Nursing (ADN) curriculum prepares entry-level Registered Nurses (RN) as providers of care across the health/illness continuum and as members within the profession. The curriculum respects the individuality of the student and aims to provide a positive, innovative learning model that fosters the development of critical thinking and problem solving skills so that the Registered Nurse is equipped to deliver care to a culturally diverse population in a variety of healthcare settings. Registered Nurses collaborate with members of the health care team, are effective communicators, are politically aware, and demonstrate a commitment to lifelong learning. Upon successful completion of program requirements, graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Admission to the program is by special application. Information packets and applications are available online at: <https://www.sdccity.edu/academics/schools-programs/math-sci-nurse/nursing/index>.

[aspx](#). Prospective students are responsible for obtaining these materials in order to acquaint themselves with the admission policies and procedures.

The San Diego City College Nursing Education program is fully approved by the California Board of Registered Nursing (BRN) and the Accreditation Commission for Education in Nursing (ACEN). Inquiries regarding accreditation may be made by contacting the BRN at 400 R Street, Suite 4030, Sacramento, CA 94244, (916) 322-3350 or ACEN at 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326, (404) 975-5000

Award Notes:

The Board of Registered Nursing (BRN) requires 6 units of Communication, verbal, written and group; satisfied by ENGL 101 and COMS 103; and 16 units of Natural, Behavioral and Social sciences; satisfied by the BIOL 205, 230 and 235 prerequisites, PSYC 101 & ANTH 103 or SOCO 101 or 110.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions. Students interested in transfer should meet with the nursing education counselor.

*It is strongly recommended that all of the general education requirements be completed prior to admission to the nursing education program or during summer sessions.

Emphasis:

Curriculum and course sequence progress from simple to complex knowledge and skills with emphasis on nursing process, caring, problem solving and critical thinking. The ADN graduate is prepared as a clinician to think critically, using the nursing process, to safely perform nursing care, teach individuals, families, communities and members of the health care team, function as a client advocate, provide leadership, manage resources, delegate and supervise within the legal scope of practice of the Registered Nurse. The student who completes the ADN program will meet the standards of competency, delineated by the Board of Registered Nursing for the State of California.

Career Options:

The Registered Nurse cares for clients of all ages and may be employed at the entry level in a variety of settings such as hospitals, skilled nursing facilities, clinics and home health agencies. Many careers in nursing require education beyond the associate degree.

Program Prerequisites:		Units
BIOL 205	General Microbiology	5
BIOL 230	Human Anatomy	4
BIOL 235	Human Physiology	4
Courses Required for the Major:		Units
ENGL 101	Reading and Composition	3
PSYC 101	General Psychology	3
COMS 103	Oral Communication or	
COMS 135	Interpersonal Communication	3
ANTH 103	Introduction to Cultural Anthropology or	
SOCO 101	Principles of Sociology or	
SOCO 110	Contemporary Social Problems	3
NRSE 140	Foundations of Nursing	4.5
NRSE 141	Pharmacology for Nursing	1
NRSE 142	Medical Surgical Nursing I	4.5
NRSE 144	Medical Surgical Nursing II	4.5
NRSE 146	Maternal-Child Health Nursing	4.5
NRSE 240	Medical/Surgical Nursing III	4.5
NRSE 242	Mental Health & Gerontological Nursing	4.5
NRSE 244	Medical Surgical Nursing IV	4.5
NRSE 246	Leadership in Nursing	4.5

Total Units = 62

Recommended electives: Nursing 92, 121, 108, 143, 145, 147, 206, 208, 241, 243, 245, 270.

Associate of Science Degree: Nursing Education

Licensed Vocational Nurse to Registered Nurse (Advanced Placement)

The Associate of Science Degree in Nursing (ADN) LVN to RN step-up program curriculum prepares entry-level Registered Nurses (RN) as providers of care across the health/illness continuum and as members within the profession. The curriculum respects the individuality of the student and aims to provide a positive, innovative learning model that fosters the development of critical thinking and problem solving skills so that the Registered Nurse is equipped to deliver care to a culturally diverse population in a variety of healthcare settings. Registered Nurses collaborate with members of the health care team, are effective communicators, are politically aware, and demonstrate a commitment to lifelong learning. Upon successful completion of program requirements, graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Admission to the program is by special application. Information packets and applications are available online at: <http://sdcity.edu/academics/schools-programs/math-engin-tech/nursing/index.aspx>

Prospective students are responsible for obtaining these materials in order to acquaint themselves with the admission policies and procedures.

The San Diego City College Nursing Education program is fully approved by the California Board of Registered Nursing (BRN) and the Accreditation Commission for Education in Nursing (ACEN). Inquiries regarding accreditation may be made by contacting the BRN at P.O. Box 944210, Sacramento, CA 94244, 916-322-3350 or ACEN at 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326. 404-975-5000.

Award Notes:

The Board of Registered Nursing (BRN) requires 6 units of Communication, verbal, written and group; satisfied by ENGL 101 and COMS 103; and 16 units of Natural, Behavioral and Social sciences; satisfied by the BIOL 205, 230 and 235 prerequisites, PSYC 101 & ANTH 103 or SOCO 101 or 110.

This degree is designed to accommodate the differing requirements of a wide variety of transfer institutions. Students interested in transfer should meet with the nursing education counselor.

*It is strongly recommended that part or all of the general education requirements be completed prior to admission to the nursing education program.

Emphasis:

Curriculum and course sequence progress from simple to complex knowledge and skills with emphasis on nursing process, caring, problem solving and critical thinking. The ADN graduate is prepared as a clinician to think critically, using the nursing process, to safely perform nursing care, teach individuals, families, communities and members of the health care team, function as a client advocate, provide leadership, manage resources, delegate and supervise within the legal scope of practice of the Registered Nurse. The student who completes the LVN to RN step-up ADN program will meet the standards of competency, delineated by the Board of Registered Nursing for the State of California.

Career Options:

The Registered Nurse cares for clients of all ages and may be employed at the entry level in a variety of settings such as hospitals, skilled nursing facilities, clinics and home health agencies. Many careers in

nursing require education beyond the associate degree.

Program Prerequisites:		Units
BIOL 205	General Microbiology	5
BIOL 230	Human Anatomy	4
BIOL 235	Human Physiology	4
Courses Required for the Major:		Units
ENGL 101	Reading and Composition	3
PSYC 101	General Psychology	3
COMS 103	Oral Communication or	
COMS 135	Interpersonal Communication	3
ANTH 103	Introduction to Cultural Anthropology or	
SOCO 101	Principles of Sociology or	
SOCO 110	Contemporary Social Problems	3
NRSE 235	LVN to RN Transition	2
NRSE 240	Medical/Surgical Nursing III	4.5
NRSE 242	Mental Health & Gerontological Nursing	4.5
NRSE 244	Medical Surgical Nursing IV	4.5
NRSE 246	Leadership in Nursing	4.5
Total Units = 45		

Recommended Electives: Nursing 92, 206, 208, 241, 243, 245.

Nursing Education

Licensed Vocational Nurse to Registered Nurse, Thirty-Unit Option – Licensure Only (No paper award given)

The LVN to RN 30 Unit Option program curriculum prepares entry-level Registered Nurses (RN) as providers of care across the health/illness continuum and as members within the profession. The curriculum respects the individuality of the student and aims to provide a positive, innovative learning model that fosters the development of critical thinking and problem solving skills so that the Registered Nurse is equipped to deliver care to a culturally diverse population in a variety of healthcare settings. Registered Nurses collaborate with members of the health care team, are effective communicators, are politically aware, and demonstrate a commitment to lifelong learning. Upon successful completion of program requirements, the person completing the LVN to RN 30 Unit Option will be eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Admission to the program is by special application. Information packets and applications are available online at: <http://sdcity.edu/academics/schools-programs/math-engin-tech/nursing/index.aspx>

Prospective students are responsible for obtaining these materials in order to acquaint themselves with the admission policies and procedures.

The San Diego City College Nursing Education program is fully approved by the California Board of Registered Nursing (BRN) and the Accreditation Commission for Education in Nursing (ACEN). Inquiries regarding accreditation may be made by contacting the BRN at P.O. Box 944210, Sacramento, CA 94244, 916-322-3350 or ACEN at 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326. 404-975-5000.

Award Notes:

The Board of Registered Nursing (BRN) requires 6 units of Communication, verbal, written and group; satisfied by ENGL 101 and COMS 103; and 16 units of Natural, Behavioral and Social Sciences; satisfied by the BIOL 205 and 235 prerequisites, PSYC 101 and ANTH 103 or SOCO 101 or 110.

*It is strongly recommended that all of the general education requirements be completed prior to admission to the nursing education program.

Note: Other States may not recognize the LVN to RN Thirty Unit Option as a method to satisfy the requirements for licensure as a Registered Nurse. Interested candidates are urged to contact the respective Boards of Nursing for additional information.

Emphasis:

Curriculum and course sequence progress from simple to complex knowledge and skills with emphasis on nursing process, caring, problem solving and critical thinking. The person who completes the LVN to RN 30 Unit Option is prepared as a clinician to think critically, using the nursing process, to safely perform nursing care, teach individuals, families, communities and members of the health care team, function as a client advocate, provide leadership, manage resources, delegate and supervise within the legal scope of practice of the Registered Nurse. The student who completes the LVN to RN 30 Unit Option will meet the standards of competency, delineated by the Board of Registered Nursing for the State of California.

Career Options:

The Registered Nurse cares for clients of all ages and may be employed at the entry level in a variety of

settings such as hospitals, skilled nursing facilities, clinics and home health agencies. Many careers in nursing require education beyond the associate degree.

**Program Prerequisites:		Units
BIOL 205	General Microbiology	5
BIOL 235	Human Physiology	4
Courses Required for the Major:		Units
NRSE 235	LVN to RN Transition	2
NRSE 240	Medical/Surgical Nursing III	4.5
NRSE 242	Mental Health & Gerontological Nursing	4.5
NRSE 244	Medical Surgical Nursing IV	4.5
NRSE 246	Leadership in Nursing	4.5
Total Units = 29		

Recommended Electives: Nursing 92, 206, 208, 241, 243, 245.

Transfer Information

Common university majors related to the field of Nursing include: Nursing

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Philosophy

Award Type	Units
Associate of Arts Degree:	
Philosophy	18*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
Philosophy	18

Description

The study of philosophy acquaints students with the nature of philosophical activity and helps them increase critical thinking skills about fundamental philosophical concerns such as the nature of correct reasoning, the scope and limits of human knowledge, characteristics of reality, and questions of value and obligation. As such, the first objective of the philosophy program is to teach students how to think critically, with an emphasis on analytic reasoning. The program's second objective is to prepare students for university-level philosophy courses, and, because philosophy relates to many other academic disciplines and stresses systematic and abstract thought, university-level courses generally.

Program Emphasis

The Philosophy curriculum meets general education Humanities requirements for both the associate degree and universities, and prepares for transfer to university majors

Career Options:

Most careers in this list require education beyond the associate degree. A sample list of careers in which background knowledge of philosophy is appropriate include: education, human service vocations, business, law, management, medicine, publishing, scientific research, teaching, and theology.

Academic Programs

The philosophy curriculum meets general education humanities requirements for both the associate degree and universities, and prepares students for transfer to university majors.

The associate degree in philosophy requires completion of the courses listed for the degree.

Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Program Learning Outcomes

- To increase the student’s critical thinking skills in considering fundamental philosophical concerns such as the nature of correct reasoning, the scope and limits of human knowledge, characteristics of reality and questions of value and obligation.

Faculty	Office	Email
Soon-Ah Fadness	T-345	sfadness@sdccd.edu
William Stewart	T-343	wstewart@sdccd.edu

Associate of Arts: Philosophy

Courses Required for the Major:		Units
PHIL 100	Logic and Critical Thinking	3
PHIL 101	Symbolic Logic	3

Select one of the two-semester sequences:

PHIL 102A	Introduction to Philosophy: Reality and Knowledge	3
and		
PHIL 102B	Introduction to Philosophy: Values	3
or		
PHIL 104A	History Of Western Philosophy: Ancient to Medieval	3
and		
PHIL 104B	History of Western Philosophy: Modern to Contemporary	3

Select six units from:

PHIL 102A	Introduction to Philosophy: Reality and Knowledge	3
PHIL 102B	Introduction to Philosophy: Values	3
PHIL 103	Historical Introduction To Philosophy	3
PHIL 104A	History Of Western Philosophy: Ancient to Medieval	3
PHIL 104B	History of Western Philosophy: Modern to Contemporary	3
PHIL 106	Asian Philosophy	3
PHIL 107	Reflections on Human Nature	3
PHIL 109	Issues in Social Philosophy	3
PHIL 110	Philosophy of Religion	3
PHIL 111	Philosophy In Literature and Other Fiction	3
PHIL 125	Philosophy of Women	3

PHIL 126	Introduction to Philosophy of Contemporary Gender Issues	3
PHIL 130	Philosophy of Art and Music	3
PHIL 131	Environmental Ethics	3
PHIL 205	Critical Thinking and Writing in Philosophy	3
PHIL 290	Independent Study	1-3
Total Units = 18		

Transfer Information

Common university majors related to the field of Philosophy include: Human Communication, Liberal Studies, Philosophy, Religious Studies, Pre-Law.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor’s degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student’s specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Arts in Philosophy for Transfer Degree:

The Associate in Arts in Philosophy for Transfer Degree is intended for students who plan to complete a bachelor’s degree in Philosophy or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 133) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 133 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Program Goals:

The purpose of the Associate in Arts in Philosophy for Transfer degree is to offer an organized course of study that will prepare students intending to major in Philosophy at the California State University (CSU). It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about

participating CSU campuses as well as university admission, degree and transfer requirements.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
PHIL 100	Logic and Critical Thinking	3
or		
PHIL 101	Symbolic Logic	3
PHIL 102A	Introduction to Philosophy: Reality and Knowledge	3
or		
PHIL 102B	Introduction to Philosophy: Values	3
PHIL 104A	History Of Western Philosophy: Ancient to Medieval	3
or		
PHIL 104B	History of Western Philosophy: Modern to Contemporary	3

(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university) Select two course (6 units) not selected above from the following:

PHIL 100	Logic and Critical Thinking	3
PHIL 101	Symbolic Logic	3
PHIL 102A	Introduction to Philosophy: Reality and Knowledge	3
PHIL 102B	Introduction to Philosophy: Values	3
PHIL 104A	History Of Western Philosophy: Ancient to Medieval	3
PHIL 104B	History of Western Philosophy: Modern to Contemporary	3
PHIL 205	Critical Thinking and Writing in Philosophy	3

Select one course (3 units) from the following:

PHIL 105	Contemporary Philosophy	3
PHIL 106	Asian Philosophy	3
PHIL 107	Reflections on Human Nature	3
PHIL 108	Perspectives on Human Nature and Society	3
PHIL 111	Philosophy In Literature and Other Fiction	3
PHIL 125	Philosophy of Women	3
PHIL 126	Introduction to Philosophy of Contemporary Gender Issues	3
PHIL 130	Philosophy of Art and Music	3
PHIL 131	Environmental Ethics	3

Total Units = 18

Photography

Award Type	Units
Certificate of Performance:	
Black and White Photography	13
Commercial Photography	12
Digital Photography	11
Freelance Photography	11
Certificate of Achievement:	
Freelance Photography	23
Photography	41
Associate of Arts Degree:	
Photography	41*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Photography major at San Diego City College is one of six programs in the Visual and Performing Arts department. The program provides students with strong foundational coursework, emphasizing photographic concepts, and camera handling techniques needed to enter the field. The program offers a wide range of theory, technique, and skills course work from beginning through advanced levels. Students benefit from instructors who are working professionals in the field and hands-on experience in studio practices and current industry software to create projects for the real world. The program is structured to emphasize the development of creative expression, visual awareness, and technical skills and culminates in a professional portfolio that could be used to obtain employment. The photography program is designed for students interested in entering the photography field and for students pursuing entry-level job opportunities related to photography. Additionally, students following the associate degree path are provided the essential studies and skills needed to transfer to a private or public four-year program.

Program Learning Outcomes

Upon successful completion students will be able to:

- Demonstrate competent use of reciprocal exposures utilizing shutter speeds and apertures.
- Utilize compositional elements in the creation of original photographs in various formats.

- Develop black and white film and make gelatin silver prints in a traditional darkroom.
- Utilize Adobe Lightroom and Photoshop in digital color correction and image manipulation.
- Demonstrate an understanding of the history of photography and the role of photographs in today's society.
- Illustrate abilities in various professional presentation techniques utilizing archival mounting and matting materials.
- Apply theories and principles of photographic light and lighting control for both film and digital capture.
- Create a marketing plan and business materials such as letterhead and business cards.
- Produce professional quality, colorcorrected photographs utilizing archival pigment and chromogenic materials.
- Produce professional portfolios suitable for sharing with potential clients or gradschool entrance.

Career Options

Although not a comprehensive list, some of the common career options in photography include: advertising photography, commercial photography, fashion photography, portrait photography, wedding photography, event photography, industrial photography, small product and food photography, photo retouching, photographic artist, photographic printer, photography instructor, photo laboratory technician, stock photographer, and sports and photo journalism.

Academic Programs

The associate degree in Photography requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog.

The associate degree requires a minimum of 60 units.

Faculty	Office	Telephone
Caitlin Fares	V-414C	619-388-3368

Certificate of Performance: Black and White Photography*

The Black and White Photography Certificate of Performance prepares students for entry-level employment or self-employment as a fine art photographer or photographer's assistant. Emphasis is placed on grounding students in the fundamentals of traditional analog black and white photography, including camera handling and composition, darkroom film and print processing techniques, archival print finishing, and aesthetic and conceptual thinking, culminating in a polished fine art black and white portfolio that can be used to obtain employment as a fine art photography assistant, and/or freelance fine art photographer. Students develop a comprehensive portfolio to showcase the technical and creative aspects of their work.

Career Options

Students who complete the Black and White Photography Certificate of Performance are prepared for entry-level employment as fine art photography assistants and/or freelance fine art photographers.

Courses Required for the Major:		Units
PHOT 100	Introduction to Black & White Photography	3
PHOT 102A	Directed Darkroom Studies I	1
PHOT 135	Intermediate Black & White Photography	3
PHOT 235	Advanced Black and White Photography	3
PHOT 259A	Photographic Portfolio I	3
Total Units = 13		

Note: Faculty recommend students complete classes in the order presented.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Commercial Photography*

The Commercial Photography Certificate of Performance prepares students for entry-level employment and/or self-employment in commercial photography. Emphasis is placed on grounding

students in the fundamentals of digital photography, retouching, studio lighting techniques, and portraiture, culminating in a polished commercial portfolio that can be used to obtain employment as a commercial photography assistant, and/or freelance commercial photographer.

Courses Required for the Major:		Units
PHOT 143	Introduction to Digital Photography	3
PHOT 201A	Photographic Lighting Techniques I	3
PHOT 220	Portraiture	3
PHOT 259A	Photographic Portfolio I	3
Total Units = 12		

Note: Faculty recommend students complete classes in the order presented.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Digital Photography*

The Digital Photography Certificate of Performance prepares students for entry-level employment and/or self-employment in commercial photography. Emphasis is placed on the fundamentals of digital photography, including capture, image manipulation, retouching, and color management. Students develop a comprehensive portfolio to showcase the technical and creative aspects of their work.

Career Options

Students who complete the Digital Photography Certificate of Performance are prepared for entry-level employment as commercial photography assistants, freelance commercial photographers, or digital photographic retouchers.

Courses Required for the Major:		Units
PHOT 143	Introduction to Digital Photography	3
PHOT 103	Digital Directed Photo Lab Studies	1
PHOT 180	Photo Editing: Lightroom	3
PHOT 243	Advanced Digital Photography	3
PHOT 224	Color Management for Digital Photography	1
Total Units = 11		

Note: Faculty recommend students complete classes in the order presented.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Freelance Photography*

The Freelance Photography Certificate of Performance prepares students for entry-level employment and/or self-employment in commercial photography. Emphasis is placed on the fundamentals of digital photography, photography business best practices, image manipulation and retouching, and the award culminates in the development of a comprehensive online portfolio to showcase the technical and creative aspects of the student's work.

Courses Required for the Major:		Units
PHOT 125	Photo Business Operations	2
PHOT 143	Introduction to Digital Photography	3
PHOT 180	Photo Editing: Lightroom	3
PHOT 165	Online Portfolio: Websites for Photographers	3
Total Units = 11		

Note: Faculty recommend PHOT 143 be taken in the first semester.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Freelance Photography

The Certificate of Achievement in Freelance Photography provides students with strong foundational coursework, emphasizing photographic concepts and camera handling techniques needed to enter the field. Students benefit from instructors who are working professionals in the field. Students receive hands-on experience in studio practices and current industry software to create projects for the real world. The award culminates in a professional portfolio that could be used to obtain employment. The award is primarily designed for students interested in

entering the photography field and for students pursuing entry-level job opportunities related to photography.

With an emphasis on process, conceptual strategy, and professional practices, students are given broad opportunities to develop a unique voice, vision, and viewpoint. Working with photography and illustration, students create images to illustrate a client's needs. Using both print and digital formats they produce projects that demonstrate an understanding of visual communication. This diverse body of work is refined into a strategic professional portfolio aimed at accomplishing each student's educational and employment goals.

Courses required for the major:		Units
PHOT 125	Photo Business Operations	2
PHOT 143	Introduction to Digital Photography	3
PHOT 150	History of Photography	3
PHOT 165	Online Portfolio: Websites for Photographers	3
PHOT 180	Photo Editing: Lightroom	3
PHOT 181	Photo Editing: Photoshop	3
PHOT 201A	Photographic Lighting Techniques I	3
PHOT 259A	Photographic Portfolio I	3
Total Units = 23		

Note: The Photography Department requires students to complete all requirements for the degree within five years.

Certificate of Achievement: Photography

The Certificate of Achievement in Photography provides students with strong foundational coursework, emphasizing photographic concepts and camera handling techniques needed to enter the field. Students benefit from instructors who are working professionals in the field. Students receive hands-on experience in studio practices and current industry software to create projects for the real world. The award culminates in a professional portfolio that could be used to obtain employment. The award is primarily designed for students interested in entering the photography field and for students pursuing entry-level job opportunities related to photography.

The award offers a wide range of theory, technique, and skills coursework from beginning through advanced levels that is structured to emphasize the development of creative expression, visual awareness, and technical skills required to enter the

photography field. With an emphasis on process, conceptual strategy, and professional practices, students are given broad opportunities to develop a unique voice, vision, and viewpoint. Working with photography and illustration, students create images to illustrate a client's needs. Using both print and digital formats they produce projects that demonstrate an understanding of visual communication. This diverse body of work is refined into a strategic professional portfolio aimed at accomplishing each student's educational and employment goals.

Courses Required for the Major:		Units
PHOT 100	Introduction to Black & White Photography	3
PHOT 109	Photographic Composition and Design	3
PHOT 125	Photo Business Operations	2
PHOT 143	Introduction to Digital Photography	3
PHOT 150	History of Photography	3
PHOT 180	Photo Editing: Lightroom	3
PHOT 181	Photo Editing: Photoshop	3
PHOT 201A	Photographic Lighting Techniques I	3
PHOT 259A	Photographic Portfolio I	3

Complete six (6) units from the following:

PHOT 201B	Photographic Lighting Techniques II	3
PHOT 220	Portraiture	3
PHOT 230	Advertising Photography	3
PHOT 250	Fashion Photography	3
PHOT 257	Wedding and Event Photography	2

Complete nine (9) units from the following:

PHOT 135	Intermediate Black & White Photography	3
PHOT 165	Online Portfolio: Websites for Photographers	3
PHOT 205	Travel Photography	3
PHOT 215	Photo Journalism and Documentary Photography	3
PHOT 235	Advanced Black and White Photography	3
PHOT 243	Advanced Digital Photography	3
PHOT 245	Landscape and Nature Photography	3

Total Units = 41

Note: The Photography Department requires students to complete all requirements for the degree within five years.

Associate of Arts Degree: Photography

The Associate of Arts in Photography provides students with strong foundational coursework, emphasizing photographic concepts and camera handling techniques needed to enter the field. Students benefit from instructors who are working professionals in the field. Students receive hands-on experience in studio practices and current industry software to create projects for the real world. The award culminates in a professional portfolio that could be used to obtain employment. The award is primarily designed for students interested in entering the photography field and for students pursuing entry-level job opportunities related to photography.

The award offers a wide range of theory, technique, and skills coursework from beginning through advanced levels that is structured to emphasize the development of creative expression, visual awareness, and technical skills required to enter the photography field or to prepare for transfer to four-year and private institutions. With an emphasis on process, conceptual strategy, and professional practices, students are given broad opportunities to develop a unique voice, vision, and viewpoint. Working with photography and illustration, students create images to illustrate a client's needs. Using both print and digital formats they produce projects that demonstrate an understanding of visual communication. This diverse body of work is refined into a strategic professional portfolio aimed at accomplishing each student's educational and employment goals.

Note: The Photography Department requires students to complete all requirements for the degree within five years.

Courses Required for the Major:		Units
PHOT 100	Introduction to Black & White Photography	3
PHOT 109	Photographic Composition and Design	3
PHOT 125	Photo Business Operations	2
PHOT 143	Introduction to Digital Photography	3
PHOT 150	History of Photography	3
PHOT 180	Photo Editing: Lightroom	3
PHOT 181	Photo Editing: Photoshop	3
PHOT 201A	Photographic Lighting Techniques I	3

PHOT 259A Photographic Portfolio I 3

Complete six (6) units from the following:

PHOT 201B Photographic Lighting Techniques II 3

PHOT 220 Portraiture 3

PHOT 230 Advertising Photography 3

PHOT 250 Fashion Photography 3

PHOT 257 Wedding and Event Photography 2

Complete nine (9) units from the following:

PHOT 135 Intermediate Black & White
Photography 3

PHOT 165 Online Portfolio: Websites for
Photographers 3

PHOT 205 Travel Photography 3

PHOT 215 Photo Journalism and Documentary
Photography 3

PHOT 235 Advanced Black and White
Photography 3

PHOT 243 Advanced Digital Photography 3

PHOT 245 Landscape and Nature Photography 3

Total Units = 41

Transfer Information

Common university majors related to the field of Photography include: Art, Art and Design, Art Photography, Communication, Film and Electronic Arts, Photography, Visual and Public Arts.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Physics

Award Type	Units
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Associate of Science Degree:

Physics	38*
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* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Associate in Science for Transfer Degree:

Physics	28
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Description

Physics is the study of the fundamental properties of matter, energy, and their interactions. The goal of physics is to understand the physical laws governing the universe.

The Physics program is designed to prepare students with basic concepts in physics which provide the foundation for upper division study in a baccalaureate institution and also satisfy general education requirements.

Career Options

Most careers in physics require education beyond the associate degree and many require a graduate degree. A brief list of career options in physics includes: astronomer, biophysicist, environmentalist, geophysicist, physicist and physical science instructor.

Program Learning Outcomes

Upon successful completion students will be able to:

- Demonstrate an understanding and appreciation of the scientific method.
- Communicate an understanding of the connections between science and other human activities.
- Examine the universe in a variety of courses.
- Utilize critical thinking skills in a variety of scientific applications.

Faculty	Office	Telephone
Lorenza Levy	S-211F	619-388-3713
Gerardo Scappaticci	S-211E	619-388-3356
Lisa Will	S-211C	619-388-3364

Academic Programs

The associate degrees in Physics, require completion of the courses listed for each degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Transfer Information

Common university majors related to the field of Physics include: Astronomy, Engineering, Chemical Physics, Chemistry, Earth Studies and Sciences, Geology, Physical Sciences, and Physics

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate of Science Degree: Physics

The Associate of Science Degree in Physics certifies that the student has emphasized the theory and practice of physics and has met the preparation for the major in physics and related fields, such as astronomy, geophysics, and engineering.

Courses Required for the Major:	Units
CHEM 200 General Chemistry I – Lecture	3
CHEM 200L General Chemistry I – Laboratory	2
CHEM 201 General Chemistry II – Lecture	3
CHEM 201L General Chemistry II – Laboratory	2
MATH 150 Calculus with Analytic Geometry I	5
MATH 151 Calculus with Analytic Geometry II	4
MATH 252 Calculus with Analytic Geometry III	4
PHYS 195 Mechanics	5
PHYS 196 Electricity and Magnetism	5
PHYS 197 Waves, Optics and Modern Physics	5

Total Units = 38

Associate in Science in Physics for Transfer Degree:

Program Description:

The Associate in Science in Physics for Transfer Degree is intended for students who plan to complete a bachelor's degree in Physics or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements. It is recommended to take additional courses prior to transfer that may be articulated prep for the major to the transfer CSU.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

All courses in the major must be completed with a grade of "C" or "P" or better.

Note: It is recommended that students intending to transfer to San Diego State University (SDSU) BS in Physics, General Physics or BS in Physics, Modern Optics should complete the courses marked with a "#". Students intending to transfer into this major at other CSUs should consult a counselor and visit www.assist.org for guidance on appropriate coursework.

*Course also fulfills general education requirements for the CSU GE or IGETC pattern.

This course fulfills SDSU's lower division preparation for the major in BS in Physics, General Physics or the BS in Physics, Modern Optics, under the TMC.

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.

- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

Electives as needed to meet maximum of 60 CSU-transferable units required for the degree.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
PHYS 195	Mechanics *#	5
PHYS 196	Electricity and Magnetism *#	5
PHYS 197	Waves, Optics and Modern Physics *#	5
MATH 150	Calculus with Analytic Geometry I *#	5
MATH 151	Calculus with Analytic Geometry II *#	4
MATH 252	Calculus with Analytic Geometry III *#	4
Total Units = 28		

Political Science

Award Type	Units
Certificate of Achievement	
Public Administration	23
Associate of Arts Degree:	
Political Science	18*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
Law, Public Policy, and Society	30
Political Science	18

Description

The primary objectives of the Political Science program are to meet general education requirements for American Institutions and Social Sciences for the associate degree and to complete general education requirements for baccalaureate degrees. Political science is the study of human behavior as it relates to political situations. It involves the examination of institutions, processes, people, ideas and policies. The study of political science develops cultural literacy, critical thinking and other useful skills.

Program Emphasis

San Diego City College offers four courses in Political Science: Political Science 101, 102, 103 and 140. Completion of Political Science 101, 102 and 103 provides the student with lower division preparation for a baccalaureate degree in Political Science at San Diego State University.

Career Options

Most careers in political science require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list but some of the most common career options with political science preparation include: public administrator, budget analyst, city planner, diplomatic corps member, elected official, legislative aide, journalist, lawyer, lobbyist, political scientist, public opinion surveyor, teacher and writer.

Program Learning Outcomes

Upon successful completion the student will be able to:

- Critically analyze the study of human behavior as it relates to political situations in college-level essays, written assignments, and research papers.
- Identify and describe main concepts in the study of political science including, but not limited to, political power, sovereignty, nation-state; legitimacy; authority, political culture, political socialization, political ideology; social contract; separation of powers; federalism; unitary system; rule of law and globalization.

Faculty	Office	Telephone
Nicholas Boushee	MS-438	619-388-3696

Academic Programs

The associate degree in Political Science requires completion of courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Certificate of Achievement: Public Administration

The Certificate of Achievement in Public Administration is designed to provide students with a broad understanding of the Public Administration field and to prepare them for transfer to baccalaureate-level Public Administration programs.

Emphasis is placed on administrative theory and practice at the local, state, and national levels, including governmental institutions and structures, public decision-making processes, organizational behavior, the effectiveness of criminal justice policies, urban policy, and land use considerations. Coursework encourages students to conduct research and critically analyze data while developing real-world management and leadership skills.

Students interested in transferring to San Diego State University in Public Administration may combine this Certificate with the Associate of Arts for Transfer in Law, Public Policy, and Society to facilitate preparation for the major and to enhance practical skills relevant to working in the public sector.

Career Options

Most careers in public administration require education beyond the associate degree, most require a baccalaureate degree, and some require a graduate degree. Common career options include: public administrator, budget analyst, city planner, public policy analyst, diplomatic corps member, elected official, legislative aide, journalist, lawyer, lobbyist, grant writer, public opinion surveyor, teacher, and writer.

Courses Required for the Major:		Units
PADM 200	Introduction to Public Administration	3
POLI 102	Introduction to American Government	3
POLI 201	Elementary Statistics for Political Science	3
or		
MATH 119	Elementary Statistics	3
ACCT 116A	Financial Accounting	4
ECON 120	Principles of Macroeconomics	3
ECON 121	Principles of Microeconomics	3
CISC 181	Principles of Information Systems	4
Total Units =		23

Associate of Arts Degree: Political Science

Courses Required for the Major:		Units
POLI 101	Introduction to Political Science	3
POLI 102	Introduction to American Government	3
POLI 103	Comparative Politics	3
POLI 121	American Political Development	3
POLI 140	Contemporary International Politics	3
POLI 201	Elementary Statistics for Political Science	3
or		
MATH 119	Elementary Statistics	3
Total Units =		18

Associate in Arts in Law, Public Policy, and Society for Transfer Degree:

Program Description:

The Associate in Arts in Law, Public Policy, and Society for Transfer Degree is intended for students who plan to complete a bachelor's degree in Law, Public Policy, and Society or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.
- It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some

CSU campuses and majors may require a higher GPA. Please see a counselor for more information.

- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information). Electives as needed to meet maximum of 60 CSU-transferable units required for the degree.

Courses Required for the Major:	Units
PADM 200 Introduction to Public Administration	3
ADJU 101 Introduction to Administration of Justice	3
or	
ADJU 102 Criminal Law I	3
or	
BUSE 140 Business Law and the Legal Environment	3
ENGL 101 Reading and Composition	3
COMS 103 Oral Communication	3
COMS 160 Argumentation and Critical Thinking	3
or	
ENGL 205 Critical Thinking and Intermediate Composition	3
ECON 120 Principles of Macroeconomics	3
or	
ECON 121 Principles of Microeconomics	3
HIST 109 History of the United States I	3
or	
HIST 110 History of the United States II	3
PHIL 102B Introduction to Philosophy: Values	3
POLI 102 Introduction to American Government	3
POLI 201 Elementary Statistics for Political Science	3
or	
MATH 119 Elementary Statistics	3
Total Units = 30	

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may

be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Arts in Political Science for Transfer Degree:

Program Description:

The Associate in Arts in Political Science for Transfer Degree is intended for students who plan to complete a bachelor's degree in Political Science or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

Note: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a

minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.

- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
POLI 101	Introduction to Political Science	3
POLI 102	Introduction to American Government	3
POLI 103	Comparative Politics	3
or		
POLI 140	Contemporary International Politics	3
POLI 201	Elementary Statistics for Political Science	3
or		
MATH 119	Elementary Statistics	3

Select two courses not selected above from the following (6 units):

POLI 103	Comparative Politics	3
POLI 121	American Political Development	3
POLI 124	Power and Justice: An Introduction to Political Theory	3
POLI 140	Contemporary International Politics	3
PADM 200	Introduction to Public Administration	3

Total Units = 18

Psychology

Award Type	Units
Certificate of Achievement:	
Mental Health Work	19
Associate of Arts Degree:	
Psychology	18*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
Psychology	19–20

Description

Psychology is a behavioral science that emphasizes the understanding of behavior (feelings, actions, and thoughts) of individuals. It should be noted that psychology typically focuses on the study of humans though psychologists have interests in other species. Psychology as a science is most closely related to the biological sciences, although its application often involves personal and/or cultural philosophical beliefs or values. Students who major in psychology are expected to be able to think critically and scientifically about behavior, and be able to apply the principles of psychology to the understanding of behavior.

The psychology program has two primary goals. The first is to provide the basic science courses that are foundations for further understanding of other courses in psychology and related fields as well as preparation for transfer to other institutions for further study. The second goal is to provide courses that may include additional information regarding psychology that are of general interest to community college students or are applications of psychological principles.

Career Options

Many career options directly related to psychology require graduate level degrees. However, there are several applied and paraprofessional occupations that may not require education beyond the associate degree. The following is a sample of the many career options available with preparation in this major beyond the associate degree: advertising researcher, clinical psychologist, community college instructor, school counselor, counseling psychologist, substance abuse counselor, employment counselor,

engineering psychologist, industrial psychologist, manager, marriage and family counselor, mental health worker, organizational psychologist, personnel analyst, probation officer, psychometrist, and research psychologist.

Program Learning Outcomes

Students who complete the program will be able to:

- Describe the field of psychology including its philosophical, theoretical, and scientific roots and the multitude of professional options.
- Explain how the scientific method lends itself to the goals of psychological research and statistical analysis of research data.
- Distinguish between various components of the nervous system, and explain how they work together to influence behavior and mental health processes.
- Analyze the influence of biological and environmental factors in the development of psychological processes such as sensation & perception, learning, memory, intelligence, personality, emotion, motivation, sexuality, mental health and social behavior.

Faculty	Office	Telephone
Kirsten Christensen	MS-540H	619-388-3238
Kristen Cole	MS-540J	619-388-3651
Marie St. George	MS-533	619-388-3371
Kim Sweeney	MS-532	619-388-3691

Academic Programs

The associate degree in Behavioral Sciences with an emphasis in Psychology requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Certificate of Achievement: Mental Health Work

This certificate program is designed to prepare entry-level mental health workers for the workforce and to serve as a stepping stone toward higher academic degrees in the field of mental health. Potential entry-level mental health work positions include: mental health technician, social services assistant, residential home counselor, child care

worker assistant, counselor aid, gerontology aid, research assistant, youth counselor, foster care worker, behavior analyst, case management aid, family services aid, patient care specialist and patient advocate assistant. Employment options for students who complete the Certificate of Achievement in Mental Health Work include Mental Health Worker/Counselor, Behavioral Health Technician/Educator, Peer Mentor, Residential Counselor, Outreach Worker and Patient Care Specialist.

Award Note: Students must complete all required courses within ten years in order to receive the Mental Health Work Certificate of Achievement.

Courses Required for the Major:		Units
PSYC 101	General Psychology	3
PSYC 130	Introduction to Community Psychology	3
PSYC 161	Introduction to Counseling	3
PSYC 245	Abnormal Psychology	3
HUMS 95	Public Assistance and Benefits Program 1	
HUMS 105	Family Strengthening Models in Behavioral Health	3
PSYC 276	Field Work in Psychological Services	3
		Total Units = 19

Note: The Psychology Department recommends that students take PSYC 276 Field Work in Psychological Services in their final semester.

Associate of Arts Degree: Psychology

The psychology program is suited to the needs of both the two-year student and the transfer student who plan to major or minor in psychology or related fields. It provides students with an understanding of human behaviors and mental processes, and provides critical thinking and analytical skills that are applicable to many fields.

Courses Required for the Major:		Units
PSYC 101	General Psychology	3
PSYC 255	Introduction to Psychological Research	3
PSYC 258	Behavioral Science Statistics	3
PSYC 260	Introduction to Physiological Psychology	3

Select two courses from the following:

PSYC 137	Human Sexual Behavior	3
PSYC 166	Introduction to Social Psychology	3
PSYC 211	Learning	3
PSYC 230	Psychology of Lifespan Development	3

PSYC 245	Abnormal Psychology	3
PSYC 283	Introduction to Cognitive Psychology	3
Total Units = 18		

Transfer Information

Common university majors related to the field of Psychology include: Behavioral Science, Biopsychology, Clinical Psychology, Cognitive Psychology, Cognitive Science, Counseling, Developmental Psychology, Psychobiology, Psychology, Social Psychology.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Arts in Psychology for Transfer Degree:

The Associate in Arts in Psychology for Transfer Degree is intended for students who plan to complete a bachelor's degree in psychology or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree, and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award notes:

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.
- The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.
- It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Courses Required for the Major:		Units
PSYC 101	General Psychology	3
PSYC 255	Introduction to Psychological Research	3
PSYC 258	Behavioral Science Statistics	3
PSYC 259	Behavioral Science Statistics Laboratory	1
PSYC 260	Introduction to Physiological Psychology	3

Complete six to seven units from the following:

BIOL 107	General Biology – Lecture and Laboratory	4
or		
BIOL 210A	Introduction to the Biological Sciences I	4

PSYC 230 Psychology of Lifespan Development 3

PSYC 283 Introduction to Cognitive Psychology 3

Total Units = 19–20

Note: The Psychology Department recommends that students planning to transfer to SDSU complete PSYC 201 in addition to the above.

Real Estate

Award Type	Units
Certificate of Performance: Real Estate Salesperson	9–10
Certificate of Achievement: Real Estate Broker	24–25
Associate of Science: Real Estate	50–51*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description:

The real estate program is designed for those interested in careers in real estate or for professionals wishing to upgrade their skills. The program offers certificates for Real Estate Salesperson, Real Estate Broker, and Real Estate Appraisal, as well as an Associate of Science Degree in Real Estate. The Certificate of Completion: Real Estate Salesperson provides students with the coursework required by the California Department of Real Estate (DRE) for qualification to take the real estate salesperson license examination. Completion of the Certificate of Achievement: Real Estate Broker and the Real Estate Associate of Science Degree provide coursework that meets the DRE's educational requirements for real estate broker licensure in California. Completion of the courses for the Certificate of Completion: Real Estate Appraisal fulfills the educational requirements of the Office of Real Estate Appraisers (OREA) for appraisal licensure.

See individual certificates and degrees for additional information.

Goals:

Give students greater choice of electives in the real estate business.

Emphasis:

Emphasis is placed on preparing students to become real estate brokers in California.

Career Options:

Real estate sales and appraisal; Real estate broker.

Certificate of Performance: Real Estate Salesperson*

This certificate is designed for students interested in exploring a career in real estate sales. Real Estate 101, Real Estate 120, and one additional course from the elective list are required to take the Real Estate Salesperson's License Examination. For questions about DRE licensure requirements, contact the DRE at 619-525-4192 or www.dre.ca.gov.

Program Learning Outcomes

Students who complete the certificate will be able to:

- Develop and apply appropriate communication skills across various business settings.
- Analyze business scenarios to formulate and implement plans of action.
- Leverage technology to manage and use information for decision making.

Courses:	Units
REAL 101 Real Estate Principles	3
REAL 120 Real Estate Practice	3

Select 3 to 4 units from the following:

ACCT 102 Basic Accounting	3
ACCT 116A Financial Accounting	4
BUSE 140 Business Law & the Legal Environment	3
REAL 105 Legal Aspects of Real Estate	3
REAL 110 Principles of Real Estate Appraisal I	3
REAL 115 Real Estate Finance	3
REAL 125 Real Estate Economics	3
REAL 130 Real Property Management	3
REAL 151 Real Estate Computer Applications	3

Total Units = 9–10

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Achievement: Real Estate Broker

The Real Estate Broker Certificate of Achievement meets the educational requirements for the Department of Real Estate (DRE) broker's license in California. An applicant for the broker licensure examination must have completed eight college level courses in addition to fulfilling the experience requirement of two years full-time real estate sales work in the last five years or the equivalent outlined in the California DRE "Instructions to License Applicants." For questions about DRE licensure requirements contact the DRE at 619-525-4192 or at www.dre.ca.gov.

Program Learning Outcomes

Students who complete the certificate will be able to:

- Develop and apply appropriate communication skills across various business settings.
- Analyze business scenarios to formulate and implement plans of action.
- Leverage technology to manage and use information for decision making.

Courses Required for the Major:		Units
REAL 101	Real Estate Principles	3
REAL 105	Legal Aspects of Real Estate	3
REAL 110	Principles of Real Estate Appraisal I	3
REAL 115	Real Estate Finance	3
REAL 120	Real Estate Practice	3
REAL 125	Real Estate Economics	3

6 to 7 units selected from the following:

ACCT 102	Basic Accounting	3
ACCT 116A	Financial Accounting	4
BUSE 140	Business Law and the Legal Environment	3
REAL 130	Real Property Management	3
REAL 151	Real Estate Computer Applications	3

Total Units = 24–25

Associate of Science Degree: Real Estate

Courses Required for the Major		Units
Core		
BUSE 119	Business Communications	3
ENGL 101	Reading and Composition	3
BUSE 140	Business Law & the Legal Environment	3
CISC 181	Principles of Information Systems	4

ECON 120	Principles of Macroeconomics	3
PHIL 102B	Introduction to Philosophy: Values	3

Additional Real Estate Courses Required:

REAL 101	Real Estate Principles	3
REAL 105	Legal Aspects of Real Estate	3
REAL 110	Principles of Real Estate Appraisal I	3
REAL 115	Real Estate Finance	3
REAL 120	Real Estate Practice	3
REAL 125	Real Estate Economics	3

6 to 7 units selected from the following:

ACCT 102	Basic Accounting	3
ACCT 116A	Financial Accounting	4
ESCR 101	Escrow Procedures – Beginning	3
REAL 130	Real Property Management	3
REAL 151	Real Estate Computer Applications	3
REAL 166	Common Interest Development	3

Additional courses required:

BIOL 101	Issues in Environmental Science & Sustainability	4
COMS 180	Intercultural Communication	3

Total Units = 50–51

Recommended electives: Business 101.

Social Work

Award Type	Units
Associate of Arts Degree: Social Work	28*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

Social Work is an applied behavioral science that emphasizes the application of behavioral science principles in a variety of cultural contexts. Social Work students are expected to think critically and scientifically about behavior, to apply the principles of the behavioral sciences, and to understand the role of values in diverse cultural settings. As a profession, social work focuses on methods for helping people from many different social groups to improve the quality of their lives.

Program Goals

The Social Work program has two primary goals. The first is to provide students with the basic science and social work courses that prepare them for entry-level

work in the field and/or transfer to four-year colleges, universities or other institutions. The second goal is to provide students with general knowledge related to the behavioral sciences that complements their interests in the field of Social Work.

Career Options

Most career options directly related to professional (licensed) social work require graduate level degrees. However, there are applied and paraprofessional occupations that value the associate degree. Social services departments, hospitals, academic and community mental health facilities, child care programs, services for the aged, alcohol and other drug treatment programs, family services agencies, and other community organizations are all examples of settings which employ both professional and paraprofessional social service providers. Education at each academic level enhances skills, knowledge, and employability.

Faculty	Office	Telephone
Kirin Macapugay	MS-535	619-388-3562

Academic Programs

The associate degree in social work requires completion of the courses listed for the degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: Social Work

Courses Required for the Major:		Units
HUMS 110	Social Work Fields of Service	3
HUMS 120	Introduction to Social Work	3
BIOL 107	General Biology – Lecture and Laboratory	4
ECON 120	Principles of Macroeconomics	3
PSYC 101	General Psychology	3
PSYC 258	Behavioral Science Statistics or	
MATH 119	Elementary Statistics	3
SOCO 101	Principles of Sociology	3

Select two courses from the following:

PSYC 161	Introduction to Counseling	3
PSYC 230	Psychology of Lifespan Development	3
PSYC 245	Abnormal Psychology	3
SOCO 110	Contemporary Social Problems	3

Total Units = 28

Transfer Information

Common university majors related to the field of Social Work include: Counseling, Social Work.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Sociology

Award Type	Units
Associate of Arts Degree:	
Sociology	21*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
Sociology	18

Description

Sociology is a behavioral science that emphasizes relationships through formal organizations to whole societies. Sociology's subject matter ranges from the intimate family to the hostile mob, from crime to religion, from divisions of race and social class to the shared beliefs of a common culture, from the Sociology of work to the Sociology of sports. Sociologists seek to understand interaction of individuals with institutions and social organizations and the norms, values, beliefs, and traditions that make social life possible and meaningful. It stresses how behavior is influenced by societal structures and how consensus (agreement) and conflict (disagreement) among groups affects society. Sociology students are expected to be able to think critically and scientifically about human behavior, and to be able to apply the principles of sociology to an understanding of behavior.

Program Emphasis

The sociology program aims to provide basic sociology courses that are foundations for further understanding of other courses in sociology and related fields and to prepare for transfer to baccalaureate institutions for further study. The sociology program also offers courses that may provide additional information regarding sociology of interest to community college students, or that are applications of sociological principles.

Career Options

Most career options directly related to sociology require graduate level degrees. However, there are several applied and paraprofessional occupations that may not require education beyond the associate degree. The list following includes some of the many career options available with preparation in sociology beyond the associate degree: advertising researcher, community college or university professor, criminologist, manager, probation officer, and social services professional.

Program Learning Outcomes

Students who complete the program will be able to:

- Apply the sociological imagination and be able to differentiate between sociology and other social sciences.
- Analyze critical inquiry of personal experience, over-generalization, and simplistic understandings of human behavior through the application of various sociological theories.
- Propose critical questions and issues facing our society today, particularly the US role in a globalized world.
- Critically assess how the theoretical underpinnings of sociology explicitly challenge the dominant ideologies in US society and the role of sociology to produce social change.

Faculty	Office	Telephone
Marilyn Espitia	MS-531	619-388-3739
Sarah Pitcher	MS-540K	619-388-3606

Academic Programs

The associate degree with a major in Behavioral Sciences with an emphasis in Sociology requires completion of the courses listed below. Additional general education and graduation requirements for

the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: Sociology

Courses Required for the Major:		Units
SOCO 101	Principles of Sociology	3
SOCO 110	Contemporary Social Problems	3
PSYC 258	Behavioral Science Statistics	3
or		
MATH 119	Elementary Statistics	3
SOCO 201	Advanced Principles of Sociology	3
SOCO 220	Introduction to Research Methods in Sociology	3

Select two courses from the following:

SOCO 125	Sociology of the Family	3
SOCO 145	Health and Society	3
SOCO 150	Sociology of Latinos/Latinas	3
SOCO 223	Globalization and Social Change	3
GEND 101	Introduction to Gender Studies	3

Total Units = 21

Transfer Information

Common university majors related to the field of Sociology include: Behavioral Science, Community Studies, Gerontology, Law, Policy Analysis, Social Ecology, Social Science, Sociology, Social Work, Counseling.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Arts in Sociology for Transfer Degree:

Description

The Associate in Arts in Sociology for Transfer Degree is intended for students who plan to complete a bachelor's degree in Sociology or a related major in the California State University

(CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes:

General Education: In addition to the courses listed below, students must complete one of the following general education options:

The IGETC pattern (page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.

The CSU GE pattern (page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

The following is required for all AA-T or AS-T degrees:

Completion of 60 CSU-transferable semester units. No more than 60 units are required.

Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.

Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.

Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer

Curriculum pattern (IGETC; see page 126 for more information).

Program Emphasis:

The purpose of the Associate in Arts in Sociology for Transfer degree is to offer an organized course of study that will prepare students intending to major in Sociology at the California State University (CSU). It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses required for the Major:		Units
SOCO 101	Principles of Sociology	3
SOCO 110	Contemporary Social Problems	3
PSYC 258	Behavioral Science Statistics	3
SOCO 220	Introduction to Research Methods in Sociology	3
SOCO 125	Sociology of the Family or	
GEND 101	Introduction to Gender Studies or	
SOCO 201	Advanced Principles of Sociology	3

Select one course not selected above from the following (3 units):

GEND 101	Introduction to Gender Studies	3
SOCO 125	Sociology of the Family	3
SOCO 145	Health and Society	3
SOCO 150	Sociology of Latinos/Latinas	3
SOCO 201	Advanced Principles of Sociology	3
SOCO 223	Globalization and Social Change	3

Total Units = 18

Electives as needed to meet maximum of 60 units required for the degree.

Spanish

Award Type	Units
Associate of Arts Degree:	
Spanish	22–26*
* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.	
Associate in Arts for Transfer Degree:	
Spanish	23

Description

The study of languages provides communication skills, provides exposure to the richness of cultural variety, increases transfer options to universities with language requirements, opens new career opportunities, enriches global travel, and provides personal enrichment. The program is designed to prepare students for transfer to a baccalaureate institution and for proficiency in a language in a variety of settings.

Program Emphasis

The Language program provides transfer level courses in Arabic, French, German, Italian, Spanish and Russian. Students develop skills of understanding, speaking, reading and writing, culture and increase familiarity with basic features of the English language. They also have opportunities to become acquainted with the literature, culture, history and current events of other countries through films, videotapes, field trips and campus and community international events.

Career Options

Knowledge of another language is required or highly desirable for consular and junior foreign service, import, export, and international business and travel, health and missionary fields, overseas teaching, translating and interpreting, and travel and tourism industries. Learning another language is an asset in broadening communication skills and in the travel and tourism industry.

Program Learning Outcomes

Students who complete the program will be able to:

- Accurately use the language mechanics in the five spheres of Foreign Language learning.

- Apply critical thinking skills.
- Develop writing processes in Spanish.
- Demonstrate intermediate–high comprehension and language production.
- Demonstrate cultural fluency and awareness.

Faculty	Office	Telephone
Jaime Estrada-Olalde	AH-518D	619-388-3785
Philippe Patto	AH-518C	619-388-3591
Rosalinda Sandoval	AH-518B	619-388-3295

Academic Programs

The associate degree in French, German, Italian, or Spanish requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Associate of Arts Degree: Spanish

Courses Required for the Major:		Units
SPAN 101	First Course in Spanish	5
and		
SPAN 102	Second Course in Spanish	5
or		
CHIC 141A	United States History from a Chicano Perspective	3
and		
CHIC 141B	United States History from a Chicano Perspective	3
SPAN 201	Third Course in Spanish	5
or		
SPAN 215	Spanish for Spanish Speakers I	5
SPAN 202	Fourth Course in Spanish	5
or		
SPAN 216	Spanish for Spanish Speakers II	5
SPAN 210	Conversation and Composition Spanish I	3
SPAN 211	Conversation and Composition Spanish II	3
Total Units =		22–26

Associate in Arts in Spanish for Transfer Degree:

Program Description:

The Associate in Arts in Spanish for Transfer Degree is intended for students who plan to complete a

bachelor's degree in Spanish or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

Award Notes:

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education–Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Career Options:

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:		Units
SPAN 101	First Course in Spanish	5
SPAN 102	Second Course in Spanish	5
SPAN 201	Third Course in Spanish	5
SPAN 202	Fourth Course in Spanish	5

Select one of the following:

SPAN 210	Conversation and Composition Spanish I	3
SPAN 211	Conversation and Composition Spanish II	3

Total Units = 23

Transfer Information

Common university majors related to the field of Spanish include: Language Studies, Literature, Modern Languages, Spanish, Translation and Interpretation.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Sustainability

Award Type	Units
Associate of Arts Degree: Sustainability	19–21*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The Sustainability Program offers an interdisciplinary, theoretical and practical approach for students to enter into academic and/or professional fields related to Sustainability. The central focus of the degree is the interface of human and natural systems. The curriculum emphasizes the study of cultural, historical, social, economic, and political values and forces that shape resource use and constrain responses to sustainable development. Students gain skills to critically analyze current global affairs in order to offer alternative solutions to create sustainable societies.

Program Learning Outcomes

Upon completion of the Sustainability program, students are able to:

- Analyze, discuss and evaluate issues related to sustainability on all levels;
- Apply theory in academic disciplines such as sociology, philosophy, economics, and

environmental science to the field of sustainability;

- Critically think about their role in the world and their possible contributions to a sustainable global society;
- Understand the role of ethics in sustainability.

Career Options

Most career options directly related to Sustainability require a four-year degree. The Sustainability program may allow you to work in industry, consultancy, regulatory agencies, utilities, academia, local, state, or federal government, non-profits, or for a non-governmental organization depending on your interest and your desired academic and professional path.

Associate of Arts Degree: Sustainability

Courses Required for the Major:		Units
SUST 101	Introduction to Sustainability	3
BIOL 101	Issues in Environmental Science & Sustainability	4
ECON 121	Principles of Microeconomics	3
GEOG 101	Physical Geography	3

Select three to four units from the following:

AGRI 102	Sustainable Urban Agricultural Practice	3
CHEM 111	Chemistry in Society	3
and		
CHEM 111L	Chemistry in Society Laboratory	1
PEAC 101	Introduction to Peace Studies	3
PHIL 131	Environmental Ethics	3
SOCO 223	Globalization and Social Change	3

Select three to four units from the following:

BUSE 115	Statistics for Business	3
MATH 115	Gateway to Experimental Statistics	4
MATH 119	Elementary Statistics	3
PHIL 101	Symbolic Logic	3
POLI 201	Elementary Statistics for Political Science	3
PSYC 258	Behavioral Science Statistics	3

Total Units = 19–21

Transfer Information

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate

major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences. This degree may be individually tailored to each student's specific transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Theatre

Award Type	Units
Certificate of Performance:	
Special Effects (FX) Makeup	9
Theatrical Glamour for Media and Performance	9
Certificate of Achievement:	
Special Effects (FX) Makeup	16
Technical Theatre	18
Associate of Arts Degree:	
Musical Theatre	26.5*
Theatre	27*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Associate in Arts for Transfer Degree:

Theatre Arts	18
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Program Description

The Theatre program at San Diego City College provides a breadth of course work designed to meet the needs of the serious theatre student, as well as those who wish to include theatre as part of their liberal arts education. The Theatre program at San Diego City College is one of six programs in the Visual and Performing Arts Department. Students entering into the program have the ability to pursue Associate of Arts degrees offered in Theatre and Musical Theatre; a Certificate of Achievement in Technical Theatre and Special Effects (FX) Makeup; and Certificates of Performance offered in Special Effects (FX) Makeup and Theatrical Glamour for Media and Performance. Courses are offered in acting, voice, movement, stagecraft, scene painting, costuming, playwriting, and makeup. Also offered are classes that explore theatre in a traditional academic setting. Hands-on practical experience is stressed through a wide-ranging production program, and students have the opportunity to

work in all phases of production and performance. Students enjoy a unique combination of state-of-the-art facilities including two fully-equipped theatres, professional faculty and staff, and an active, respected production program which serves the campus and the community.

Program Learning Outcomes

Upon completion of the program, the student will be able to:

- Effectively practice the theatre arts through involvement in the creation and presentation of public performances in theatre.
- Develop a structural approach to interpretation of language in dramatic text.
- Explain and practice basic production processes such as acting, scenic, costume, and make-up design, and technical operation related to production.
- Identify the historical and cultural dimension of theatre, including the works of leading playwrights, actors, directors, and designers.
- Acquire inter-cultural and multi-cultural understanding, as well as perception of the universal and timeless human conflicts presented in dramatic works.
- Augment the discipline, cooperation, accountability, and perseverance necessary for positive self-identification and success in life.

Faculty	Office	Telephone
Duane Gardella	C-106A	619-388-3594
Katherine (Katie) Rodda	C-106B	619-388-3088
Kate Stone	C-106C	619-388-3617

Academic Programs

The associate degree in Theatre requires completion of the courses listed for the degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. **The associate degree requires a minimum of 60 units.**

Certificate of Performance: Special Effects (FX) Makeup*

The Certificate of Performance in Special Effects (FX) Makeup provides students with the skills and hands-on experience required for entry-level employment

in the special effects makeup industry. Emphasis is placed on the design, development, and application process for character and creature prosthetics for stage, film, and television. Students develop a portfolio of work to industry standards.

Program Goals

The goal of the Certificate of Performance in Special Effects (FX) Makeup is to provide skills and hands-on experience required to produce a portfolio of work for employment in the FX industry.

Students who successfully complete this certificate will be able to:

- Research and design creatures and characters for stage, film, and television;
- Construct a variety of prosthetics, including facial features, wounds, and injuries; and
- Apply prosthetics, out-of-the-kit wounds, and makeup/painting.

Career Options

Upon successful completion of the Certificate of Performance in Special Effects (FX) Makeup, students will be prepared for entry-level positions, such as FX Lab Technician, FX Lab Sculptor, FX Lab Creative Designer, FX Lab Mold Maker, On-site FX Makeup Artist, Freelance FX Makeup Artist.

Courses:	Units
DRAM 124 Makeup for the Stage	3
DRAM 144A Beginning Special Effects Makeup for Stage and Film	3
DRAM 146A Beginning Special Effects Makeup Practicum: Character	3
Total Units = 9	

Note: The department suggests that students take DRAM 124 prior to enrolling in DRAM 144A and DRAM 146A.

Recommended Electives: Dramatic Arts 144B, 146B.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Note: This program is not eligible for federal financial aid in accordance with Federal regulations.

Certificate of Performance: Theatrical Glamour for Media and Performance*

The Certificate of Performance in Theatrical Glamour Makeup provides students with the skills and hands-on experience required for entry-level employment in theatrical glamour theme/collection development, and technical makeup application for stage, film, and television. Students develop a portfolio of work to industry standards.

Program Goals

The goal of the Certificate of Performance in Theatrical Glamour Makeup is to provide skills and hands-on experience required to produce a portfolio of work for employment in the industry.

Students who successfully complete this certificate will be able to:

- Research and design makeup for a theme on the runway, the stage, film, and television;
- Execute a variety of 2-D and 3-D glamour makeup looks, including; air brushing techniques, transfers, masks, head pieces and costumes.

Career Options

Upon successful completion of the Certificate of Performance in Theatrical Glamour Makeup, students will be prepared for entry-level positions, such as makeup artist, makeup assistant, theatre designer, stylist, body art technician, wig maker, and production crew.

Courses:	Units
DRAM 124 Makeup for the Stage	3
DRAM 145A Introduction to Theatrical Glamour: Promotional Events	3
DRAM 146C Introduction to Theatrical Glamour Practicum: Promotional Events	3
Total Units = 9	

Note: The department suggests that students take DRAM 124 prior to enrolling in DRAM 144A and DRAM 146A.

*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

Certificate of Achievement: Technical Theatre

The Certificate of Achievement in Technical Theatre provides additional preparation for theatre majors to find entry-level work in all aspects of technical theatre. The award provides students with additional support when they transfer to four-year institutions where technical theatre is emphasized.

Note:

Students who successfully complete this award will be able to:

- Design and implement stage scenery, lighting, and sound equipment;
- Organize the technical operations of stage productions;
- Create original makeup designs and apply makeup for original characters; and
- Design and paint small- and large-scale scenery for the stage.

Career Options

Some careers in technical theatre require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list, but the most common career option with a certificate in technical theatre is entry-level technical work in a theatre company, in local theatres, or within the commercial production industry.

Courses required for the major:	Units
DRAM 123 Beginning Stagecraft	3
DRAM 124 Makeup for the Stage	3
DRAM 126 Advanced Stagecraft	3
DRAM 143 Beginning Costuming	3
DRAM 129A Beginning Scene Painting	3
DRAM 129B Intermediate Scene Painting	3
or	
DRAM 153 Intermediate Costuming	3
Total Units = 18	

Certificate of Achievement: Special Effects (FX) Makeup

The Certificate of Achievement in Special Effects (FX) Makeup provides students with the skills and hands-on experience required for entry-level employment in the special effects makeup industry. Emphasis is placed on the design, development, and application process for character and creature prosthetics for stage, film, and television. Students develop a portfolio of work to industry standards.

The program provides students with the skills in creating a professional portfolio that can be used to obtain employment in the FX industry.

Program Goals:

Students who successfully complete this award will be able to:

- Design and implement stage scenery, lighting, and sound equipment;
- Organize the technical operations of stage productions;
- Create original makeup designs and apply makeup for original characters; and
- Design and paint small- and large-scale scenery for the stage.

Career Options

Upon successful completion of this award students will be prepared for entry-level positions, such as FX Lab Technician, FX Lab Sculptor, FX Lab Creative Designer, FX Lab Mold Maker, On-site FX Makeup Artist and Freelance FX Makeup Artist.

Note: Students who successfully complete this award will be able to:

- Research and design creatures and characters for stage, film, and television;
- Construct a variety of prosthetics, including facial features, wounds, and injuries; and
- Apply prosthetics, out-of-the-kit wounds, and makeup/painting.

Courses required for the major:	Units
DRAM 124 Makeup for the Stage	3
Select 13 units from the following:	
DRAM 144A Beginning Special Effects Makeup for Stage and Film	3
DRAM 144B Intermediate Special Effects Makeup for Stage and Film	3
DRAM 145A Introduction to Theatrical Glamour: Promotional Events	3
DRAM 146A Beginning Special Effects Makeup Practicum: Character	3
DRAM 146B Intermediate FX Makeup Practicum: Creature	3
DRAM 146C Introduction to Theatrical Glamour Practicum: Promotional Events	3
DRAM 270 Theatre Arts Internship / Work Experience	1–4
Total Units = 16	

Associate of Arts Degree: Musical Theatre

Musical Theatre is the most diversified area of the dramatic arts, our focus is to integrate three art forms—acting, singing, and dancing—into a single mode of expression. Our students explore the unique relationship that exists among these three disciplines in order to find employment as performers in a challenging job market or to prepare for transfer to similar programs at four-year institutions. Graduates are qualified to transfer with a major in Musical Theatre to UCs and CSUs as well as private colleges and universities.

The Associate of Arts in Musical Theatre degree is designed to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each transfer institution, courses used to complete this degree should be selected with the assistance of a San Diego City College counselor.

Career Options

Some careers in theatre require education beyond the associate degree and some require a graduate degree. This is not a comprehensive list, but some of the most common career options with a degree in Musical Theatre include: musical theatre stage performer, actor/performer, singer, dancer, stage movement instructor, cruise ship performer, high school and elementary movement instructor, and dance instructor.

Courses Required for the Major:	Units
DRAM 105 Introduction to Dramatic Arts	3
DRAM 123 Beginning Stagecraft	3
or	
DRAM 143 Beginning Costuming	3
DRAM 132 Beginning Acting	3
DRAM 133 Intermediate Acting	3
DRAM 134 Beginning Voice for Actors	3
DRAM 165 Introduction to Stage Movement	3
DRAM 205 The American Musical on Stage and Screen	3
DANC 112A Ballet I	1.5
DANC 117A Tap Dance I	1.5
DANC 137A Jazz Dance I	1.5
MUSI 134A Voice Class I	1
Total Units 26.5	

Associate of Arts Degree: Theatre

The Associate of Arts in Theatre provides an opportunity for students to gain practical experience in professional and community theatre work and to prepare themselves for continued higher education. Theatre productions are offered each year, allowing students to develop practical skills while earning college credit for transfer to universities.

The Theatre Arts program offers transfer courses in preparation for university theatre majors as well as fundamental skills in acting and dramatic production useful for employment or for participation in theatre productions.

Courses Required for the Major:		Units
DRAM 105	Introduction to Dramatic Arts	3
DRAM 107	Study of Filmed Plays	3
DRAM 123	Beginning Stagecraft	3
or		
DRAM 143	Beginning Costuming	3
DRAM 124	Makeup for the Stage	3
DRAM 132	Beginning Acting	3
DRAM 133	Intermediate Acting	3
DRAM 134	Beginning Voice for Actors	3
DRAM 165	Introduction to Stage Movement	3

Select three units from the following:

DRAM 103	Acting for Non-majors	3
DRAM 108	Playwriting	3
DRAM 109	Theatre and Social Issues	3
DRAM 111	Chicana/o Theatre	3
DRAM 119	Film and Television Performance	3
DRAM 205	The American Musical on Stage and Screen	3

Total Units = 27

Transfer Information

Common university majors related to the field of Drama include: Drama, Liberal Studies, Theatre, Theatre and Performance Studies, Theatre Arts, Visual and Performing Arts.

Course Requirements for Transfer Students

Students who plan to transfer to a four year college or university and earn a bachelor's degree in this discipline should consult with a counselor or visit the Transfer/Career Center to determine the appropriate major preparation courses for their specific transfer institution and major. Transfer students may also earn an Associate of Arts degree in Liberal Arts and Sciences with an emphasis. This degree may be individually tailored to each student's specific

transfer requirements in order to provide the most efficient path to transfer. More information on transfer programs and procedures is available in the Transfer Programs section of the catalog.

Associate in Arts in Theatre Arts for Transfer Degree:

Description

The Associate in Arts in Theatre Arts for Transfer Degree is intended for students who plan to complete a bachelor's degree in Theatre Arts or a related major in the California State University (CSU) system. It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

The purpose of the Associate in Arts in Theatre Arts for Transfer degree is to offer an organized course of study that will prepare students intending to major in Theatre Arts at the California State University (CSU). It is accepted by some but not all CSU campuses. Students who complete this degree and transfer to a participating CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. It may not be appropriate preparation for students transferring to a CSU campus that does not accept the degree. Students who plan to complete this degree should consult a counselor for additional information about participating CSU campuses as well as university admission, degree and transfer requirements.

NOTE: Students intending to transfer into this major at a CSU should consult with a counselor and visit www.assist.org for guidance on appropriate transfer coursework.

Award Notes

General Education: In addition to the courses listed above, students must complete one of the following general education options:

- The IGETC pattern (see page 126) is accepted by all CSU campuses and most UC campuses and majors. It is also accepted by some private/independent or out of state universities.

- The CSU GE pattern (see page 134) is accepted by all CSU campuses and some private/independent or out of state universities. It is not accepted by the UC system.

It is strongly recommended that students consult with a counselor to determine which general education option is most appropriate for their individual educational goals.

Electives as needed to meet a minimum of 60 CSU-transferable units required for the degree.

The following is required for all AA-T or AS-T degrees:

- Completion of 60 CSU-transferable semester units. No more than 60 units are required.
- Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some CSU campuses and majors may require a higher GPA. Please see a counselor for more information.
- Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major (see list below). All courses in the major must be completed with a grade of "C" or "P" or better.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE; see page 134 for more information); OR the Intersegmental General Education Transfer Curriculum pattern (IGETC; see page 126 for more information).

Career Options

Careers related to this field typically require education beyond the associate degree level and some may require a graduate degree.

Courses Required for the Major:	Units
DRAM 105 Introduction to Dramatic Arts or	
DRAM 136 Theatre History I: Ancient Greece to the Renaissance *	3
DRAM 132 Beginning Acting	3
DRAM 242A Rehearsal and Performance I	3

Select three courses from the following (nine units): *(It is recommended that students select courses that meet lower division major preparation requirements for their transfer university).*

DRAM 123 Beginning Stagecraft	3
DRAM 124 Makeup for the Stage	3
DRAM 133 Intermediate Acting	3
DRAM 143 Beginning Costuming	3

Total Units = 18

Apprenticeship

Award Type	Units
Associate of Science Degree/Certificate of Achievement:	
Operating and Maintenance Engineers	35*
Communications Technician Apprenticeship	36*
San Diego Gas and Electric Company Lineman Apprenticeship	30*
San Diego Transit Electronic Technician Apprenticeship	32*
San Diego Trolley Inc:	
Light Rail Vehicle Lineman Apprenticeship	32-33*
Revenue Maintainer	36-37*
Wayside Lineman	33-34*
Solar Turbines, Incorporated Apprenticeship	29*

* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

Description

The apprenticeship training program provides an opportunity for a balanced approach of on-the-job training and related technical instruction to achieve the position of journeyman in one of the state-approved programs. The length of the program depends on the trade selected and can range from two to five years. The program encourages the transfer of skills and knowledge from master journeyman to apprentices to further employment potential in their trade. The California state system was established in 1939 with the passage of the Shelley-Maloney Apprenticeship Labor Standards Act. This act established the California Apprenticeship Council as the policy-making body; named the State Director of Industrial Relations as the administrator of apprenticeship; authorized the Division of Apprenticeship Standards (DAS) to approve training standards and provide assistance in the development of apprenticeship programs; and assigned responsibility for related and supplemental training to state and local boards responsible for vocational education.

Affirmative Action Statement

The Apprenticeship Committees for whom the District provides related and supplemental instruction have indicated they do not and will not discriminate against any employee or against any applicant for employment because of age, race,

color, religion, handicap, ancestry, sex, or national origin.

Admission To The Program

Indenture in a state-approved apprenticeship program is a required prerequisite to enroll in the apprenticeship related and supplemental classes. Applicants for apprenticeship should contact the employer, program coordinator, or labor union listed before each program in the apprenticeship course description section of the catalog. Each of the individual programs listed in the apprenticeship course description section of this catalog is administered by an apprenticeship committee made up of member representatives from the respective trades or industries. This committee serves as the approval body for all apprenticeship matters relating to the particular trade. See our website for more information: <http://sdcity.edu/academics/schools-programs/business-it-cosmo/apprenticeships.aspx>.

Completion Requirements

In addition to the academic requirements listed, each apprentice must complete the prescribed number of hours of training during the period of the apprenticeship program as approved by the apprenticeship committee to receive the certificate of achievement or two-year degree.

Certificate of Achievement Requirements:

Courses Required for the Major	Units
Completion of the related and supplemental instruction during the period of the program as approved by the Apprenticeship Committee	
Total Units = 25-48	

Associate of Science Degree Requirements:

The Associate of Science Degree is conferred upon successful completion of the required apprenticeship programs of Operating and Maintenance Engineers, San Diego City Civil Service Communications Technician, San Diego Gas and Electric Company, San Diego Trolley, San Diego Transit, or Solar Turbines, Incorporated.

Courses Required for the Major	Units
Completion of the related and supplemental instruction during the period of the program as approved by the Apprenticeship Committee	
Total Units = 25-48	

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Operating and Maintenance Engineers

A four-year apprenticeship program for Operating and Maintenance Engineers. Applications for this program should be directed to Operating and Maintenance Engineers Trade, Local 501, 2501 Wester Third Street, Los Angeles, CA 90057.

Completion Requirements: In addition to the academic requirements listed below, each apprentice must complete the prescribed number of hours of training during the period of the apprenticeship program as approved by the apprenticeship committee to receive the certificate of achievement or two-year degree.

Certificate of Achievement: Operating and Maintenance Engineers

Courses Required for the Major:	Units
ELCT 111 Electrical Theory I	3
ELCT 111L Electrical Laboratory I	2
ELCT 121 Electrical Theory II	3
ELCT 121L Electrical Laboratory II	2
AIRE 100 Basic Refrigeration & AC Theory	4
AIRE 103 Basic Refrigeration & AC Lab	2
AIRE 122 Construction Drawings and Estimating	3
AIRE 123 Construction Drawings and Estimating Lab	1
AIRE 124 Power & Control Systems Theory	3
AIRE 125 Power & Control Systems Lab	2
AIRE 126 Fluid Flow Dynamics	3
AIRE 127 Fluid Flow Dynamics Lab	2
AIRE 132 Advanced Refrigeration Theory	3
AIRE 133 Advanced Refrigeration & AC Lab	2
Total Units = 35	

Associate of Science Degree: Operating and Maintenance Engineers

Courses Required for the Major:		Units
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
AIRE 122	Construction Drawings and Estimating	3
AIRE 123	Construction Drawings and Estimating Lab	1
AIRE 124	Power & Control Systems Theory	3
AIRE 125	Power & Control Systems Lab	2
AIRE 126	Fluid Flow Dynamics	3
AIRE 127	Fluid Flow Dynamics Lab	2
AIRE 132	Advanced Refrigeration Theory	3
AIRE 133	Advanced Refrigeration & AC Lab	2
Total Units = 35		

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: English 101.

Communications Technician Apprenticeship

A four-year apprenticeship program in the installation, maintenance and repair of communications equipment offered through the City of San Diego. This is a promotional opportunity for City of San Diego employees only and applicants must meet criteria specified by the city. For information about employment through the City of San Diego, call 619-682-1011.

This apprenticeship program combines classroom instruction in Electronic Systems with on-the-job training to prepare City of San Diego Communication Technicians in the areas of installation, maintenance and repair of communications equipment in City facilities and vehicles.

Upon successful completion of the program, the student will receive a Journeyman certificate from the State of California, and will be eligible for employment in the field of communication equipment maintenance and repair.

Certificate of Achievement: Communications Technician Apprenticeship

Prepares student for employment as a Communications Technician with the City of San Diego.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 225	Microcontrollers	3
ELDT 225L	Microcontrollers Laboratory	1.5
ELDT 228	Communication Circuits	3
ELDT 228L	Communication Circuits and Certification Laboratory	1
ELDT 229	Advanced Telecommunications Networks	3
ELDT 229L	Advanced Telecommunications Networks Laboratory	1
ELDT 232	Advanced Computer Design and Interfacing	4
ELDT 232L	Advanced Computer Designs Laboratory	1.5
Total Units = 36		

Associate of Science Degree: Communications Technician Apprenticeship

Prepares student for employment as a Communications Technician with the City of San Diego.

Courses Required for the Major:		Units
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 225	Microcontrollers	3
ELDT 225L	Microcontrollers Laboratory	1.5
ELDT 228	Communication Circuits	3
ELDT 228L	Communication Circuits and Certification Laboratory	1

ELDT 229	Advanced Telecommunications Networks	3
ELDT 229L	Advanced Telecommunications Networks Laboratory	1
ELDT 232	Advanced Computer Design and Interfacing	4
ELDT 232L	Advanced Computer Designs Laboratory	1.5
Total Units = 36		

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: Electronic Systems 126, 126L, 227, 227L.

Program Learning Outcomes:

San Diego City Civil Service Communications Technician Apprenticeship students will:

- Demonstrate preparedness for successful transition to the Journeyman level designation and professional certification by the California Division of Apprenticeship Standards for the Communications Technician.
- Illustrate procedures utilized for Communication Technician practices in use of tools techniques and hands-on skills and competencies for Journeyman-level practices in Communication Technician Apprenticeship.
- Identify and utilize equipment and related components of Communications Technician to meet standards for measurement, calibration and Communications Technician practices at Journeyman levels.
- Read, comprehend and apply Communications Technician instructions and design standards for Communications Technician outcomes as required by Communications Technician practice and industry standards.

San Diego Gas and Electric Company Lineman Apprenticeship

A three-year apprenticeship program in various electrical trades at the San Diego Gas and Electric Company (SDG&E). Applications for the following trades are accepted at San Diego Gas & Electric Company IBEW #465, 9060 Friars road, SD1150, San Diego, CA 92108:

1. Electrician;
2. Lineman; and
3. Meter Tester

Completion Requirements

In addition to the academic requirements listed, each apprentice must complete the prescribed number of hours of training during the period of the apprenticeship program as approved by the apprenticeship committee to receive the certificate of achievement or two-year degree.

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. The associate degree requires a minimum of 60 units.

Program Learning Outcomes:

SDGE Company Apprenticeship students will:

- Demonstrate preparedness for successful transition to the Journeyman level designation and professional certification by the SDGE Apprenticeship Standards.
- Illustrate procedures utilized for SDGE trade and industry specific practices in use of tools techniques and hands-on skills and competencies for Journeyman-level practices in SDGE occupations.
- Identify and utilize equipment and related components of SDGE professions to meet SDGE standards for measurement, calibration and SDGE practices at Journeyman levels.
- Read, comprehend and apply SDGE instructions and design standards for SDGE construction or production outcomes as required by SDGE practices and industry standards.

Certificate of Achievement: San Diego Gas and Electric Company Lineman Apprenticeship

Courses Required for the Major:		Units
SDGE 302	Electric Lineman IA	5
SDGE 304	Electric Lineman IB	5
SDGE 310	Electric Lineman IIA	5
SDGE 312	Electric Lineman IIB	5
SDGE 320	Electric Lineman IIIA	5
SDGE 322	Electric Lineman IIIB	5

Total Units = 30

Associate of Science Degree: San Diego Gas and Electric Company Lineman Apprenticeship

Courses Required for the Major:		Units
SDGE 302	Electric Lineman IA	5
SDGE 304	Electric Lineman IB	5
SDGE 310	Electric Lineman IIA	5
SDGE 312	Electric Lineman IIB	5
SDGE 320	Electric Lineman IIIA	5
SDGE 322	Electric Lineman IIIB	5
Total Units = 30		

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: English 101.

San Diego Transit Electronic Technician Apprenticeship

The San Diego Transit apprenticeship program is a four-year program designed to prepare the student for a career as a bus Electronics Technician. For application to the program, please contact San Diego Transit Corporation, 100 16th Street, San Diego, CA 92101. More information is available at: www.sdcommute.com.

Program Goals:

This program will provide training for apprentice bus Electronic Technicians for San Diego Transit.

Program Emphasis:

This program provides related instruction in electronic systems for apprentices working at San Diego Transit.

Career Options:

Bus Electronic Systems Technician.

Certificate of Achievement: San Diego Transit Electronic Technician Apprenticeship

Courses Required for the Major:		Units
MATH 96	Intermediate Algebra and Geometry	5
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4

ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 228	Communication Circuits	3
ELDT 228L	Communication Circuits and Certification Laboratory	1
Total Units = 32		

Associate of Science Degree: San Diego Transit Electronic Technician Apprenticeship

Courses Required for the Major:		Units
MATH 96	Intermediate Algebra and Geometry	5
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4
ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
ELDT 144	OP-AMPS, Sensors and Computers	3
ELDT 144L	OP-AMPS and Sensors Laboratory	1.5
ELDT 228	Communication Circuits	3
ELDT 228L	Communication Circuits and Certification Laboratory	1
Total Units = 32		

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Program Learning Outcomes:

San Diego Transit Electronic Technician Apprenticeship students will:

- Demonstrate preparedness for successful transition to Journeyman level designation and professional certification by the California Division of Apprenticeship Standards.
- Illustrate procedures utilized for San Diego Bus Electronic Technicians practices in use of tools techniques and hands-on skills and competencies for Journeyman-level practices in San Diego Transit work as an apprentice bus electronic technician.

- Identify and utilize equipment and related components of bus electronic technicians to meet standards for measurement, calibration and bus electronic technician practices at Journeyman levels.
- Read, comprehend and apply Electronic Technician instructions and design standards for construction or production outcomes as required by San Diego Transit practices and industry standards.

San Diego Trolley Apprenticeship

A four-year apprenticeship in electro-mechanical trades at San Diego Trolley, Inc (SDTI). Applications for the following trades are accepted at 1255 Imperial Avenue, Suite 900, San Diego, CA 92101-7492:

- Assistant Lineman (Light Rail Vehicle);
- Assistant Lineman (Wayside);
- Lineman (Light Rail Vehicle);
- Lineman (Wayside);
- Revenue Maintainer I; and
- Revenue Maintainer II.

Completion Requirements

Students are recommended to complete courses required for the major in the order presented.

In addition to the academic requirements listed, each apprentice must complete the prescribed number of hours of training during the period of the apprenticeship program as approved by the apprenticeship committee to receive the certificate of achievement or two-year degree.

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. The associate degree requires a minimum of 60 units.

Certificate of Achievement: San Diego Trolley Inc Light Rail Vehicle Lineman Apprenticeship

Courses Required for the Major:		Units
BUSE 101	Business Mathematics	3
or		
MATH 92	Applied Beginning and Intermediate Algebra	4
ELDT 124	Basic DC Electronics	4

ELDT 124L	Basic DC Laboratory	1
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
TROL 301	San Diego Trolley Light Rail Vehicle I	2
TROL 302	San Diego Trolley Light Rail Vehicle II	1.5
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
TROL 303	San Diego Trolley Light Rail Vehicle III	3
TROL 304	San Diego Trolley Light Rail Vehicle IV	3

Total Units = 32-33

Certificate of Achievement: San Diego Trolley Inc Revenue Maintainer Apprenticeship

Courses Required for the Major:		Units
BUSE 101	Business Mathematics	3
or		
MATH 92	Applied Beginning and Intermediate Algebra	4
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4
ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
ELCT 131	Electrical Theory III	3
ELCT 131L	Electrical Laboratory III	2
ELDT 227	Introduction to Lasers and Fiber Optics	3
ELDT 227L	Lasers and Fiber Optics Laboratory	1
INWT 120	Network Fundamentals (Network+)	4

Total Units = 36-37

Certificate of Achievement: San Diego Trolley Inc Wayside Lineman Apprenticeship

Courses Required for the Major:		Units
ELCT 20	Blueprint Reading for Electricians	3
ELCT 30	Modern Commercial Wiring	3
BUSE 101	Business Mathematics	3
or		
MATH 92	Applied Beginning and Intermediate Algebra	4
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3

ELCT 121L	Electrical Laboratory II	2
ELCT 131	Electrical Theory III	3
ELCT 131L	Electrical Laboratory III	2
ELCT 141	Electrical Theory IV	3
ELCT 141L	Electrical Laboratory IV	2
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1

Total Units = 33-34

Associate of Science Degree: San Diego Trolley Inc Light Rail Vehicle Lineman Apprenticeship

Courses Required for the Major:		Units
BUSE 101	Business Mathematics	3
or		
MATH 92	Applied Beginning and Intermediate Algebra	4
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1
TROL 301	San Diego Trolley Light Rail Vehicle I	2
TROL 302	San Diego Trolley Light Rail Vehicle II	1.5
ELDT 143	Semiconductor Devices	3
ELDT 143L	Semiconductor Devices Laboratory	1.5
AIRE 100	Basic Refrigeration & AC Theory	4
AIRE 103	Basic Refrigeration & AC Lab	2
TROL 303	San Diego Trolley Light Rail Vehicle III	3
TROL 304	San Diego Trolley Light Rail Vehicle IV	3

Total Units = 32-33

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: Electronic Systems 125, 125L, 126, 126L, 144, 144L; English 101.

Associate of Science Degree: San Diego Trolley Inc Revenue Maintainer Apprenticeship

Courses Required for the Major:		Units
BUSE 101	Business Mathematics	3
or		
MATH 92	Applied Beginning and Intermediate Algebra	4
ELDT 124	Basic DC Electronics	4
ELDT 124L	Basic DC Laboratory	1
ELDT 125	AC Circuit Analysis	4

ELDT 125L	DC/AC Circuit Analysis Laboratory with Pspice	1
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
ELCT 131	Electrical Theory III	3
ELCT 131L	Electrical Laboratory III	2
ELDT 227	Introduction to Lasers and Fiber Optics	3
ELDT 227L	Lasers and Fiber Optics Laboratory	1
INWT 120	Network Fundamentals (Network+)	4

Total Units = 36-37

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: Electronic Systems 126, 126L, 144, 144L; English 101.

Associate of Science Degree: San Diego Trolley Inc Wayside Lineman Apprenticeship

Courses Required for the Major:		Units
BUSE 101	Business Mathematics	3
or		
MATH 92	Applied Beginning and Intermediate Algebra	4
ELCT 30	Modern Commercial Wiring	3
ELCT 111	Electrical Theory I	3
ELCT 111L	Electrical Laboratory I	2
ELCT 121	Electrical Theory II	3
ELCT 121L	Electrical Laboratory II	2
ELCT 131	Electrical Theory III	3
ELCT 131L	Electrical Laboratory III	2
ELCT 141	Electrical Theory IV	3
ELCT 141L	Electrical Laboratory IV	2
ELCT 20	Blueprint Reading for Electricians	3
ELDT 123	Introduction to Digital Circuits	3
ELDT 123L	Digital Circuits Laboratory	1

Total Units = 33-34

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Recommended electives: Electronic Systems 124, 124L, 125, 125L, 126, 126L, 143, 143L, 144, 144L; English 101.

Program Learning Outcomes:

The San Diego Trolley Apprentice student will:

- Demonstrate preparedness for successful transition to the Journeyman level designation and professional certification by the California Division of Apprenticeship Standards.
- Illustrate procedures utilized for trolley practices in use of tools techniques and hands-on skills and competencies for Journeyman-level practices in trolley occupations.
- Identify and utilize equipment and related components of the trolley profession to meet San Diego Trolley standards for measurement, calibration and trolley practices at Journeyman levels.
- Read, comprehend and apply Trolley trade instructions and design standards for construction or production outcomes in Trolley work as required by San Diego Trolley practices and industry standards.

Solar Turbines, Incorporated Apprenticeship

A four-year indentured apprenticeship program in a number of manufacturing or technical trades is available. Applications for the following trades are accepted at Solar Turbines, Incorporated. 2200 Pacific Coast Highway, P.O. Box 85376 MZ-M1, San Diego, CA 92186-5376.

1. Master Machinist
2. Tool and Die Maker
3. Sheet Metal Experimental Mechanic
4. Precision Machine Tool Mechanic

Enrollment in classes other than those listed will be allowed with the approval of the Solar Turbines Incorporated Apprenticeship Coordinator.

Certificate of Achievement: Solar Turbines, Incorporated Apprenticeship

Courses Required for the Major:	Units
MFET 105 Print Reading and Symbology	3
CHEM 100 Fundamentals of Chemistry	3
CHEM 100L Fundamentals of Chemistry Laboratory	1
MATH 104 Trigonometry	3

MACT 150 Intro/Computer Numerical Control (CNC)	4
ENGL 101 Reading and Composition	3
ENGE 151 Computer-Aided Design	2
MFET 115 Properties of Materials	3
MFET 120 Manufacturing Processes	4
COMS 103 Oral Communication	3

Total Units = 29

Recommended electives: Machine Technology 160M, 170; Manufacturing Engineering Technology 150, 120; Electronic Systems 124; Computer Business Technology 180.

Associate of Science Degree: Solar Turbines, Incorporated Apprenticeship

Courses Required for the Major:	Units
MFET 105 Print Reading and Symbology	3
CHEM 100 Fundamentals of Chemistry	3
CHEM 100L Fundamentals of Chemistry Laboratory	1
MATH 104 Trigonometry	3
MACT 150 Intro/Computer Numerical Control (CNC)	4
ENGL 101 Reading and Composition	3
ENGE 151 Computer-Aided Design	2
MFET 115 Properties of Materials	3
MFET 120 Manufacturing Processes	4
COMS 103 Oral Communication	3

Total Units = 29

Recommended electives: Machine Technology 160M, 170; Manufacturing Engineering Technology 150, 210; Electronic Systems 125; Computer Business Technology 180.

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. **The associate degree requires a minimum of 60 units.**

Program Learning Outcomes:

The Solar Turbine Apprentice student will:

- Demonstrate preparedness for successful transition to the Journeyman level designation and professional certification by the California Division of Apprenticeship Standards.
- Illustrate procedures utilized for Solar Turbine industry specific practices in use of tools techniques and hands-on skills and competencies for Journeyman-level practices in Solar Turbine.

- Identify and utilize equipment and related components of the Solar Turbine profession to meet standards for measurement, calibration and Solar Turbine practices at Journeyman levels.
- Read, comprehend and apply Solar Turbine instructions and design standards for construction or production outcomes as required by Solar Turbine practices and industry standards.

Course Descriptions



General Course Information

Not all courses listed will be offered each semester, and San Diego City College reserves the right to cancel any course if enrollment in such course is below a minimum number as set by the San Diego Community College District Board of Trustees. The hours indicated at the beginning of each course description, except where otherwise specified, denote the total number of clock hours the class meets each week.

Effective 2009-2010 catalog year (and each year thereafter), students must earn a grade of "C" or better in courses required for the major.

Students enrolled in occupational and health occupation programs must earn a grade of "C" or better in courses required for the major.

In accordance with California Education Code, Section 78221.5, students have the right to access transfer-level coursework and academic credit English Language Acquisition (ELAC) coursework. Please refer to Assessment on page 20 or see a counselor for details.

Course Numbering System

The course numbering system has meaning with regard to level and transfer. See the description below:

- **1–49** Basic Skills or college preparatory courses. Credit does not apply toward the associate degree and is not intended for transfer to a four-year college or university. Final determination regarding the transfer of credit rests with the receiving institution.
- **50–99** Course credit applies toward the associate degree and is not intended for transfer to a four-year college or university. Final determination regarding the transfer of credit rests with the receiving institution.
- **100–299** Course credit applies toward the associate degree and is intended for transfer to a four-year college or university. (Some courses may be identified as associate degree applicable only. See catalog course description.) Final determination regarding the transfer of credit rests with the receiving institution. **Note:** Experimental courses numbered 265 may or may not be degree applicable or transferable. Please check the individual course details in the online schedule for more information.

- **300–391** Apprenticeship and in-service courses. See Catalog course description to determine credit for Associate Degree or Transfer.
- **392–399** Special Topics courses that employ a consistent disciplinary framework as described by a complete course outline of record, but utilize a specific focus area that may change from term to term may be offered in some disciplines. See the class schedule for specific titles and course details. (See catalog course description to determine credit for Associate Degree or Transfer.)
- **401–499** Upper division courses. Students must be admitted to a SDCCD college baccalaureate degree program.

Apprenticeship 345, 349, 349-D, DSPS 65, Field Experience/Internship 275, Independent Study 290, Individualized Instruction 296, Experimental Topics 18, 23, 63, 265, Tutoring 44, and Work Experience courses 270, 272 have Districtwide designated numbers.

Prerequisites, Corequisites, Limitations on Enrollment, and Advisories

All prerequisites, corequisites, and limitations on enrollment stated in the course descriptions listed in this catalog will be strictly enforced at the time of registration. Students who do not meet the prerequisite, corequisite, or other limitation according to the college's records, will not be permitted to register for the course. Students are strongly advised to have all transcripts of prior college work and other documentation on file well in advance of registration. This will minimize registration delays. For more information see page 25.

Students should plan their schedule early and see a counselor for assistance.

Challenge Procedures

A student may obtain a petition to Challenge online via the mySDCCD Support Desk and then selecting the Petition to Challenge form: <https://mysdccd.atlassian.net/servicedesk/customer/portal/4/group/73/create/71>. The completed petition with supporting documentation must be filed in the Admissions Office AT LEAST 10 working days prior

to the start of the primary term/semester. Contact the Admissions Office for additional information. For credit by examination, please refer to page 83.

Generic Course Information

Any discipline or department may offer the courses listed below which do not appear individually in the catalog. If applicable to a particular subject area, it will be listed under the appropriate departmental heading (subject indicator) in the college class schedule. For further information, please check with the instructor or department chair.

Supervised Tutoring (44)

Supervised tutoring courses are available in each discipline. To enroll in a supervised tutoring course, a student must be enrolled in a college or basic skills course in the respective discipline. The courses are designed to prepare the student to succeed in the corequisite or subsequent courses. Supervised tutoring may be taken four times, each time with a different corequisite. Not applicable to the Associate Degree.

Experimental Topics (265)

Experimental topics courses that examine an immediate specialized need or focused academic inquiry may be offered in some disciplines. See the class schedule for specific titles and course details.

Special Topics Courses (392–399)

Special topics courses that employ a consistent disciplinary framework as described by a complete course outline of record, but utilize a specific focus area that may change from term to term may be offered in some disciplines. See the class schedule for specific titles and course details. (See catalog course description to determine credit for Associate Degree or Transfer.)

Work Experience (270)

Program of on-the-job learning experiences for students employed in a job related to the major. Students may earn a maximum of fourteen credit hours for all work experience subject areas during one enrollment period. AA/AS; CSU.

Service Learning

Students gain hands-on experience in project planning, development, implementation and evaluation. Students meet weekly to receive support training and development opportunities regarding best practices in Service Learning. The service-learning options are as follows:

Service Learning—High School Projects (277A)

Students in this course develop and implement service-learning projects to help high school students under the supervision of college faculty and in cooperation with high school teachers, counselors and resource teachers. Projects may include collaboration with high school classes, educational projects for high school students, mentoring and shadowing. This course is intended for students from any discipline who are interested in project development, development of teaching skills or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277A discipline courses may not exceed three units. AA/AS; CSU.

Service Learning—Elementary and Junior High School Projects (277B)

Students in this course develop and implement service learning projects to help elementary and junior high school students under the supervision of college faculty and in cooperation with elementary and junior high school teachers, counselors and resource teachers. Projects may include collaboration with elementary and junior high school classes, educational projects for elementary and junior high school students, mentoring, and shadowing. This course is intended for students from any discipline who are interested in project development, development of teaching skills, or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277B discipline courses may not exceed three units. AA/AS; CSU.

Service Learning—Community (277C)

Students in this course develop and implement service-learning projects to help the college's community under the supervision of college faculty

and in cooperation with the staff of community organizations and agencies. Projects may include collaboration with off-campus community organizations and educational service oriented projects for the college's community. This course is intended for students from any discipline who are interested in project development, development of teaching skills, or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277C discipline courses may not exceed three units. AA/AS; CSU.

Service Learning—On Campus (277D)

Students in this course develop and implement service-learning projects to help the college's students under the supervision of college faculty and in cooperation with college counselors and staff. Projects may include collaboration with college classes, educational projects for college students, mentoring, and shadowing. This course is intended for students from any discipline who are interested in project development, development of teaching skills, or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277D discipline courses may not exceed three units. AA/AS; CSU.

Independent Study (290)

This course is for students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

Individualized Instruction (296)

This course provides supplemental instruction to reinforce achievement of the learning objectives of a course in the same discipline under the supervision of the instructor of the designated course. Learning activities may employ a variety of self-paced multimedia learning systems, language labs, print and electronic resources, laboratory, or field research arrangements, to assist student in reaching specific learning objectives. This open entry/open exit course

is offered concurrently with designated courses. AA/AS; CSU.

Explanation of Terms

Courses in the San Diego Community College District that are associate degree applicable and/or transfer to public four-year universities in California are identified at the end of each course description with the following statements:

AA/AS: Associate Degree Applicable. The course will apply toward the units required for the associate degree at San Diego Community College District colleges. The course is not intended for transfer to a four-year college or university. However, final determination of transfer credit rests with the receiving institution.

CSU: California State University Applicable. The course will apply toward the units required for the baccalaureate degree at the California State University system.

UC: University of California Applicable. The course will apply toward the units required for the baccalaureate degree at the University of California system.

UC Transfer Limitation. See a counselor or reference ASSIST.org: There may be limitations on the number of units that are applied from this course toward the total number of lower division units required for the baccalaureate degree at the University of California. Students should see a counselor or reference ASSIST.org concerning these limitations. The University of California limits the maximum amount of lower division credit that can be applied toward the baccalaureate degree in a variety of disciplines, including Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) and Library Science.

Field Trip: (FT) A field trip may be required for this course. Detailed information concerning costs incurred will be provided by the instructor.

Private Colleges/Independent/Out-of-State:

Note regarding Private / Independent / Out-of-state institutions: San Diego Community College District courses that are designated as CSU or UC transferable may apply toward the total number of lower division units required for the baccalaureate degree at private, independent, and/or out-of-state colleges and universities; however, the final

evaluation of course credit will be determined by the individual private, independent, or out-of-state institution.

Exercise Science Classes/ Intercollegiate Sports-disclaimer

Participation in all sports and exercise science activities involves certain inherent risks. Risks may include, but are not limited to, neck and spinal injuries that may result in paralysis or brain injury, injury to bones, joints, ligaments, muscles, tendons and other aspects of the muscular skeleton system; and serious injury, or impairment, to other aspects of the body and general health, including death. The San Diego Community College District, its officers, agents and employees are not responsible for the inherent risks associated with participation in exercise science classes/intercollegiate sports. Students are strongly advised to consult a physician prior to participating in any exercise science activity.

UC Transfer and Physical Education Courses

The University of California divides physical education courses into three categories: 1) Activity; 2) Theory, and 3) Academic/Scholarly. Credit for Activity courses is limited to four (4) units. Credit for Theory courses is limited to eight (8) units. No credit limitation is established for Academic/Scholarly courses. All UC-transferable physical education courses and their associated unit limitations are listed on Web ASSIST at: www.assist.org.

UC Transfer and Variable Topics Courses

These courses are also called "Independent Studies", "Special Studies", "Experimental Topics", "Field Work", etc. Credit for variable topics courses is given only after a review of the scope and content of the course by the enrolling UC campus. This usually occurs after transfer and may require recommendations from faculty. Information about internships may also be presented for review, but credit for internships rarely transfers to UC. UC does not grant credit for variable topics courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments because of credit restrictions in these areas.

Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. The purpose of a C-ID designation is to identify comparable courses within the California community college system and participating four-year institutions. When a C-ID number is listed in the catalog in association with a course, students can be assured that it will be accepted in lieu of a course bearing the same C-ID designation at another California community college. Many universities, including the University of California (UC) do not participate in the C-ID system. Therefore, students should always reference www.assist.org to confirm how each community college's course will be accepted at a specific four-year college or university for transfer credit.

Asian American Pacific Islander Studies (AAPI)

124 Introduction to Asian American and Pacific Islander Studies

**3 hours lecture, 3 units
Grade Only**

This course is an introduction to Asian American and Pacific Islander (AAPI) Studies and the evolution of the disciplines within the field of Ethnic Studies. Emphasis is placed on the formation of AAPI identities, and the experiences of AAPI communities through the lens of equity, self-determination, liberation, decolonization, and antiracism. Topics include AAPI engagement with the U.S. political and legal system and the US Constitution, California state and local governments, immigration legislation, white supremacy, and settler colonialism; historical and contemporary AAPI social justice movements to address anti-Asian violence; transnational familial and community politics; and the intersection of race, class, gender, and sexuality in the formation and

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

development of AAPI communities in the United States. This course is intended for all students interested in Asian American and Pacific Islander Studies. (FT) AA/AS; CSU; UC.

Accounting (ACCT)

102 Basic Accounting

**3 hours lecture, 3 units
Grade Only**

This course is a study of the theory and practice of the accounting process. Emphasis is placed on accounting transactions and bookkeeping. Topics include business documents; journals and ledgers; opening, adjusting and closing entries; and payroll. This course is intended for students interested in a practical approach to accounting. It can be used as preparation for the Certified Public Accountant (CPA) exam. (FT) AA/AS; CSU.

116A Financial Accounting

**4 hours lecture, 4 units
Grade Only**

Advisory: Accounting 102 with a grade of "C" or better, or equivalent.

This introductory course is an overview of financial accounting, why it is important, and how it is used by investors and creditors to make decisions. It covers the accounting information system, the recording and reporting of business transactions with a focus on the accounting cycle, the applications of generally accepted accounting principles (GAAP), the classified financial statements, and statement analysis. Other topics include issues related to asset, liability, and equity valuation; revenue and expense recognition; cash flows; internal controls; and ethics. This course is intended for students majoring in accounting or other fields related to business administration. (FT) AA/AS; CSU; UC; C-ID ACCT 110.

116B Managerial Accounting

**4 hours lecture, 4 units
Grade Only**

Prerequisite: Accounting 116A with a grade of "C" or better, or equivalent. This course is a study of how managers use accounting information in decision-making, planning, directing operations, and controlling. The course focuses on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Other topics include profit planning, standard costs, operations and capital

budgeting, cost control, and accounting for costs in manufacturing organizations. This course is intended for students majoring in accounting or other fields related to business administration. (FT) AA/AS; CSU; UC; C-ID ACCT 120.

119 Accounting Ethics

**3 hours lecture, 3 units
Grade Only**

This course provides an introduction to ethical reasoning, integrity, objectivity, independence, core values, and professional issues in accounting. Emphasis is placed on the importance of ethics in tax preparation, managerial accounting, and attest services. This course explores various models of accounting ethics through today's professional requirements of the American Institute of Certified Professional Accountant's (AICPA) Code of Professional Conduct, the State Board of Accountancy, Internal Revenue Service Circular No. 230, and other regulatory agencies. This course is intended for students majoring in Accounting, Certified Public Accountant (CPA) licensees, CPA exam applicants, Enrolled Agents, and other tax return preparers. Note: Students interested in earning Enrolled Agent, Enrolled Retirement Plan Agent, or Registered Tax Return Preparer continuing education credits with the Internal Revenue Service, must take Accounting 119 with San Diego City College. (FT) AA/AS; CSU.

120 Federal Income Tax

**3 hours lecture, 3 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Accounting 116A with a grade of "C" or better, or equivalent.

This course introduces tax concepts and tax laws that govern individuals who pay federal income taxes. Emphasis is placed on recognizing the social, economic, and political factors that Congress considers when it creates tax laws. This course relates tax codes to the individual and identifies how tax planning skills can determine economic outcomes. In addition, the course demonstrates and differentiates between tax avoidance and tax evasion. It is intended for students majoring in Accounting or anyone interested in federal income tax concepts and laws. (FT) AA/AS; CSU.

121 California Income Tax**1 hour lecture, 1 unit
Grade Only**

Advisory: Concurrent enrollment in Accounting 120. This course is a study of California personal income taxation and tax planning. Emphasis is placed on tax concepts and related social economic issues rather than tax return preparation. The course distinguishes between California and federal income tax requirements. It is intended for all students interested in California income tax. (FT) AA/AS; CSU.

125 Government & Not-for-Profit Accounting**3 hours lecture, 3 units
Grade Only**

Prerequisite: Accounting 116A with a grade of "C" or better, or equivalent. The course provides instruction in the principles of fund accounting and budgeting including revenues, appropriations, encumbrances, internal controls for both governmental and not-for-profit entities. This course is intended for students majoring in Accounting and returning students preparing for their Certified Public Accountant (CPA) exam. AA/AS; CSU.

128A Recordkeeping**1.5 hours lecture, 1.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Accounting 128. This course is an introductory study of basic accounting recordkeeping procedures required to manage a business. Emphasis is placed on the practical application of recording, summarizing, and reporting business transactions for internal purposes as well as for completing federal, state, and local reporting requirements. This course is for students majoring in accounting, business studies, small business owners, and anyone interested in entry-level employment in the field. (FT) AA/AS; CSU.

128B Payroll**1.5 hours lecture, 1.5 units
Grade Only**

Advisory: Accounting 128A with a grade of "C" or better, or equivalent. *Limitation on Enrollment:* This course is not open to students with previous credit for Accounting 128. This course is an introductory study of the basic payroll requirements for businesses operating in California. Emphasis is placed on differentiating between employees and independent contractors,

and the practical application of procedures related to payroll preparation, payroll deposits, and quarterly and annual payroll reports for the California and United States governments. This course is for students majoring in accounting, business studies, small business owners, and anyone interested in entry-level employment in the field. (FT) AA/AS; CSU.

132 Internal Revenue Service Tax Training**1 hour lecture, 1 unit
Grade Only**

This course trains students to prepare taxes through the Volunteer Income Tax Assistance Program (VITA). The VITA Program gives low-income families in the community the opportunity to receive complementary tax preparation. Emphasis for this course is placed on tax preparer VITA certification and proficiency with the Internal Revenue Service (IRS) tax software system. Topics include an overview of the tax preparation process, Form 1040 and support schedule preparation, income definition, adjustments to income, standard and itemized deductions, credit application, and VITA program requirements. This course is intended for students majoring in accounting or business, and those students interested in tax preparation. (FT) AA/AS; CSU.

135 Principles of Auditing**3 hours lecture, 3 units
Grade Only**

Prerequisite: Accounting 116A with a grade of "C" or better, or equivalent.

This is a basic course concerned with financial statement auditing as well as other assurance services provided by professional auditors. All phases of auditing including ethics, standards, planning, fieldwork and reporting are covered. This course is intended for students majoring in Accounting. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

150 Computer Accounting Applications
3 hours lecture, 3 units
Grade Only

Advisory: Completion of or concurrent enrollment in Accounting 102 or Accounting 116A, each with a grade of “C” or better, or equivalent. This course illustrates how to use accounting computer programs in a commercial business enterprise. The main objective is to provide the student with a complete guide to creating and maintaining a proper accounting system while using a popular accounting software program (QuickBooks Pro) on a personal computer. The full accounting cycle and payroll is evaluated within a typical business environment. Business transactions are identified, labeled, recorded, and processed for both service and merchandise businesses. In addition, financial statements are constructed, evaluated, and reviewed for accuracy and completeness. This course is intended for students majoring in Accounting or those interested in computer accounting programs. (FT) AA/AS; CSU.

220 Uniform CPA Examination Review Course
4 hours lecture, 4 units
Grade Only

This is a review course preparing students to take the Uniform CPA Examination. Students explore a survey of each of the four sections of the exam: Auditing and Attestation (AUD), Business Environment and Concepts (BEC), Financial Accounting and Reporting (FAR), and Regulation (REG). Emphasis is placed on test-taking best practices and improving topic comprehension. This course is intended for students interested in preparing for the Uniform CPA Examination. (FT) AA/AS; CSU.

270 Accounting Internship / Work Experience
54-216 hours other, 1–4 units
Grade Only

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment. This course provides on-the-job learning experiences for students employed in an accounting-related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring

in Accountancy or those interested in the accounting field. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Administration of Justice (ADJU)

There is currently no program in Administration of Justice. The following courses are offered and may be used as associate degree electives.

101 Introduction to Administration of Justice
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Administration of Justice 101A, 101B or 101C.

This course introduces students to the philosophy and history of administration of justice. It provides an overview of crime, police problems, and the organization and jurisdiction of law enforcement agencies. Students survey professional career opportunities and qualifications. This course is intended for students majoring in Administration of Justice. (FT) AA/AS; CSU; UC; C-ID AJ 110.

102 Criminal Law I
3 hours lecture, 3 units
Grade Only

This course introduces students to the scope and source of criminal law and classification of crimes against persons, property, morals, and public welfare. Topics include classification and general elements of crime, the definitions of common and statutory law, acceptable evidence, types of intent, capacity to commit crimes, legal defenses, criminal culpability, parties to crime, laws of arrest, and Constitutional background. This course is intended for students majoring in Administration of Justice or anyone interested in criminal law. (FT) AA/AS; CSU. C-ID AJ 120.

Agriculture (AGRI)

100 Principles of Sustainable Agriculture

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an overview of the historical, social and ecological foundations for a sustainable agriculture. Students gain an understanding of the origins of agriculture, the rise of industrial agriculture, the rise of sustainable agriculture, and the context in which we find ourselves today. This course is intended for students interested in agriculture, environmental science and sustainability. (FT) AA/AS; CSU; UC.

102 Sustainable Urban Agricultural Practice

1.5 hours lecture, 4.5 hours lab, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course integrates theoretical and practical aspects of small-scale organic urban farming. It includes hands-on instruction and an introduction to a range of farm-related topics, including composting and vermicomposting, irrigation systems, propagation and greenhouse management, soil fertility, integrated pest management, plant pathology and disease management, permaculture techniques, and small fruit orchard management. Students explore personal agricultural interests through research projects, visit local farms and gardens and attend key sustainable garden and farm events throughout the semester. This course is intended for students interested in agriculture, environmental science and sustainability. (FT) AA/AS; CSU.

104 Sustainable Vegetable Production

2 hours lecture, 3 hours lab, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Agriculture 102 with a grade of “C” or better, or equivalent.

This course covers environmental requirements and management strategies for the sustainable production of major vegetable crops in California. Topics includes crop maintenance, crop planning, direct marketing, harvesting, post-harvest handling,

and food safety for vegetable crops. Organic methods suitable for small-scale urban farms are emphasized. This course is intended for students interested in agriculture, environmental science, agricultural education, and sustainability. (FT) AA/AS; CSU; UC.

107 Introduction to Agricultural Plant Science

3 hours lecture, 3 hours lab, 4 units
Grade Only

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Agriculture 120. This course is an introduction to agricultural plant science. Emphasis is placed on the anatomy, development, physiology, reproductive biology, and ecology and evolution of agricultural plant groups. This course is intended for students majoring in Agricultural Plant Science or Sustainable Urban Agriculture and all students interested in plant science. (FT) AA/AS; CSU; UC; C-ID AG-PS 106L.

110 Introduction to Fruit Tree Management

2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course introduces students to fruit tree selection, planting and care for small-scale orchards or home gardens. Topics include site and variety selection, orchard design, pruning and training, basics of integrated pest management, fruit tree propagation and soil management. Major fruit trees grown in California are discussed, both deciduous and subtropical. Organic production methods are emphasized. This course is intended for students interested in agricultural production, agricultural education and sustainability. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

114 Plant Propagation**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent; Agriculture 107 with a grade of “C” or better, or equivalent.

This course is an introduction to plant propagation and greenhouse production practices.

Emphasis is placed on greenhouse operations, propagation techniques, and management of seed germination and seedling development.

Topics include sexual and asexual reproduction, planting and transplanting, fertilizing, pest and disease management, propagation media and soil mixes, greenhouse structure and site layout, use and maintenance of tools and equipment, and regulations pertaining to plant production. This course is intended for students majoring in Agricultural Plant Science or Sustainable Urban Agriculture and all students interested in agricultural production management. (FT) AA/AS; CSU; C-ID AG-EH 116L.

116 Drip Irrigation Basics**2 hours lecture, 2 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course integrates theoretical and practical aspects of modern high efficiency, low volume irrigation design, installation and maintenance. Topics include water use in California’s Southwestern desert climate, site analysis, soil/water relationships, and transformation of existing wasteful irrigation systems to efficient low volume systems. Students troubleshoot and solve irrigation system problems and prepare a cost estimate for an irrigation system. This course is intended for students interested in agriculture, water conservation, or landscape technology. (FT) AA/AS; CSU.

125 Introduction to Soil Science**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Agriculture 108. This course demonstrates the vital connection between soil and the food chain that sustains life on this planet. Topics include the physical, chemical, and biological structure of soils, current trends in soil erosion and degradation control, the many roles

that soil plays in our environment, and the symbiotic relationship between beneficial soil microorganisms, and plants. Students participate in creating and maintaining enhanced soil fertility through proper soil management practices. This course is intended for students majoring in Agricultural Plant Science or Sustainable Urban Agriculture and all students interested in the theory and practice of sustainable urban agriculture, soil conservation, and management. (FT) AA/AS; CSU; UC; C-ID AG-PS 128L.

128 Food Preservation Skills**1 hour lecture, 1 unit
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course introduces students to the practice of Food Preservation in a time of energy descent. Topics include canning, dehydrating, fermenting, food preservation history and philosophical approaches associated with ensuring food security. This course is intended for students interested in agricultural production, culinary arts and food science. (FT) AA/AS; CSU.

**270 Work Experience in Sustainable Urban
Agriculture****54–216 hours other, 1–4 units
Grade Only**

A program of on-the-job learning experiences for students employed in a job related to an occupationally oriented major for which no work experience course is offered. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. (FT) AA/AS; CSU.

**Air Conditioning, Heating and Solar
Energy (AIRE)****60 Construction Safety and Health****2 hours lecture, 2 units
Grade Only**

This course is designed to prepare students to perform as what Occupational Safety and Health Administration (OSHA) defines as a competent person - able to recognize hazards associated with a particular task and mitigate associated hazards. Emphasis is placed on identifying and addressing safety and health problems on construction

worksites. Topics include a broad spectrum of health and safety workplace concerns regarding OSHA construction standards. This course is designed for students interested in construction technology, job-site safety, hazard identification, avoidance control, and injury and illness prevention. (FT) AA/AS.

94 HVAC/R Certification Training

**3 hours lecture, 3 units
Grade Only**

This course is designed to prepare students for various industry recognized certifications pertaining to the Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) industry. Emphasis is placed on industry specific certification readiness. Topics include Environmental Protection Agency (EPA) Section 608 Technician Certification, Environmentally Safe R-410A Service Techniques, Preventive Maintenance Techniques, GREEN HVAC/R Technician Certification, and Techniques and Regulations for the Safe Handling of Flammable Hydrocarbon and Hydrofluoroolefin Refrigerants. This course is designed for students interested in gaining competitive advantage through certification while fulfilling entry level requirements to enter the HVAC/R industry. (FT) AA/AS.

100 Basic Refrigeration & AC Theory

**4 hours lecture, 4 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 103.

This course is a study of elementary thermodynamics as applied to Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) systems, including molecular theory of temperature, pressure and heat. Emphasis is placed on the vapor-compression refrigeration cycle, HVACR system components, their thermal performance and applications. Discussions include historical to modern systems, with emphasis placed on new energy-saving technologies and methods being employed in this dynamic industry. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. (FT) AA/AS; CSU.

103 Basic Refrigeration & AC Lab

**6 hours lab, 2 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 100.

This course is a hands-on, project-oriented study of the tools, materials, methods and equipment

used in Heating, Ventilation, Air Conditioning and Refrigeration (HVACR). Emphasis is placed on projects related to heat transfer and the refrigeration cycle, system evacuation, charging, and refrigerant recovery and leak testing as they apply to normal HVACR industry activities. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. (FT) AA/AS; CSU.

122 Construction Drawings and Estimating

**3 hours lecture, 3 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 123.

Advisory: Air Conditioning, Heating, and Solar Energy 100 with a grade of "C" or better, or equivalent.

This course is a study of the generation, reading and interpretation of construction drawings from initial concepts to actual building construction. Emphasis is placed on how the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) systems are integrated into the structure by architects, engineers and ultimately the construction contractors and subcontractors. Course content includes architectural, mechanical, electrical and plumbing drawings, and also covers job planning, sources and use of pricing guidelines, municipal, county, state and federal codes, energy codes and standards, specifications and computer software programs used in the development of construction drawings and used for construction estimating. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. (FT) AA/AS; CSU.

123 Construction Drawings and Estimating Lab

**3 hours lab, 1 unit
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 122.

Advisory: Air Conditioning, Heating, and Solar Energy 100 with a grade of "C" or better, or equivalent.

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Milestone formerly referred to as Skill Level

Limitation on Enrollment: This course is not open to students with previous credit for Environmental Control Technology 123.

This laboratory course provides practice in the reading of construction drawings and plans for structures and building components. Students use pricing guides for Heating, Ventilation, Air Conditioning and Refrigeration (HVACR), computer-aided drafting software, engineering and architectural scales, and elementary sketching and drawing techniques to complete laboratory projects. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. AA/AS; CSU.

124 Power & Control Systems Theory **3 hours lecture, 3 units** **Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 125.

Advisory: Completion of or concurrent enrollment in Air Conditioning, Heating, and Solar Energy 100 with a grade of "C" or better, or equivalent.

This course is a study of electrical power and control systems for Heating, Ventilation, Air Conditioning and Refrigeration (HVACR). Subjects include Ohm's Law and Kirchoff's Law for direct current (DC) and alternating current (AC) circuits, series and parallel power and control circuits, electrical schematic and wiring diagrams, and motor theory. Emphasis is placed on the operational theory and application of components commonly encountered in modern HVACR systems, electrical controls, and circuits for compressors, pumps and fans. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. (FT) AA/AS; CSU.

125 Power & Control Systems Lab **6 hours lab, 2 units** **Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 124.

Advisory: Completion of or concurrent enrollment in Air Conditioning, Heating, and Solar Energy 100 and 103, each with a grade of "C" or better, or equivalent. This course utilizes a series of laboratory projects that provide hands-on student training with test and measuring tools, benchtop trainers and actual heating, ventilation, air conditioning and refrigeration (HVACR) systems. Projects include the use of digital-volt-ohm-meters (DVOM), in-circuit and clamp-on ammeters, meggers, and other modern

tools in analyzing HVACR power and control circuits. Logical troubleshooting and diagnosis methods are demonstrated and utilized with computer simulation software and in laboratory projects. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. (FT) AA/AS; CSU.

126 Fluid Flow Dynamics **3 hours lecture, 3 units** **Grade Only**

Corequisite: Completion of or concurrent enrollment in Air Conditioning, Heating and Solar Energy 127 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Environmental Control Technology 126.

Fundamental laws governing air flow in ducting systems; fans, system curves, fan curves, common methods of air distribution; friction losses in ducts; use of system calculators; laws of hydronics; pipe sizing, pump sizing; pressure losses in hydronic systems; air psychometries; water treatment and air filtration fundamentals. AA/AS; CSU.

127 Fluid Flow Dynamics Lab **6 hours lab, 2 units** **Grade Only**

Corequisite: Air Conditioning, Heating and Solar Energy 126.

Limitation on Enrollment: This course is not open to students with credit for Environmental Control Technology 127.

This laboratory course provides practice in fluid measuring methods and instrumentation. Emphasis is placed on working with instruments such as pitot tube devices and velometers to illustrate the interaction of fluid systems curves. Course content also includes air psychometries, air and hydronic system balancing and measurement of sound. AA/AS; CSU.

128 Comfort Heating Systems Theory **4 hours lecture, 4 units** **Grade Only**

Corequisite: Air Conditioning, Heating and Solar Energy 129.

Limitation on Enrollment: This course is not open to students with previous credit for Air Conditioning, Refrigeration and Environmental Control Technology 112.

This course engages in the study, identification, and understanding of the safe operation of comfort

heating equipment and systems. Instruction includes the use of combustion analyzers to evaluate the combustion process of various fuels, their heat output, analysis of bi-products, equipment capacity and combustion efficiency. The course includes discussions on equipment design, installation and maintenance in common types of comfort heating systems, including forced-air fuel-fired furnaces, boilers, heatpumps and airhandlers, hydronic heating and integrated conventional and alternative energy systems. This course is intended for students who are majoring in Air Conditioning, Heating and Solar Energy. (FT) AA/AS; CSU.

129 Comfort Heating Systems Lab

**6 hours lab, 2 units
Grade Only**

Corequisite: Air Conditioning, Heating and Solar Energy 128.

Limitation on Enrollment: This course is not open to students with previous credit for Air Conditioning, Refrigeration, and Environmental Control Technology 113.

This course involves a series of demonstrations and lab projects to provide identification, knowledge and understanding of the safe operation of comfort heating equipment and systems. Readings from combustion analyzers are used to evaluate the combustion process of various fuels, their heat output, analysis of bi-products, equipment capacity and combustion efficiency. The course includes design, maintenance training and practice on common types of comfort heating systems, including forced-air gas-fired and oil-fired furnaces, boilers, furnaces, heatpump fancoils, hydronic heating and integrated conventional and alternative energy systems. This course is intended for students who are majoring in Air Conditioning, Heating and Solar Energy. (FT) AA/AS; CSU.

132 Advanced Refrigeration & AC Theory

**3 hours lecture, 3 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 133.

Advisory: Air Conditioning, Heating, and Solar Energy 100 and 103, each with a grade of "C" or better, or equivalent.

This course is a comprehensive thermodynamic analysis of air conditioning and refrigeration systems using Mollier diagrams and mathematical system process calculations. Topics include heat exchanger design, condensers, evaporators, cooling

towers, evaporative condensers, metering devices, compressor design and performance, system piping and lubrication. Studies include multi-evaporator vapor-compression, cascade, cryogenic, and absorption systems. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. (FT) AA/AS; CSU.

133 Advanced Refrigeration & AC Lab

**6 hours lab, 2 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 132.

This course is a rigorous series of projects encompassing the operation and servicing of heating, ventilation, air conditioning and refrigeration (HVACR) systems. Projects include taking pressure, temperature and airflow readings on normal and malfunctioning systems, thermodynamic analyses using Mollier diagrams, troubleshooting, diagnosis and repair. Tasks involve the use of various refrigerants and secondary control devices such as pressure regulators and head pressure controls and the use of modern industry-standard tools and test equipment. This course is intended for students interested in heating, refrigeration and air conditioning technology, and solar energy. (FT) AA/AS; CSU.

138 HVAC System Design

**3 hours lecture, 3 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 139.

Advisory: Air Conditioning, Heating, and Solar Energy 100, 126, 128, and 132, each with a grade of "C" or better, or equivalent.

This course is a rigorous study in the design of Heating, Ventilation and Air Conditioning (HVAC) systems for buildings. Course topics include, building envelope, heating and cooling load calculations, vapor-compression system selection and optimization, hydronic system design applications, and conservation techniques. This course is intended for students pursuing certificates

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

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Milestone formerly referred to as Skill Level

or an associate degree in Air Conditioning, Heating and Solar Energy. (FT) AA/AS; CSU.

139 HVAC System Design Lab

**6 hours lab, 2 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 138.

Advisory: Air Conditioning, Heating, and Solar Energy 100, 127, 129, and 133, each with a grade of "C" or better, or equivalent.

This course employs design techniques for the development of commercial Heating, Ventilation, and Air Conditioning (HVAC) systems. Projects include a series of applied building heating and cooling load calculations, applied psychrometrics; system and equipment selection with the use of design manuals, tables, and manufacturers catalogs. Applied energy conservation techniques are included. This course is intended for students pursuing certificates or an associate degree in Air Conditioning, Heating and Solar Energy. (FT) AA/AS; CSU.

144 Direct Digital Controls Theory

**4 hours lecture, 4 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 145.

Advisory: Air Conditioning, Heating, and Solar Energy 100, 124 and 132, each with a grade of "C" or better, or equivalent.

This course is a study of Direct Digital Control (DDC) theory: rationale, DDC system design, DDC system sensors, DDC controllers and advanced heating, ventilation and air conditioning (HVAC) controls, network architecture, Internet protocol (IP) addressing and interoperation, open and non-proprietary systems, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) BACnet, and the LonWorks platform. The course examines BACnet DDC hybrid control strategies using various analog and binary system actuators. Specific emphasis is placed on developing student skills using networks that are built into the AIRE Program DDC lab equipment and utilized throughout the world. This course is intended for students in the air conditioning, heating and refrigeration technology program and professionals who want to update their skills. (FT) AA/AS; CSU.

145 Direct Digital Controls Lab

**6 hours lab, 2 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 144.

Advisory: Air Conditioning, Heating, and Solar Energy 125 with a grade of "C" or better, or equivalent. This course applies Direct Digital Control (DDC) theory to laboratory projects: system design, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) BACnet DDC controller selection and integration with heating, ventilation and air conditioning (HVAC) system components, BACnet network architecture, development of graphical views and hierarchical database tree, logical BACnet program development, and construction of DDC system operator machine interface graphics. Course projects include the development of a facility graphical view and control hierarchy tree, setup of a control logic diagram using blocks, symbols and wires, and construction of an operator graphical interface. Laboratory training simulations are compared to actual DDC HVAC control strategies used throughout the world. This course is intended for students in the air conditioning, heating and refrigeration technology program and professionals who want to update their skills. (FT) AA/AS; CSU.

160 Solar Energy Utilization Theory

**3 hours lecture, 3 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 161.

Advisory: Air Conditioning, Heating, and Solar Energy 100 and 124, each with a grade of "C" or better, or equivalent.

This course studies solar-thermal and photovoltaic (PV) systems, siting considerations, types of collectors and systems, operating efficiencies, building codes and solar rights. Topics include: passive and active solar thermal systems; residential and commercial systems for water heating, space heating, space cooling, process heating, swimming pool heating, and hybrid systems. Study of photovoltaic technologies includes the solar cell, independent, grid-connected, hybrid systems and electric bill reduction strategies. This course is intended for students interested in solar energy. (FT) AA/AS; CSU.

161 Solar Energy Utilization Lab**6 hours lab, 2 units
Grade Only**

Corequisite: Air Conditioning, Heating, and Solar Energy 160.

Advisory: Air Conditioning, Heating, and Solar Energy 100 and Air Conditioning, Heating, and Solar Energy 125, each with a grade of "C" or better, or equivalent. This course includes a series of solar thermal and photovoltaic (PV) laboratory projects. Solar collector and system performance data are recorded and analyzed and efficiencies calculated. Topics include collector/module azimuth and tilt, thermal open and closed loop systems, freeze protection, stagnation; stand-alone, grid-connected and hybrid photovoltaic systems are studied. This course is intended for students interested in solar technology. (FT) AA/AS; CSU.

270 Work Experience in Air Conditioning, Refrigeration, Environmental Control Technology**54-216 hours 1-4 units
Grade Only**

Limitation on Enrollment: Must obtain a permission number from Work Experience Coordinator for registration. A program of on-the-job learning experience for students employed in a job related to their major or their educational goal. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. AA/AS; CSU.

290 Independent Study in Air Conditioning, Refrigeration, Environmental Control Technology**Hours by Arrangement, 1-3 units
Grade Only**

Limitation on Enrollment: Must obtain a permission number from instructor for registration. This course is not open to students with credit for Environmental Control Technology 290.

For students who wish to study special problems. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on

page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Alcohol and Other Drug Studies (AODS)**150 Introduction to Chemical Dependency****3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the basic concepts of chemical dependency. Emphasis is placed on an analyzing of chemical dependency from an interdisciplinary level and on examining the socio-cultural patterns of dependency. Individual student's potential as a chemical dependency counselor is addressed. Students beginning the Alcohol and Other Drug Studies program should start with this course. This course is also appropriate for all students interested in learning more about alcohol and other drug use, abuse and dependency. (FT) AA/AS; CSU.

153 Chemical Dependency Family Counseling Techniques**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Alcohol and Other Drug Studies 150 and 154, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Alcohol and Other Drug Studies 158.

This course is a study of the theories and practices related to the family dynamics involved when a member has a substance use problem. Emphasis is placed on therapeutic techniques designed to facilitate effective intervention strategies for the family as a system and for individuals within that system. Topics include assessment, family role delineation, family rules, co-dependency, open

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

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UC = University of California Applicable

Milestone formerly referred to as Skill Level

and closed family systems, intervention techniques and treatment modalities. This course is intended for students in the Alcohol and Other Drug Studies program and all students interested in the family dynamics in chemical dependency. (FT) AA/AS; CSU; C-ID ADS 180X.

154 Law, Ethics, and Skills in Alcohol and Other Drug Counseling

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Alcohol and Other Drug Studies 150 with a grade of “C” or better, or equivalent.

This course is a study of ethical and legal components of substance use treatment. Emphasis is placed on professional responsibility and patients’ rights as they relate to various models of primary prevention and intervention. Topics include community needs and resources and the influence of the media on prevention and intervention. This course is intended for students in the Alcohol and Other Drug Studies program. (FT) AA/AS; CSU; C-ID ADS 160X.

155 Culturally Informed Practices

**3 hours lecture, 3 units
Grade Only**

Advisory: Alcohol and Other Drug Studies 150 with a grade of “C” or better, or equivalent; English 101 with a grade of “C” or better, or equivalent.

This course is an exploration of historical, cultural, social, political, economic, health, and environmental issues involved in intercultural interactions between client and provider during the counseling process. Emphasis is placed on special problems, issues, and concerns of modern living within specific population groups, specifically those populations traditionally marginalized by society. Topics include: social-psychological dynamics of diverse populations and characteristics – ethnicity/race, gender, age, economic, sexual orientation, and disability status – of these populations with respect to the incidence of substance use disorders, intervention needs, and responses to treatment. Ethnic and cultural differences are examined to begin development of intercultural awareness, cultural competency, and culturally relevant practices in order to effectively interact and communicate with these populations. This course is designed for students interested in the social sciences, those considering careers in

counseling, teaching, social work, psychology, or nursing, or students majoring in alcohol and other drug studies. (FT) AA/AS; CSU.

156 Case Management in Alcohol and Other Drug Counseling

**3 hours lecture, 3 units
Grade Only**

Advisory: Alcohol and Other Drug Studies 150 and Alcohol and Other Drug Studies 154, each with a grade of “C” or better, or equivalent; English 101 with a grade of “C” or better, or equivalent.

This course is a study of the theory and practical application of case management skills and techniques in alcohol and other drug counseling. Emphasis is placed on preparing students to work effectively in substance use treatment. Topics include clinical evaluation, treatment planning, referral, service coordination, counseling, client and community education, documentation, and professional and ethical responsibilities for alcohol and other drug counselors. This course is intended for students in the Alcohol and Other Drug Studies program. The material presented in this course is clinical in nature and may not be suitable for the general population of students. (FT) AA/AS; CSU; C-ID ADS 170X.

157 Pharmacology of Psychoactive Drugs

**3 hours lecture, 3 units
Grade Only**

Advisory: Alcohol and Other Drug Studies 150 with a grade of “C” or better, or equivalent and English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Alcohol and Other Drug Studies 152.

This course is a study of the neurochemical, physical and mental effects of commonly used addictive psychoactive substances on the human biological system. Emphasis is placed on the basic pharmacology of psychoactive drugs, the medical consequences of substance use disorders, and therapeutic approaches for managing chemical dependency. This course is intended for students majoring in Alcohol and Other Drug Studies and all students interested in the physiology and pharmacology of psychoactive drugs. (FT) AA/AS; CSU; C-ID ADS 140X.

159 Co-Occurring Disorders in Alcohol and Other Drug Counseling

**3 hours lecture, 3 units
Grade Only**

Advisory: Alcohol and Other Drug Studies 150, Alcohol and Other Drug Studies 154, Psychology 101 and English 101, each with a grade of “C” or better, or equivalent.

This course is a study of co-occurring disorders, a condition which occurs when a person has a substance use disorder and a separate psychiatric diagnosis or other mental health-related symptoms or problems. Students learn the definitions and terms related to co-occurring disorders and the principles that guide systems of care for persons with co-occurring disorders. Emphasis is placed on identifying the most current, evidence-based practices for treating co-occurring disorders and applying screening, assessment, referral, and treatment protocols for persons with co-occurring disorders who enter substance use treatment facilities. Students demonstrate the skills necessary to apply for California state certification as an alcohol and drug counselor as they relate to treating co-occurring disorders and familiarity with the terminology, diagnoses, and treatment conditions of the mental health field. This course is intended for students in the Alcohol and Other Drug Studies program. Note that material presented in this course is clinical in nature and may not be suitable for the general population of students. (FT) AA/AS; CSU; C-ID ADS 190X.

160 Group Dynamics in Alcohol and Other Drug Counseling

**3 hours lecture, 3 units
Grade Only**

Prerequisite: Alcohol and Other Drug Studies 150 and Alcohol and Other Drug Studies 154, each with a grade of “C” or better, or equivalent.

Advisory: English 101 with a grade of “C” or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Alcohol and Other Drug Studies 159 and Psychology 161, each with a grade of “C” or better, or equivalent. This course is a study of the theory and application of group counseling approaches, methods and techniques related to substance use treatment. Emphasis is placed on the dynamics of small, interpersonal process group interaction. Students develop effective interpersonal communication skills and leadership skills from an interdisciplinary perspective. This course is intended for students

in the Alcohol and Other Drug Studies program. Note that material presented in this course is clinical in nature and may not be suitable for the general population of students. (FT) AA/AS; CSU; C-ID ADS 130X.

162 Internship Seminar: Alcohol and Other Drug Counseling

**3 hours lecture, 3 units
Grade Only**

Prerequisite: Alcohol and Other Drug Studies 150, Alcohol and Other Drug Studies 153, Alcohol and Other Drug Studies 154, Alcohol and Other Drug Studies 156, Alcohol and Other Drug Studies 160 and Psychology 161, each with a grade of “C” or better, or equivalent.

Corequisite: Alcohol and Other Drug Studies 164 or Alcohol and Other Drug Studies 270.

Advisory: Completion of or concurrent enrollment in Alcohol and Other Drug Studies 157 and Alcohol and Other Drug Studies 159, each with a grade of “C” or better, or equivalent.

This course is a study of substance use treatment with an emphasis on developing the skills and abilities of the student-as-intern alcohol and drug counselor. Emphasis is placed on supporting students enrolled in the Alcohol and Other Drug Counseling internship or work experience in substance use treatment. Throughout this course, students engage in critical analysis of their strengths and weaknesses as interns and as potential professionals in the field. Students must be accepted for an internship at an approved substance abuse treatment facility in order to participate in this course. This course is intended only for students in their final semester of the Alcohol and Other Drug Studies Program. (FT) AA/AS; CSU; C-ID ADS 210X.

164 Internship: Alcohol and Other Drug Counseling

**255 hours other, 5 units
Grade Only**

Prerequisite: Alcohol and Other Drug Studies 150, Alcohol and Other Drug Studies 153, Alcohol and Other Drug Studies 154, Alcohol and Other Drug

(FT) = A field trip may be required for this course.
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Milestone formerly referred to as Skill Level

Studies 156, and Alcohol and Other Drug Studies 160, and Psychology 161, each with a grade of "C" or better, or equivalent.

Corequisite: Alcohol and Other Drug Studies 162.

Advisory: Completion of or concurrent enrollment in Alcohol and Other Drug Studies 157, and Alcohol and Other Drug Studies 159, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Alcohol and Other Drug Studies 163.

This course provides students with a hands-on learning experience via a directed field study resulting from the cooperative effort of a provider agency, the instructor, and the student. Emphasis is placed on enabling the student intern to learn and experience the work of an alcohol and other drug counseling professional while receiving college credit. Students must be accepted for an internship at an approved substance use treatment facility. This course is intended only for students in their final semester of the Alcohol and Other Drug Studies Program. (FT) AA/AS; CSU; C-ID ADS 200X.

270 Work Experience in Chemical Dependency

**216 hours other, 4 units
Grade Only**

Prerequisite: Alcohol and Other Drug Studies 156, 160 and Psychology 161, each with a grade of "C" or better, or equivalent.

Corequisite: Alcohol and Other Drug Studies 162.

Advisory: Alcohol and Other Drug Studies 153, 157 and Psychology 245, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Must obtain a permission number from Work Experience Coordinator for enrollment.

This course provides students with a hands-on learning experience via the cooperative effort of the employer, the instructor and the student. Emphasis is placed on enabling the student who is employed or volunteering in chemical dependency work to receive college credit for achieving new, meaningful and measurable learning objectives related to as many interdisciplinary aspects of chemical dependency as possible. This course is intended for students only in their final semester of the Alcohol and Other Drug Studies Program. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

American Sign Language/ Interpreting (AMSL)

120 American Sign Language Level I

**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for American Sign Language/Interpreting 100 or American Sign Language/Interpreting 115.

This is an entry-level course designed to introduce students to American Sign Language (ASL) and Fingerspelled Signs as they are used within Deaf Culture. Students are taught to use ASL by signing, fingerspelled signing, and using facial grammar at the novice level. Emphasis is placed on the development of ASL expressive and receptive skills via applying their ASL skills through individualized program, small groups and large group environment. Students utilize interactive media to express their comprehension of basic ASL sentences and stories as well as their signing skills. Students have the opportunity to practice vocabulary and syntax. The course is designed for students who want to explore the basic language structure of ASL and Deaf Culture. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

121 American Sign Language Level II

**5 hours lecture, 5 units
Grade Only**

Prerequisite: American Sign Language/Interpreting 120 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for American Sign Language/Interpreting 101 or American Sign Language/Interpreting 116.

This course is a continuation of the study of American Sign Language (ASL) at the beginning intermediate level. Emphasis is placed on increasing development of students' receptive and expressive

skills through ASL vocabulary, fingerspelled signs and knowledge of Deaf Culture. Instruction includes a natural approach to teaching a second language by exposing students to authentic conversations in the classroom. Active learning provides students with the opportunity to apply their ASL skills through an individualized program, small groups and large group environment. Students utilize interactive media to express their comprehension of basic to intermediate ASL sentences and stories as well as to hone their signing skills. Activities are designed to provide students the opportunity to practice vocabulary and syntax at the intermediate level. This course is designed for students and/or professionals interested in working and interacting with Deaf people. (FT) AA/AS; CSU; UC.

150 Introduction to Deaf Culture

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for American Sign Language/Interpreting 104.

This course is an introduction to the unique aspects of Deaf Culture and Deaf community. Emphasis is placed on in-depth discussion of the beliefs and customs of this sociolinguistic/cultural minority in relation to language use and history of Deaf people in the United States of America. This course is intended for students who are interested in learning about Deaf Culture and the Deaf community. (FT) AA/AS; CSU; UC.

155 Implications of Deafness

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for American Sign Language/Interpreting 105.

This course is a study of the audiological, educational, social, and communicative aspects of people who are deaf and hearing impaired. Emphasis is placed on historical perspectives and current trends, philosophies, and ideologies related to deafness. This course is intended for students who are interested in learning about the pathological aspects of deaf and hearing impaired people. (FT) AA/AS; CSU; UC.

214 American Sign Language Fingerspelled Signs

**3 hours lecture, 3 units
Grade Only**

Prerequisite: American Sign Language/Interpreting 121 with a grade of "C" or better, or equivalent. This course is an intermediate-advanced study of American Sign Language Fingerspelled Signs and Numbering systems. Emphasis is placed on Native Fingerspelled Signs. Students participate in extensive drills expressively and receptively. This course is intended for American Sign Language (ASL) Studies and ASL-English Interpretation majors pursuing employment or a career in ASL and/or Deaf related fields. (FT) AA/AS; CSU.

220 American Sign Language Level III

**5 hours lecture, 5 units
Grade Only**

Prerequisite: American Sign Language/Interpreting 121 with a grade of "C" or better, or equivalent.

Advisory: American Sign Language/Interpreting 214 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for American Sign Language/Interpreting 200 or American Sign Language/Interpreting 215.

This third course in American Sign Language (ASL) is designed to enhance students' receptive and expressive skills at an advanced intermediate level. Emphasis is placed on the ASL syntax, facial grammar, vocabulary, and fingerspelling skills that enable students to participate in increasingly more complex conversations with Deaf community members. Instruction utilizes a natural approach to teaching a second language by engaging students in authentic conversations within the classroom environment. Conversational content seeks to develop student knowledge and understanding of the Deaf community and its art and history. Active learning provides students with the opportunity to apply their ASL skills through an individualized program. Students utilize interactive media to express their comprehension of intermediate to advanced ASL sentences and narratives as well as

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to hone their signing skills. Activities are designed to provide students the opportunity to practice vocabulary and syntax at the intermediate to advanced level. This course is designed for students and/or professionals interested in working and interacting with Deaf people. (FT) AA/AS; CSU; UC.

221 American Sign Language Level IV
5 hours lecture, 5 units
Grade Only

Prerequisite: American Sign Language/Interpreting 214 and American Sign Language/Interpreting 220, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for American Sign Language/Interpreting 216.

This fourth course in the study of American Sign Language (ASL) continues to build upon students' receptive and expressive skills at the advanced level while expanding their knowledge of Deaf Culture and the influences of other sign language systems. Emphasis is placed on advanced ASL Fingerspelled Signs, ASL structure and vocabulary. Instruction utilizes a natural approach to teaching a second language by engaging students in authentic conversations within the classroom environment. Active learning provides students with the opportunity to apply their American Sign Language (ASL) skills through an individualized program. Students utilize interactive media to express their comprehension of advanced ASL sentences and narratives as well as to hone their signing skills. Activities are designed to provide students the opportunity to practice vocabulary and syntax at the advanced level. This course is designed for students and/or professionals interested in working and/or interacting with Deaf people. (FT) AA/AS; CSU; UC.

225 Introduction to Linguistics of American Sign Language
3 hours lecture, 3 units
Grade Only

Corequisite: Completion of or concurrent enrollment in: American Sign Language/Interpreting 221 with a grade of "C" or better, or equivalent.

This course is designed to provide students with an analysis of the symbolic and linguistic structure of American Sign Language (ASL) and English including other spoken languages, other sign languages, and other related sign systems. Topics include phonology, morphology, syntax, semantics, pragmatics, grammar and discourse. This course examines the bilingual and bicultural practices,

language acquisition, sociolinguistics and related research. This course is intended for students who plan to transfer and/or are interested in learning about the linguistic aspects of American Sign Language. (FT) AA/AS; CSU.

Anthropology (ANTH)

102 Introduction to Biological Anthropology
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of human evolution, variation, and adaptation. Topics include the study of primates, human heredity, variability of modern populations, and fossil records of early hominins and hominoids. This course is intended for anthropology majors and all students interested in life and/or behavioral sciences. (FT) AA/AS; CSU; UC; C-ID ANTH 110.

103 Introduction to Cultural Anthropology
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of cultural anthropology using a comparative, cross-cultural approach. Emphasis is placed on the study of how various peoples around the world have adapted to their environments and developed behaviors to meet their biological, economic, psychological, social and political needs. This course is intended for anthropology majors and all students interested in life and/or behavioral sciences. (FT) AA/AS; CSU; UC; C-ID ANTH 120.

104 Laboratory in Biological Anthropology
3 hours lab, 1 unit
Letter Grade or Pass/No Pass Option

Corequisite: Completion of or concurrent enrollment in Anthropology 102 with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a practical study of biological anthropology. Students perform field and laboratory studies in genetics, human variation, human osteology, anthropometry, hominid/hominin evolution, comparative primate anatomy, primate behavior, and forensic anthropology. This course is intended for anthropology majors and all students

interested in life and/or behavioral sciences. (FT) AA/AS; CSU; UC.

106 World Prehistory

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course covers the development of human society from the earliest evidence of culture to the beginnings of recorded history. Prehistoric archaeological concepts, methods, and data are used to examine the major transitions in human prehistory, including the origins of culture, agriculture, and early civilization. This course is intended for anthropology majors or anyone interested in world prehistory. (FT) AA/AS; CSU; UC.

107 Introduction to Archaeology

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an introductory study of the history, methods, and theory of archaeology. Emphasis is placed on the techniques of archaeological data collection and analysis; cultural innovations, reconstruction, and interpretation of the past; and Cultural Resource Management (CRM) work. This course is intended for students planning to major in anthropology and/or continue the study of archaeology at a university. (FT) AA/AS; CSU; UC; C-ID ANTH 150.

110 Anthropology of Magic, Witchcraft, and Religion

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a survey of magic and religion as expressed through rituals, myths, and symbols in cross-cultural perspective. Emphasis is placed on the theoretical and methodological approaches to the study of magic, witchcraft, and religion. This course is intended for students majoring in anthropology and all other interested students. (FT) AA/AS; CSU; UC.

115 Introduction to Archaeological Field Work

**2 hours lecture, 6 hours lab, 4 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Anthropology 265: Introduction to Archaeological Field Work.

This course is an introduction to the basic techniques of archaeological field work. Emphasis is placed on site survey, site layout, excavation, artifact identification, laboratory analysis and report writing. Topics also include use of compass and transit, Global Positioning Systems (GPS) and Geographic Information Systems (GIS). This course is designed for Anthropology and Archaeology majors as well as students interested in prehistoric and/or historic research. (FT) AA/AS; CSU.

120 Archaeological Artifact Analysis

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a practical study of archaeological artifact analysis. Emphasis is placed on artifact typology and seriation methods used in the preparation of archaeological reports. Students learn the most current techniques for describing, classifying, cataloging and documenting archaeological materials. This course is designed for students majoring in anthropology with an emphasis in archaeology and for anyone interested in a career in the field of archaeology or employment in Cultural Resource Management (CRM). (FT) AA/AS; CSU.

130 Bones: Human Osteology

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course focuses on the study of the human skeleton. Emphasis is placed on two main aspects: identification of recently deceased individuals in

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a legal context, and historic or prehistoric skeletal remains as a contribution to human history. This hands-on course includes information on bone biology, growth and development, variation, and reconstruction. Students identify all parts of the skeletal system, measure bones, and identify non-metric features and stress markers. This course is designed for Anthropology majors or students interested in biology or physical anthropology. AA/AS; CSU; UC.

140 Primatology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to the study of non-human primates: prosimians, New World monkeys, Old World monkeys, and apes. The course focuses on primate behavior and how it relates to the study of human biocultural evolution. Of special concern are the relationships and adaptations of primates to varied environments. The primates at the San Diego Zoo are an integral part of the course. Various observational and data collecting techniques are employed in zoo projects. This course is designed for anthropology majors and/or students interested in anthropology, biology, or zoology. (FT) AA/AS; CSU; UC.

210 Introduction to the Indigenous People of California

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a comparative study of Indigenous Peoples who lived within the culture area known as California. Emphasis is placed on precontact cultures, the influence of European contact, and contemporary issues. This course is intended for anthropology students and anyone interested in the Indigenous Peoples of California. (FT) AA/AS; CSU; UC.

290 Independent Study

3–9 hours other, 1–3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of anthropology. It is not

intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

Arabic (ARAB)

101 First Course in Arabic

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

This course is an introduction to the sound and writing system of the Arabic language. The course also provides students with the basic structural and lexical knowledge to enable them to communicate orally and in writing in Arabic at a beginning level. Emphasis is placed on developing the students' ability to perform language functions in real-life situations through structured activities and grammatical exercises and on providing students with an overview of Arabic culture. This course is for all students interested in learning Arabic. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

102 Second Course in Arabic

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

Prerequisite: Arabic 101 with a grade of "C" or better, or equivalent.

This interactive course builds upon the structural and lexical base of the Arabic language to move students from a beginning to a beginning-intermediate communication level through the introduction of a variety of noun and verb forms including the present and past tenses. Emphasis is placed on developing the student's ability to perform language functions in real-life situations through structured activities and grammatical exercises and on providing students with an overview of Arabic history, customs and culture. This course is for students in their second semester of Arabic. (FT) AA/AS; CSU; UC.

201A Third Course in Arabic

5 hours lecture, 5 units

Grade Only

Prerequisite: Arabic 102 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Arabic 201. This course is an interactive study of Arabic at the intermediate level. Students use increasingly complex Arabic language structures and vocabulary to listen, speak, read and write at the intermediate level. This course is designed for all students interested in the Arabic language. (FT) AA/AS; CSU; UC.

Art – Fine Art (ARTF)

100 Art Orientation

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a survey of the visual arts. Emphasis is placed on the various aesthetic approaches, philosophies and artistic orientations around the world in historical and contemporary perspective. This course is intended for humanities majors and all students interested in art and/or art history. (FT) AA/AS; CSU; UC.

104 Artists and Designers Today

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an overview of current artist and designer practices. Students gain insight into art, design, and craft fields such as painting, sculpture, graphic design, interior design, industrial design, furniture, fibers, ceramics, metalwork, and multimedia. This course is designed for students beginning the study of art and/or related disciplines. (FT) AA/AS; CSU.

109 Modern Art

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: Art-Fine Art 110 and Art-Fine Art 111, each with a grade of “C” or better, or equivalent; English 101 with a grade of “C” or better, or equivalent. This course provides a survey of modern art and architecture examining theoretical and cultural influences on art from the 19th century to mid 20th century. The course is designed for students interested in modern art history, as well as for

art majors who are focusing on modern design, painting, sculpture or ceramics. (FT) AA/AS; CSU; UC.

110 Art History: Prehistoric to Gothic

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a survey of the visual arts in western civilization from prehistory through the Gothic period. Emphasis is placed on representative art and architecture from Mesopotamia, Iran, Egypt, the Aegean, Etruscan, Rome and Greece. This course is intended for art majors and all students interested in art history, the humanities and culture. (FT) AA/AS; CSU; UC.

111 Art History: Renaissance to Modern

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a survey of the visual arts in western civilization from the Renaissance to the Modern era. Emphasis is placed on representative art and architecture from the Renaissance, Mannerism, Baroque, Rococo, Neo-Classicism, Romanticism, Impressionism, Post-Impressionism, and Modernism eras. This course is intended for art majors and all students interested in art history, the humanities, and culture. (FT) AA/AS; CSU; UC; C-ID ARTH 120.

115 African Art

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a survey of the history of African art. Emphasis is placed on the distinct history, cultural aesthetics, styles and iconography of various African cultures from prehistoric times to present day. This course is designed for all students interested in art, art history and the humanities. (FT) AA/AS; CSU; UC.

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125 Art History: Arts of the Asian Continent
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course provides a survey of paintings, sculpture, architecture, and associated fine arts from India, China, Japan, Korea, Southeast Asia, and other countries throughout the Asian continent. It emphasizes the social, religious, and political highlights of each culture and their effects on art forms from prehistoric to modern times. This course is designed not only for art students, but also for those who are interested in history, religion, philosophy, humanities, and cultural enrichment. (FT) AA/AS; CSU; UC; C-ID ARTH 130.

150A Two-Dimensional Design
1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an introduction to two-dimensional space and form. Emphasis is placed on ways of organizing visual space into vivid and coherent images. This course is designed for students beginning a study of art and/or related disciplines. (FT) AA/AS; CSU; UC; C-ID ARTS 100.

151 Three-Dimensional Design
1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Art-Fine Art 150A with a grade of “C” or better, or equivalent.

This course is an introduction to three-dimensional space and form. Emphasis is placed on organizing visual space into valid and coherent structures. This course is designed for students beginning the study of art and/or related disciplines. (FT) AA/AS; CSU; UC; C-ID ARTS 101.

155A Freehand Drawing I
1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This is an introductory course designed to develop the student’s ability to perceive and translate visual relationships from 3-dimensional (3-D) space into 2-dimensional (2-D) drawings. Emphasis is placed

on the use of art theory, basic art elements and compositional strategies to create pictorial space and compose original images based on observation. This course is intended for art majors and all students interested in learning freehand drawing whether or not they have previous art experience. (FT) AA/AS; CSU; UC; C-ID ARTS 110.

155B Freehand Drawing II
1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Art-Fine Art 155A with a grade of “C” or better, or equivalent.

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an intermediate course in which students apply art principles and theory to create solutions to particular problems of graphic representation and expression. Emphasis is placed on visual analysis and inquiry in creating pictorial space and applying drawing media. Students are introduced to the use of interdisciplinary art forms and image making and explore New Genres as a means of continued intellectual and artistic development. This course is intended for art and graphic art students. (FT) AA/AS; CSU; UC; C-ID ARTS 205.

156A Drawing for Animation
2 hours lecture, 4 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an introduction to drawing and design for animation. Emphasis is placed on the principles of motion, storytelling and conceptual development. This course is designed for students beginning the study of art and/or related disciplines. (FT) AA/AS; CSU.

165A Composition in Painting I
1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Art-Fine Art 155A with a grade of “C” or better, or equivalent.

Advisory: Art-Fine Art 150A and Art-Fine Art 152, each with a grade of “C” or better, or equivalent; English 101 with a grade of “C” or better, or equivalent.

This course is an introduction to oil and acrylic painting methods and techniques. Emphasis is placed on composition, color, and application of general design principles. A variety of subject matter, such as still-life, landscape, portrait and

non-objective subjects, and a variety of stylistic approaches such as cubism, collage, realism and expressionism are explored. This course is designed to develop students' creative abilities and critical thinking in visual terms. This course is intended for students majoring in Art and those who wish to improve their artistic skills. (FT) AA/AS; CSU; UC; C-ID ARTS 210.

165B Composition in Painting II

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 165A with a grade of "C" or better, or equivalent.

This course is the second semester of introduction to oil and acrylic painting methods and techniques. Emphasis is placed on the concepts of pictorial space, composition, and color. The course is designed to further develop students' creative abilities and critical thinking through the construction of images designed to address specific pictorial problems and goals. This course is intended for students majoring in Art and those who wish to improve their artistic skills. (FT) AA/AS; CSU; UC.

165C Composition in Painting III

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 165B with a grade of "C" or better, or equivalent.

This course is the third semester of introduction to oil and acrylic painting methods and techniques. Emphasis is placed on composition, color, and application of general design principles at a more advanced level of creativity and sophistication. This course is designed to develop students' creative abilities and critical thinking in visual terms through the use of individual assignments tailored to students' skills. This course is intended for students majoring in Art and those who wish to improve their artistic skills. (FT) AA/AS; CSU; UC.

165D Composition in Painting IV

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 165C with a grade of "C" or better, or equivalent.

This course is the fourth and final semester of introduction to oil and acrylic painting methods and techniques. Emphasis is placed on contemporary methods and theories related to conceptualism and new genre. Students produce large format and mural scale paintings. This course is designed

to develop students' creative abilities and critical thinking in visual terms through the use of individual assignments tailored to students' skills. This course is intended for students majoring in Art and those who wish to improve their artistic skills. (FT) AA/AS; CSU; UC.

170A Contemporary Crafts I

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 and Art-Fine Art 150A, each with a grade of "C" or better, or equivalent.

This course teaches students techniques, methods, and processes to produce a variety of crafts. Students develop projects using various media including ceramics, wood, fibers, glass, plastic, and metal. Students explore design principles, expressive quality, and individual ideas. This course is intended for students pursuing careers or future studies in Studio Arts, Applied Design, or Industrial Arts. (FT) AA/AS; CSU; C-ID ARTS 280.

170B Contemporary Crafts II

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 170A with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course continues the study of various crafts media at an intermediate level. Emphasis is placed on individual exploration and expression. This course is intended for students pursuing careers or future studies in Studio Art, Applied Design, or Industrial Design. (FT) AA/AS; CSU.

170C Contemporary Crafts III

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 170B with a grade of "C" or better, or equivalent.

This course continues the study of various crafts media at an advanced level. Emphasis is placed on structured development of media and preparation of work for public exhibition. This course is intended for students pursuing careers or future studies in

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Milestone formerly referred to as Skill Level

Studio Art, Applied Design, or Industrial Design. (FT) AA/AS; CSU.

174A Book Arts I

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Art-Fine Art 150A or Design 100, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 174A.

This is an introductory level book arts course. Emphasis is placed on the fundamental techniques and principles of constructing hand-made books. Topics include book arts terminology, materials, techniques, basic book structures, and worldwide books. Students develop content in the form of image and text for a hand-crafted book. This course is intended for graphic design students, fine art students, interaction design students, and anyone interested in the art and design of hand-crafted books. (FT) AA/AS; CSU, UC.

175A Sculpture I

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Art-Fine Art 150A with a grade of “C” or better, or equivalent.

This course is an introduction to sculptural materials, processes, forms, contexts and content. Emphasis is placed on the basic forms and cultural functions of sculpture (past and present). Students produce sculptural artworks under direct guidance of the instructor. This course is intended for students majoring in art and for all students interested in producing three-dimensional art. (FT) AA/AS; CSU; UC.

175B Sculpture II

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Art-Fine Art 175A with a grade of “C” or better, or equivalent.

This course is an intermediate level course in sculptural materials, processes, forms, context and content. Emphasis is placed on articulation of sculptural goals and experimentation with materials and methods. Students plan and produce sculptural artworks based on original concepts. This course is intended for art majors and for all students interested in working in three-dimensional art. (FT) AA/AS; CSU; UC.

175C Sculpture III

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Art-Fine Art 175B with a grade of “C” or better, or equivalent.

This course is an advanced study in sculptural materials, processes, context and content. Emphasis is placed on the refinement of conceptual skills in their selection and pursuit of sculptural goals. Students experiment with advanced-level concepts and materials to create original sculptural artworks, including large scale pieces. This course is intended for art majors and for all students interested in working in three-dimensional art. (FT) AA/AS; CSU; UC.

179A Figurative Ceramic Sculpture I

**2 hours lecture, 4 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an introduction to ceramic figurative sculpture. Emphasis is placed on representational and expressive forms and learning various techniques of building with clay. This course is designed for students beginning the study of art and/or related disciplines. (FT) AA/AS; CSU.

195A Ceramics I

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an introductory level ceramics course in which students design and construct hand-built and wheel-thrown ceramic objects. This course is designed for art majors and all students interested in developing ceramic skills. (FT) AA/AS; CSU; UC.

195B Ceramics II

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 195A with a grade of “C” or better, or equivalent.

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an intermediate level ceramics course in which students design and construct wheel thrown and hand-built ceramic objects. Emphasis is placed on form and surface enrichment. This course is designed for art majors and for students interested in developing ceramic skills. (FT) AA/AS; CSU; UC.

195C Ceramics III**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 195B with a grade of “C” or better, or equivalent.

This is an advanced-level ceramics course in which students design and construct wheel-thrown and handbuilt ceramic forms. Students select an area of focus emphasizing form and surface enrichment. Students develop, mix, and use clay and glazes, as well as load and fire both gas and electric kilns. This course is intended for art majors and all students interested in developing ceramics skills. (FT) AA/AS; CSU; UC.

196 Clay and Glaze Technology**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 195A with a grade of “C” or better, or equivalent.

Advisory: Art-Fine Art 195B with a grade of “C” or better, or equivalent.

This course is a study of advanced techniques in clay and glaze formulation, mixing, and testing. Emphasis is placed on the physical and chemical nature of ceramic materials and how they affect glaze fired surface results. This course is intended for students majoring in art and anyone interested in ceramics. (FT) AA/AS; CSU; UC.

197A Handbuilding Ceramics I**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 195A with a grade of “C” or better, or equivalent.

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course provides instruction in the design and construction of handbuilt ceramic forms. Students create ceramic objects emphasizing form and surface enrichment, while gaining experience applying glazes and loading kilns. This course is designed for art majors and for students interested in developing ceramic skills. (FT) AA/AS; CSU; UC.

197B Handbuilding Ceramics II**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 197A with a grade of “C” or better, or equivalent.

This is an advanced level ceramics course in which students design and construct hand-built ceramic forms. Emphasis is placed on form and surface

enrichment, weighing, mixing and use of glazes, and loading and firing electric kilns. This course is designed for art majors and for students interested in developing ceramic skills. (FT) AA/AS; CSU; UC.

198A Introduction to Printmaking I**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent; Art-Fine Art 150A, and Art-Fine Art 155A, each with a grade of “C” or better, or equivalent.

This course is an introduction to the basic printmaking media of intaglio, relief, and monoprinting. Emphasis is placed on the techniques for creating and printing plates. Students investigate papers, select for properties, analyze aesthetic strategies for image making, and practice the principles of editioning and print conservation. This course is designed for art majors and all students interested in printmaking. (FT) AA/AS; CSU; UC.

202A Public Art I**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Art-Fine Art 150A and Art-Fine Art 151, each with a grade of “C” or better, or equivalent.

Advisory: Completion of or concurrent enrollment in English 101 with a grade of “C” or better, or equivalent.

This is the first in a series of courses in public art. This course explores the study and practice of art for public spaces. Topics include historical and contemporary examples of public art as well as constructing a series of maquettes. Emphasis is placed on identifying projects, planning a piece, and creating proposals for submission. This course is intended for art majors and those interested in the study and creation of art in the public sphere. (FT) AA/AS; CSU.

202B Public Art II**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 202A with a grade of “C” or better, or equivalent. This is the second in a series of courses in public art. This course explores

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the study and practice of art for public spaces. Topics include a deeper analysis of public art in a historical and contemporary context as well as the multi-layered processes of constructing a public art piece. Emphasis is placed on appropriate business procedures, the submission process, and the construction of a public art piece. This course is intended for art majors and those interested in the study and creation of art in the public sphere. (FT) AA/AS; CSU.

205A Installation, Performance, and New Genres

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Art-Fine Art 175A with a grade of “C” or better, or equivalent.

This course is an introduction to concept-based New Genres art practices. Emphasis is placed on the intersection of form/medium and concept as well as on the role of art in contemporary culture. Students develop concepts based on issues related to social commentary, political action, institutional critique, community involvement, and personal identity and experiment with forms, such as installation, performance, technological, hybrid, and emerging art forms. This course is designed for art majors and anyone interested in contemporary art practices. (FT) AA/AS; CSU; UC.

206 Art Entrepreneurship

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an overview of current business and marketing practices related to being an artist. Students gain promotional and presentation skills and develop a business plan. This course is intended for students interested in art and creating a small art business. (FT) AA/AS; CSU.

207A Industrial and Architectural Ceramic Design I

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101, Art-Fine Art 150A, and Art-Fine Art 195A, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Fine Art 207. This course is the first course in a sequence of contemporary industrial and architectural ceramic

design. Emphasis is placed on creating beginning-level multiples in production and architectural ceramics. Student produce designs suitable for basic mold making and casting to produce multiples. This course is designed for students interested in industrial design, public arts, and creating a small business. (FT) AA/AS; CSU.

207B Industrial and Architectural Ceramic Design II

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 207A with a grade of “C” or better, or equivalent.

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is the second course in a sequence of contemporary industrial and architectural ceramic design. Students produce designs suitable for more complex mold making and casting to produce multiples. Students also create architectural designs for installation, connect multiple parts from molds, and design using multi-piece molds. This course is designed for students interested in industrial design, public arts, and creating a small business. (FT) AA/AS; CSU.

208A Ceramic Production I

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Art-Fine Art 195A, Art-Fine Art 195B or Art-Fine Art 195C, each with a grade of “C” or better, or equivalent.

This is the first in a series of courses in the art of ceramic production. This course explores the study and practice of art for ceramic production. Topics include historical, contemporary, and utilitarian examples of ceramic production as well as constructing a sense of material use and business practices. Emphasis is placed on planning bodies of work, the creation of multiples, and marketing practices. This course is intended for art majors and those interested in the study and creation of utilitarian ceramic art and design. (FT) AA/AS; CSU.

208B Ceramic Production II

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Art-Fine Art 208A with a grade of “C” or better, or equivalent.

Advisory: English 101 with a grade of “C” or better, or equivalent.

This is the second in a series of courses in the art of ceramic production. This course explores the study and practice of art for ceramic production. Topics include a deeper analysis of historical, contemporary, and utilitarian examples of ceramic production as well as additional practice with materials, business management, industrial methods, and technical skills. Emphasis is placed on planning bodies of work, the creation of multiples, and understanding the business of material use and electrical energy. This course is intended for art majors and those interested in the study and creation of ceramic art in the production sphere. (FT) AA/AS; CSU.

210A Life Drawing I

1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Art-Fine Art 155A with a grade of “C” or better, or equivalent.

Advisory: Art-Fine Art 150A, and English 101, each with a grade of “C” or better, or equivalent.

This is a basic course in drawing the human form as a sequence of studies from live models. Accurate and expressive translations of the mass as two-dimensional drawings are refined in a variety of achromatic media. This course is designed for students who are majoring in fine art and is also a relevant foundation for those that are interested in disciplines that use the human form, such as animation and fashion design. (FT) AA/AS; CSU; UC; C-ID ARTS 200.

210B Life Drawing II

1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Prerequisite: Art-Fine Art 210A with a grade of “C” or better, or equivalent.

Advisory: Art-Fine Art 150A and English 101, each with a grade of “C” or better, or equivalent.

This is an intermediate course in drawing the human form as a sequence of studies from live models. Students work with color and experiment with concepts related to figure drawing. This course is designed for students who are majoring in fine art and is also a relevant foundation for study in disciplines that use the human form, such as animation and fashion design. (FT) AA/AS; CSU; UC.

210C Life Drawing III

1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Art-Fine Art 210B with a grade of “C” or better, or equivalent.

This is an advanced course in drawing the human form as a sequence of studies from live models. Students work closely with the instructor to develop, create and present original artwork. This course is designed for students who are majoring in fine art. (FT) AA/AS; CSU; UC.

212 Sustainable Art and Design

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course provides a survey of sustainable art and design examining its effects on policies, culture, and practices from the late 20th century to the present. Topics include social justice and engagement, ecological and environmental health restoration, regenerative practices, material ecology, and economic shifts. Emphasis is placed on compassionate awareness, climate optimism, cultural perspectives, and historical and contemporary practices. This course is intended for art, design, architecture, and engineering majors. (FT) AA/AS; CSU; UC.

260 Studio Art Studies

1.5 hours lecture, 4.5 hours lab, 3 units

Letter Grade or Pass/No Pass Option

Advisory: Art-Fine Art 155B, Art-Fine Art 165D, Art-Fine Art 175C, Art-Fine Art 197B, Art-Fine Art 198C, Art-Fine Art 200 or Art-Fine Art 232, each with a grade of “C” or better, or equivalent.

This course is intended for advanced art students. Students enrolled in this course work closely with the instructor to develop a transfer portfolio, artist statement, curatorial concept and/or resume exhibition list. (FT) AA/AS; CSU.

270 Work Experience

54–216 hours other, 1–4 units
Grade Only

Limitation on Enrollment: Must obtain a permission number from Work Experience Coordinator for enrollment.

This course provides on-the-job learning experiences for students employed in an art-

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related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring or interested in the field of fine art. (FT) AA/AS; CSU.

280A 2-Dimensional Art Studio Lab

**3 hours lab, 1 unit
Pass/No Pass**

Corequisite: Art-Fine Art 150A, Art-Fine Art 152, Art-Fine Art 155A, Art-Fine Art 155B, Art-Fine Art 165A, Art-Fine Art 165B, Art-Fine Art 165C, Art-Fine Art 165D, Art-Fine Art 174A, Art-Fine Art 198A, Art-Fine Art 198B, Art-Fine Art 198C, Art-Fine Art 210A, Art-Fine Art 210B or Art-Fine Art 210C.

This course is a supervised studio laboratory in 2-dimensional media. Emphasis is placed on technical refinement of personal drawing and painting skills. This course is designed for fine art majors. (FT) AA/AS; CSU.

280B 3-Dimensional Art Studio Lab

**3 hours lab, 1 unit
Pass/No Pass**

Corequisite: Art-Fine Art 151, Art-Fine Art 175A, Art-Fine Art 205A, Art-Fine Art 220A, Art-Fine Art 220B or Art-Fine Art 220C.

This course is a supervised studio laboratory in 3-dimensional media. Emphasis is placed on technical refinement of fabrication skills specific to the various media explorations presented in the accompanying courses. This course is designed for fine art majors. AA/AS; CSU.

280C Ceramics Studio Lab

**3 hours lab, 1 unit
Pass/No Pass**

Corequisite: Art-Fine Art 195A, Art-Fine Art 195B, Art-Fine Art 197A or Art-Fine Art 197B.

This course is a supervised studio laboratory in ceramics. Emphasis is placed on technical refinement of personal ceramic skills. This course is designed for fine arts majors. Students must demonstrate increased proficiency with each repetition. AA/AS; CSU.

290 Independent Study

3–9 hours other, 1-3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is designed for students who wish to conduct additional research, a special project, or learning activities in the field of art/fine art. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Astronomy (ASTR)

101 Descriptive Astronomy

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is an introductory survey of contemporary astronomy. Topics covered include the solar system, stars and stellar evolution, the Milky Way galaxy and cosmology. This course is intended for students with a general interest in astronomy. (FT) AA/AS; CSU; UC.

102 Exploring The Solar System And Life Beyond The Earth

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course investigates the origin of our Solar System and how its contents changed with time. Analysis of the physical properties of planets, moons, rings, comets, asteroids are explored. This course surveys the history of space exploration and recent discoveries of exoplanets. Additionally, it explores potential for life elsewhere in Solar System and beyond. Challenges of space travel are also examined. This course is designed for students interested in exploring Astronomy. (FT) AA/AS; CSU;

UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

109 Practice in Observing

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Corequisite: Completion of or concurrent enrollment in Astronomy 101 or Astronomy 102, each with a grade of "C" or better, or equivalent.

This is a laboratory field experience course in general astronomy. Emphasis is placed on the constellations, celestial cycle interpretation, and descriptive observations of astronomical objects and events with and without the use of telescopes. This course is for all students interested in field experience in general astronomy. (FT) AA/AS; CSU; UC.

111 Astronomy Laboratory

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Corequisite: Completion of or concurrent enrollment in Astronomy 101 or Astronomy 102, each with a grade of "C" or better, or equivalent.

This laboratory course features exercises and experiments covering the range of topics in astronomy. The course deals with the foundations of astronomy, and may include telescopes, planetary astronomy, stellar astronomy and galactic astronomy. Indoor exercises may involve computer simulations. Outdoor exercises may be required. This course is designed for students interested in astronomy. (FT) AA/AS; CSU; UC.

290 Independent Study

3–9 hours other, 1–3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of astronomy. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience

(270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Biology (BIOL)

48 Pre-biology and Study Skills

4–6 hours lecture, 12–18 hours lab, 0.5 units

Pass/No Pass

Limitation on Enrollment: This course is not open to students with previous credit for Biology 107 or Biology 210A.

This course covers fundamental concepts and skills for success in introductory biology courses. Topics include language and terms for comprehending biology textbooks; mathematical concepts and units of measurement; chemistry concepts; the process of science; basic biologic themes; and effective habits of self-awareness and effective learning. This course is intended for students who plan to enroll in general or introductory biology and have not previously taken high school biology and/or chemistry; students who have previously taken biology and need to refresh and review basic concepts and skills; or students who have unsuccessfully attempted general or introductory biology and wish to review prior to re-enrolling. (FT) Not applicable to the Associate Degree.

101 Issues in Environmental Science & Sustainability

3 hours lecture, 3 hours lab, 4 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Biology 100. This is a course in contemporary issues in environmental science and sustainability. Topics include basic ecological principles; biological, chemical, and physical ecosystem dynamics; biodiversity; human population dynamics; human resource management; and pollution. These are

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viewed within the context of their environmental, economic, and social settings. Issues are examined utilizing the process of scientific inquiry. The laboratory is coordinated with lectures, and emphasizes the environmental issues of Southern California. This course is intended for students majoring in sustainability, business and peace studies, as well as all students interested in environmental science. (FT) AA/AS; CSU; UC.

107 General Biology – Lecture and Laboratory

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Biology 105 and Biology 106, Biology 210A, or Biology 210B. This course is an examination of living organisms and their environment. The lecture and laboratory are intended for students in the Allied Health Track or students majoring in Education or related areas. Topics include the fundamental chemical and physical processes common to all living organisms, the interactions between organisms and their environment, classical and molecular genetics, metabolism, plant and animal anatomy and physiology, animal behavior, evolution, cellular and molecular biology, and the experimental and cognitive processes used to examine these fields. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

111 Cancer Biology

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Biology 123. This is an introductory course that examines the basic biology of cancer and the approaches currently taken in cancer treatment. Basic principles of cell biology and genetics are explored to unravel the mechanisms of cancer development and the development of effective cancer therapeutics and preventative measures. The course emphasizes the process of scientific inquiry to illustrate how cancer biologists gather and analyze data in order to better understand and treat this disease, estimated to be the number two killer in the US. The course is intended for all that want to learn about the types of cancer, causes of cancer, treatments of cancer, and the social impact of this disease on patients, families, and society. (FT) AA/AS; CSU; UC.

130 Human Heredity

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent. This course introduces students to the concepts and applications of human heredity. It deals with both classical Mendelian genetics and modern molecular genetics. Topics include gamete formation, human karyotypes, genetic crosses, sex-linked inheritance, structure and function of DNA and RNA, gene expression, transcription and translation, genetic engineering, and population genetics. This course is designed for students interested in biology and human heredity. (FT) AA/AS; CSU; UC.

161 Introduction to Research

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is designed for Science, Technology, Engineering, and Math (STEM) students participating in the STEM Pathways program. Emphasis is placed on selecting a research project, formulating questions and hypotheses, and designing appropriate experimental approaches. Topics include an introduction to experimental design, data analysis, and scientific communication. (FT) AA/AS; CSU.

180 Plants and People

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent. This is an introductory course that examines the interdependence of humans and plants. This course is intended for all that want to learn about the uses of plants, especially those students with an interest in biology, anthropology, environmental sciences, and/or agriculture. Emphasis is on plant ecology as well as the basic biology of plant groups that provide us with food, medicine, recreation, decoration, and material goods, as well as those that produce stimulating, intoxicating, or harmful effects. Basic principles of taxonomy, cell structure, plant physiology, plant anatomy, ecology, and genetics are explored as they relate to these plants. Current environmental and economic issues and the role of molecular genetics in future plant development and the importance of genetic diversity are also examined. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

205 General Microbiology**3 hours lecture, 6 hours lab, 5 units
Grade Only**

Prerequisite: Biology 107 or Biology 210A, Chemistry 100 and Chemistry 100L or Chemistry 103, or Chemistry 152 and Chemistry 152L, each with a grade of "C" or better, or equivalent.

This introductory course covers fundamental aspects of microbiology including taxonomy, structure, physiology, reproduction, genetics, control, immunology, diversity, and host-symbiont relationships. Lab work emphasizes basic techniques for culturing, staining, counting, and identifying microorganisms. This course is intended for students pursuing careers in allied health fields and may meet entry requirements for these allied health fields. (FT) AA/AS; CSU; UC.

210A Introduction to the Biological Sciences I**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Prerequisite: Chemistry 152 and Chemistry 152L, each with a grade of "C" or better, or equivalent, and successful completion of Intermediate Algebra with a "C" or better or appropriate placement based on California title 5 regulations. All prerequisites must be completed within five years of enrollment in Biology 210A.

Advisory: English 101 with a grade of "C" or better, or equivalent.

Advisory: Concurrent enrollment in Chemistry 200 and Chemistry 200L.

This course covers biological chemistry, cell structure and function, cellular metabolism, classical and molecular genetics, and the molecular basis of evolutionary biology. This is the first semester of a two-semester sequence designed for biological science and pre-professional majors. (FT) AA/AS; CSU; UC.

210B Introduction to the Biological Sciences II**3 hours lecture, 3 hours lab, 4 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Biology 210A with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course covers the three domains of life, including the phylogenetic relationships of major groups of organisms. Topics include adaptive radiation, anatomy, physiology, development,

behavior, and ecology. This is the second semester of a two-semester sequence designed for biological science and pre-professional majors. (FT) AA/AS; CSU; UC; C-ID BIOL 140.

230 Human Anatomy**2 hours lecture, 6 hours lab, 4 units
Grade Only**

Prerequisite: Biology 107, Biology 160, or Biology 210A, each with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a systems approach to the study of human body structure from the microscopic level of organization to the gross level. Students relate body structures to their functions by studying histological slides and photomicrographs, anatomical models and charts, and mammalian dissection, which may include using prosected cadavers for studying and testing. This course is intended for students majoring in nursing, allied health (e.g. physical therapy, occupational therapy, chiropractic, etc.), psychology, athletic training, physical education, and biology, or those who wish to extend their knowledge of the human body beyond the scope of introductory biology. (FT) AA/AS; CSU; UC; C-ID BIOL 110B.

231 Media Experiences in Human Anatomy**1 hour lecture, 1 unit
Pass/No Pass**

Corequisite: Biology 230.

This course is self-paced study of anatomy through the use of computer software, microscope slides, anatomical models, and graphics. It is intended to meet the requirements of students in the fields of nursing, physical therapy, recreational therapy, occupational therapy, athletic training, chiropractic, psychology, physical education, and biology or those who wish to extend their knowledge of the human body beyond the scope of introductory biology. AA/AS; CSU.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

232 Experience in Human Dissection**3 hours lab, 1 unit****Letter Grade or Pass/No Pass Option**

Prerequisite: Biology 230 with a grade of "C" or better, or equivalent.

Advisory: BIOL 230 completed within five years of enrollment in Biology 232. Preregistration counseling with instructor is highly recommended.

This course provides a supervised study and actual experience in human dissection. Topics include dissection techniques and human anatomy. This course is intended for students pursuing careers in nursing, medicine, and other allied health professions. (FT) AA/AS; CSU.

235 Human Physiology**3 hours lecture, 3 hours lab, 4 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Biology 107 or Biology 210A, each with a grade of "C" or better, or equivalent.

Advisory: Biology 230, Chemistry 100, and Chemistry 100L, each with a grade of "C" or better, or equivalent.

This course is an introductory study of human body functions. Emphasis is placed on the nervous, endocrine, muscular, cardiovascular, immune, digestive, respiratory, urinary and reproductive systems. The laboratory component focuses on investigating and applying the scientific method to the understanding the function of bodily systems. This course is intended for students majoring in nursing, allied health, psychology, biology and physical education. (FT) AA/AS; CSU; UC; C-ID BIOL 120B.

290 Independent Study**3–9 hours other, 1-3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is designed for students who wish to conduct additional research, a special project, or learning activities in the field of biology. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265),

Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

**Black Contractor's Association Studies
(BCAS)**

80 Construction Safety**3.5 hours lecture, 3 units****Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 300.

This course reviews procedures and applications of general construction safety. Emphasis is placed on identifying basic project procedures, and applying procedural knowledge and performance standards to construction safety regulations. This course is intended for students interested in the construction trade. (FT) AA/AS.

81 Construction Mathematics I**3.5 hours lecture, 3 units****Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 302.

The course provides students with a basic comprehension of mathematical functions, as they relate to the construction trade. Emphasis is placed on performing addition, subtraction, multiplication and division calculations involving whole numbers, fractions, decimals, percentages, and conversion of fractions and decimals from one type of unit to the other. This course is intended for students interested in the construction trade. (FT)AA/AS.

82 Construction Mathematics II**3.5 hours lecture, 3 units****Grade Only**

Prerequisite: Black Contractor's Association Studies 81 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 303.

The course provides students with application of advanced mathematical functions. Emphasis is placed on applying advanced construction mathematical computations including standard units of measure, conversion of measurement from

one type of unit to another (US Standard/Metric), and calculations of squares and square roots used in layouts, as they relate to building construction. This course is intended for students interested in the construction trade. (FT) AA/AS.

83 Construction Blueprint Reading I 3.5 hours lecture, 3 units Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 307.

The course provides students with basic project procedure, and applications on different types of basic blueprints. Emphasis is placed on developing a working knowledge of construction principles, basic blueprint reading, and related trade mathematics. This course is intended for students interested in the construction trade. (FT) AA/AS.

84 Construction Blueprint Reading II 3.5 hours lecture, 3 units Grade Only

Prerequisite: Black Contractor's Association Studies 83 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 308.

The course provides students with advanced reading of construction blueprints and specifications for commercial and industrial construction. Emphasis is placed on analyzing measurements, blueprint symbolism and building material specifications relating to construction. This course is intended for students interested in the construction trade. (FT) AA/AS.

85 Carpenter Apprentice I 3.5 hours lecture, 3 units Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 310.

This course is an introduction to the carpentry trade. Emphasis is placed on identifying and selecting lumber, and engineered lumber products and panels, choosing appropriate fasteners, and safely using all hand tools, portable power tools, and stationary power tools on the job site. This course is intended for students interested in the carpentry trade. (FT) AA/AS.

86 Carpenter Apprentice II 3.5 hours lecture, 3 units Grade Only

Prerequisite: Black Contractor's Association Studies 85 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 312.

This is an intermediate carpentry course covering blueprints and building codes, building layout, and concrete form construction. Emphasis is placed on reading and interpreting blueprints and floor plans, understanding building codes, choosing appropriate layout tools, and building concrete forms. This course is intended for students interested in the carpentry trade. (FT) AA/AS.

87 Carpenter Apprentice III 3.5 hours lecture, 3 units Grade Only

Prerequisite: Black Contractor's Association Studies 86 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 314.

This is a high-intermediate level carpentry course covering roof and stairway framing, insulation, windows, and exterior doors. Emphasis is placed on layout and framing common roof structures, interior stairs, correctly selecting and installing insulation and vapor barriers, and selecting and properly installing windows, exterior doors, and hardware. This course is intended for students interested in the carpentry trade. (FT) AA/AS.

88 Carpenter Apprentice IV 3.5 hours lecture, 3 units Grade Only

Prerequisite: Black Contractor's Association Studies 87 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Black Contractor's Association Studies 316

This is an advanced carpentry course covering exterior and interior finish work. Emphasis is placed on the description, layout, and installation of interior

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
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UC = University of California Applicable
Milestone formerly referred to as Skill Level

and exterior wall coverings, decks, doors, stairs, and flooring material. This course is intended for students interested in the carpentry trade. (FT) AA/AS.

300 Construction Safety

**3.5 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 80.

This course reviews procedures and applications of general construction safety. Emphasis is placed on identifying basic project procedures, and applying procedural knowledge and performance standards to construction safety regulations. This course is intended for students enrolled in the construction apprentice program. (FT) AA/AS.

302 Construction Mathematics I

**3.5 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 81.

The course provides apprentices with a basic comprehension of mathematical functions, as they relate to the construction trade. Emphasis is placed on performing addition, subtraction, multiplication and division calculations involving whole numbers, fractions, decimals, percentages, and conversion of fractions and decimals from one type of unit to the other. This course is intended for students enrolled in the construction apprentice program. (FT) AA/AS.

303 Construction Mathematics II

**3.5 hours lecture, 3 units
Grade Only**

Prerequisite: Black Contractor's Association Studies 302 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 82.

The course provides apprentices with application of advanced mathematical functions. Emphasis is placed on applying advanced construction mathematical computations including standard units of measure, conversion of measurement from one type of unit to another (US Standard/Metric), and calculations of squares and square roots used in layouts, as they relate to building construction. This course is intended for students enrolled in the construction apprentice program.(FT) AA/AS.

307 Construction Blueprint Reading I

**3.5 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 83.

The course provides apprentices with basic project procedure, and applications on different types of basic blueprints. Emphasis is placed on demonstrating a working knowledge of construction principles, basic blueprint reading, and related trade mathematics. This course is intended for students enrolled in the construction apprentice program. (FT) AA/AS.

308 Construction Blueprint Reading II

**3.5 hours lecture, 3 units
Grade Only**

Prerequisite: Black Contractor's Association Studies 307 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 84.

The course provides apprentices with advanced reading of construction blueprints and specifications for commercial and industrial construction. Emphasis is placed on analyzing measurements, blueprint symbolism and building material specifications relating to construction. This course is intended for students enrolled in the construction apprentice program. (FT) AA/AS.

310 Carpenter Apprentice I**3.5 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 85.

This course is an introduction to the carpentry trade. Emphasis is placed on identifying and selecting lumber, and engineered lumber products and panels, choosing appropriate fasteners, and safely using all hand tools, portable power tools, and stationary power tools on the job site. This course is intended for students enrolled in the carpenter apprentice program. (FT) AA/AS.

312 Carpenter Apprentice II**3.5 hours lecture, 3 units
Grade Only**

Prerequisite: Black Contractor's Association Studies 310 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 86.

This is an intermediate carpentry course covering blueprints and building codes, building layout, and concrete form construction. Emphasis is placed on reading and interpreting blueprints and floor plans, understanding building codes, choosing appropriate layout tools, and building concrete forms. This course is intended for students enrolled in the carpenter apprentice program. (FT) AA/AS.

314 Carpenter Apprentice III**3.5 hours lecture, 3 units
Grade Only**

Prerequisite: Black Contractor's Association Studies 312 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 87.

This is a high-intermediate level carpentry course covering roof and stairway framing, insulation, windows, and exterior doors. Emphasis is placed on layout and framing common roof structures, interior

stairs, correctly selecting and installing insulation and vapor barriers, and selecting and properly installing windows, exterior doors, and hardware. This course is intended for students enrolled in the carpenter apprentice program. (FT) AA/AS.

316 Carpenter Apprentice IV**3.5 hours lecture, 3 units
Grade Only**

Prerequisite: Black Contractor's Association Studies 314 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. Must obtain a permission number from the instructor for enrollment. This course is not open to students with previous credit for Black Contractor's Association Studies 88.

This is an advanced carpentry course covering exterior and interior finish work. Emphasis is placed on the description, layout, and installation of interior and exterior wall coverings, decks, doors, stairs, and flooring material. This course is intended for students enrolled in the carpenter apprentice program. (FT) AA/AS.

Black Studies (BLAS)**100 Introduction to Black Studies****3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is an overview of the Black Studies discipline including its social and academic origins, goals and development. Emphasis is placed on providing students with an understanding of the fundamental areas of study within the field and of the interdisciplinary approach to studying the African experience in America and the world. This course is intended for students majoring in Black Studies and Ethnic Studies; and all students interested in general knowledge of the Black experience. AA/AS; CSU; UC.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

104 Black Psychology**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This course is an introduction to psychological concepts and principles as they relate to African American behaviors, perspectives and lifestyles. Emphasis is placed on comparing Euro-American theories as they have been traditionally applied to African Americans with contemporary Afri-centric theories and the ways in which they may be applied to create a greater understanding of the behaviors, lifestyles and psychological needs of African Americans. This course is intended for students majoring Black Studies and students interested in the Ethnic Studies aspects of psychology. (FT) AA/AS; CSU; UC.

110 African American Art**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This course is a historical survey of African American art from 1650 to present, including the influence of African, European and Native American art styles and traditions. This course is intended for students majoring in Black Studies, Ethnic Studies and Art; and all students interested in history, humanities, teaching, travel, and cultural enrichment from the Black experience. (FT) AA/AS; CSU; UC.

115 Sociology from a Black Perspective**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This course is a study of African American society and culture. Emphasis is placed on analyzing the origins, nature, structure and dynamics of African American life from a systemic perspective. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

116 Contemporary Social Problems from a Black Perspective**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This course is a sociological analysis of institutional racism, the process of social change and how it affects African Americans. Emphasis is placed on broad contemporary issues as they relate to African Americans, such as the prison industrial complex, gender and health care. This course is intended for Black Studies majors and anyone interested in Ethnic Studies, history, teaching and current events. (FT) AA/AS; CSU; UC.

120 Black Music**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This course is a study of African American musical forms and styles in historical perspective. Emphasis is placed on providing students with an appreciation for the African roots of a variety of African American music genres. This course is intended for students majoring in Black Studies and Ethnic Studies; and all students interested in the history of African American music. (FT) AA/AS; CSU; UC.

130 The Black Family**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This course is a study of the African American family. Emphasis is placed on the socio-cultural and psychological issues surrounding the history of the Black family in America. Topics include contemporary African American dating, marriage and divorce patterns, gender roles and extended family, kin and community networks. This course is intended for students majoring in Black Studies and Ethnic Studies; and all students interested in the historical and contemporary perspective of the Black family. (FT) AA/AS; CSU; UC.

140A African American History to Reconstruction**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This survey course examines United States History from an African American lens from the Colonial period to 1877. The course content centers on the contributions, impact, and significance of African American experiences and focuses on the political, social, economic, and cultural development of the country. This course is intended for all students interested in Black Studies, Ethnic Studies, and the history of the U.S. from an African American perspective. (FT) AA/AS; CSU; UC.

140B African American History since Reconstruction to the Present**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This survey course examines United States History from an African American lens from Reconstruction to the present. The course content centers the contributions, impact and significance of African American experiences and focuses on political, social, economic, cultural, and intellectual trends, the persistence of racism, and the struggle for

full equality affecting all Americans. This course is intended for all students interested in Black Studies, Ethnic Studies, and the history of the U.S. from an African American perspective. AA/AS; CSU; UC.

145A Introduction to African History

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of African History from the Stone Age through the beginnings of European colonization in the 1870s. Emphasis is placed on providing students with a broad presentation of the geographical features of the continent and its connections to the rest of the world, local and regional cultural, political, economic and social institutions, slavery, European conquest and colonization, and African resistance to colonization. This course is intended for students majoring in black studies or history and for all students interested in African history. (FT) AA/AS; CSU; UC.

145B Introduction to African History

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of African History from the late nineteenth century to the present. Emphasis is placed on providing students with a broad presentation of European colonization and colonial rule, African independence movements, nation-building, economic development and the continuing quest for African unity. This course is intended for students majoring in black studies or history and for all students interested in African history. (FT) AA/AS; CSU; UC.

150 Black Women in Literature, Film and the Media

3 hours lecture, 3 units

Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course analyzes stereotypical, contemporary and self images of Africana women in literature, film and media. This course is designed for Black Studies and Ethnic Studies majors, and all students interested in literature, film and media. (FT) AA/AS; CSU; UC.

155 African American Literature

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is a survey of African American cultural expression through language and literature in historical perspective. Emphasis is placed on the cultural, ethnic, and political dynamics that influence literary, musical and theoretical texts. Topics include African praise songs, slave narratives, African American folktales, poetry, lyrics, spirituals, raps, short stories, novels, speeches and essays. This course is for students majoring in Black Studies and Ethnic Studies; and all students interested in literature from an African American perspective. (FT) AA/AS; CSU; UC.

165 Sexuality and Black Culture

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Black Studies 265. This course is an in-depth study and analysis of the social and psychological factors that determine the nature of human sexuality in the African-American community. This course is intended for students majoring in Black Studies and Ethnic Studies; and all students interested in sexuality and the African-American community. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

290 Independent Study

3–9 hours other, 1-3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is designed for students who wish to conduct additional research, a special project, or learning activities in the field of African American Studies. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Business (BUSE)

52 Introduction to Online Learning

**0.5 hours lecture, 0.5 units
Pass/No Pass**

This course introduces students to the online learning environment and the District's learning management system. Emphasis is placed on the online learning environment, technical knowledge, navigating the learning management system, and academic skills for a successfully online student. This course is designed for students interested in career technical education, and students new to online learning. (FT) AA/AS.

92 Introduction to Business Communication

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Business 119 or Office Information Systems 115.

This course is a review of the principles and mechanics of English grammar and syntax for written and oral business communications. Topics include business vocabulary, dictionary usage, spelling, sentence structure, and punctuation for business writing. Students write business letters, resumes, memos, and informal business reports. This course is intended for students majoring in business who need a review of English for business communications. AA/AS.

100 Introduction to Business

**3 hours lecture, 3 units
Grade Only**

Advisory: Business 92 with a grade of "C" or better, or equivalent.

This introductory course for both business and non-business majors provides a broad understanding

of the business community, including how culture; society; economic systems; legal, international, political, and financial institutions; and human behavior interact to affect a business organization's policies and practices within the U.S. and a global society. Topics include business functions and terminology; organizational structure and design; leadership; human resource management; organized labor practices; marketing; organizational communication; technology; entrepreneurship; legal, accounting, and financial practices; the stock and securities market; and business career planning. This course is intended for students majoring in Business or anyone interested in the function and role of the business community. (FT) AA/AS; CSU; UC; C-ID BUS 110.

101 Business Mathematics

**3 hours lecture, 3 units
Grade Only**

This course provides a comprehensive study of mathematical concepts and computational techniques used in business. Topics include the mathematics of bank services; payroll; buying and selling; interest and loans; taxes; insurance; depreciation; and annuities, stocks, and bonds. Students also use descriptive statistics to evaluate business-related data and quantitative reasoning skills to select among different options in business-related decisions. This course is intended for students majoring in business or others who work or intend to work in a business setting such as managers, supervisors, or work team members. (FT) AA/AS; CSU.

102 Introduction to Customer Service

**3 hours lecture, 3 units
Grade Only**

This course provides students with basic knowledge of customer service by examining customer service from the provider's and customer's perspectives. It takes a pragmatic approach to applying the principles of service within an organization. Topics include leadership in customer service, customer retention and satisfaction, classifications of service organizations, and principles and practices of internal service. This course is intended for students majoring in business or others interested in business. (FT) AA/AS; CSU.

115 Statistics for Business**3 hours lecture, 3 units
Grade Only**

Prerequisite: Successful completion of Intermediate Algebra with a "C" or better or appropriate placement based on California title 5 regulations.

Advisory: Computer Business Technology 140 or Computer Business Technology 143, each with a grade of "C" or better, or equivalent.

This course is a study of statistical analysis. Topics include descriptive statistics, probability, sampling and sampling distributions, confidence intervals, hypothesis testing, analysis of variance (ANOVA), and regression and correlation analyses as aids for business decision making. This course is designed for students majoring in business, economics, information technology, social science, or related fields. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID MATH 110.

119 Business Communications**3 hours lecture, 3 units
Grade Only**

Prerequisite: English 101 with a grade of "C" or better, or equivalent.

This course applies the principles of effective and ethical communication to the creation of letters, memos, emails, and written and oral reports for a variety of business situations. The course emphasizes the development, analysis, organization, and composition of various types of professionally written messages, analytical reports, and business presentations using word processing and presentation-graphics software. Other topics include interpersonal communication, electronic media, and international/cross-cultural communication. This course is intended for students majoring in business and for others working in a business environment. (FT) AA/AS; CSU; C-ID BUS 115.

120 Personal Financial Management**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Consumer Studies 110.

This course is an introduction to the principles of personal finance and money management. Students examine their personal relationships with money and explore the psychological, sociological, and physiological factors that influence financial decisions. Emphasis is placed on financial goal

setting, culminating in the development of a personal budget and financial plan. Other topics include income generation and career planning; effective spending decisions including major consumer purchases and real estate; savings strategies; credit building; insurance; retirement and estate planning; investment options; and the interrelationships among financial, social, physical, and mental health. This course is intended for all students interested in personal finance and money management. (FT) AA/AS; CSU; UC.

140 Business Law and the Legal Environment**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 or Business 92, each with a grade of "C" or better, or equivalent.

This course introduces students to the legal system, the laws that govern business in America, and the principles underlying fundamental legal concepts. Topics include judicial and administrative systems; ethics; contracts; torts; bankruptcy; agency; business organizations and ownership types; government agencies and regulation; protection of intellectual property interest; and the international business environment. This course is intended for students majoring in business and for others interested in business law. (FT) AA/AS; CSU; UC; C-ID BUS 120, BUS 125.

145 Business of Cannabis**2 hours lecture, 2 units
Grade Only**

This course examines the business of running a legal cannabis dispensary. Emphasis is placed on the analysis and practical application of dispensary business operations, legal issues and compliance, accounting, and security. This course is intended for students interested in the business aspects of running a cannabis dispensary. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

150 Human Relations in Business**3 hours lecture, 3 units
Grade Only**

This course introduces students to human behavior as it relates to business. Topics include leadership, communication, status, decision making, motivation, and personnel problems. This course is intended for students majoring in business and others who work or intend to work in a business setting such as managers, supervisors, and work team members. (FT) AA/AS; CSU.

155 Small Business Management**3 hours lecture, 3 units
Grade Only**

Advisory: Business 100 and Business 101, each with a grade of "C" or better, or equivalent.

This course is a study of the elements involved in successfully operating a small business. Topics include human resource management, marketing for small business, and legal issues. This course is intended for students majoring in Business or anyone interested in owning or operating a small business. (FT) AA/AS; CSU.

157 Developing a Plan for the Small Business**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent, and Business 101 with a grade of "C" or better, or equivalent.

This course prepares students to create an effective plan for developing a new business. Emphasis is placed on the key decisions facing the entrepreneur, including financing, marketing, and business location. This course is designed for students majoring in Business or planning to start their own business. (FT) AA/AS; CSU.

201 Business Organization and Management**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course covers business organization and management fundamentals with a focus on the managerial functions of planning, organizing, leading, and controlling. Other topics include managerial ethics, corporate social responsibility, and personal management skills and techniques. This course is intended for students majoring in

business and for others who work or intend to work in a position of organizational responsibility such as managers and supervisors. (FT) AA/AS; CSU.

270 Business Internship / Work Experience**54 - 216 hours other, 1-4 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course provides on-the-job learning experiences for students employed in a business-related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation and achievement of job-related learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring in Business or those interested in the business field.(FT) AA/AS; CSU.

290 Independent Study**3 - 9 hours other, 1-3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of business. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

440 Cyber Law and Ethics**48 - 54 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a study of various technical and administrative aspects of cybersecurity as it relates to law, computing, and ethics. Emphasis is placed on ethical theory and professional ethics in cybersecurity. Topics include relativism, utilitarianism, and deontological theories; methods and tools for analysis in ethical arguments; legal bases for the right to privacy and freedom of expression; and various legislation and regulations that impact the Internet and cyber technology. This course is designed for students in the Cyber Defense

and Analysis program. (FT) Baccalaureate Degree Credit.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Chemistry (CHEM)

16 Workshop for Introduction to General Chemistry

**1.5 hours lab, 0.5 units
Pass/No Pass**

Corequisite: Chemistry 152.

This is a guided problem solving course designed to supplement lecture material in Introduction to General Chemistry. Focus is placed on nomenclature, dimensional analysis, chemical equations, stoichiometry, and solutions chemistry. This course is recommended for students concurrently enrolled in Introduction to General Chemistry lecture who wish to supplement their instruction. (FT) Not applicable to the Associate Degree.

20 Introduction to General Chemistry Refresher

**1.5 hours lab, 0.5 units
Pass/No Pass**

This course is designed for students that have successfully completed Introduction to General Chemistry but need a review course before beginning the General Chemistry. Also, students who have completed high school chemistry and wish to prepare for the challenge exam for General Chemistry may also benefit. Focus is on chemical calculations, density, molar mass, molarity, stoichiometry, and nomenclature. This course will not replace a failing grade in Introduction to General Chemistry. It does not satisfy the prerequisite for General Chemistry I. (FT) Not applicable to the Associate Degree.

100 Fundamentals of Chemistry

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations.

Corequisite: Completion of or concurrent enrollment in Chemistry 100L with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for or concurrent enrollment in Chemistry 152, or Chemistry 200.

This course is an introductory study of the language and tools of chemistry. Basic concepts of the structure, properties, interactions of matter and energy are studied, both qualitatively and quantitatively. Emphasis is placed on matter, chemical changes, chemical conversions, chemical bonding, and acid-base chemistry. This course is intended for students majoring in nursing, nutrition, or animal health technology and provides a foundation for further coursework in chemistry, in particular for introductory organic chemistry. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID CHEM 101.

100L Fundamentals of Chemistry Laboratory

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations.

Corequisite: Completion of or concurrent enrollment in Chemistry 100 with a grade of "C" or better, or equivalent.

This laboratory course is designed to illustrate the principles of inorganic and physical chemistry and to familiarize students with scientific reasoning, basic laboratory equipment and safe practices, scientific data collection methods and interpretation. This laboratory course is intended for students majoring in nursing, nutrition and allied health sciences, and provides a foundation for future lab work in chemistry. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID CHEM 101.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

111 Chemistry in Society**3 hours lecture, 3 units
Grade Only**

This course emphasizes conceptual, not mathematical, topics in chemistry and scientific thinking. Current issues in environmental chemistry such as energy resources, air and water pollution are explored. Students discuss the effects and controversy surrounding the use of different forms of energy. In addition, current issues in organic and biochemistry are examined including trends in diets, certain medicines and drugs, and household items. Students analyze current trends or news involving chemistry. Topics include a basic understanding of matter and energy, physical and chemical changes, the atom, nuclear chemistry, bonding, acids and bases, organic chemistry, and biochemistry. This course is intended for non-science majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

111L Chemistry in Society Laboratory**3 hours lab, 1 unit
Grade Only**

Corequisite: Completion of or concurrent enrollment in Chemistry 111 with a grade of "C" or better, or equivalent.

This course illustrates the principles of chemistry in order for the student to understand how chemistry is used in our society. Experiments explore not only basic concepts in chemistry such as matter, energy, and the atom, but also explore real world applications of chemistry. This includes performing experiments related to the chemistry of the environment, household products, and biochemistry. Students learn how to work safely within the laboratory. This laboratory course is intended for non-science majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

130 Introduction to Organic and Biological Chemistry**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Chemistry 100 and 100L, or Chemistry 152 and 152L, each with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Chemistry 130L with a grade of "C" or better, or equivalent.

This is a one-semester course that introduces the basic physical, chemical and structural features of

organic and biological compounds. Topics such as bonding, saturated and unsaturated hydrocarbons, the chemistry of organic functional groups, and the properties of important biological compounds such as carbohydrates, fats, and proteins are covered. The importance of these compounds in our daily lives is emphasized. This course is designed for nursing, nutrition, and allied health majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

130L Introduction to Organic and Biological Chemistry Laboratory**3 hours lab, 1 unit
Letter Grade or Pass/No Pass Option**

Prerequisite: Chemistry 100 and 100L, or Chemistry 152 and 152L, each with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in: Chemistry 130 with a grade of "C" or better, or equivalent.

This is a one-semester laboratory course that illustrates the principles presented in Chemistry 130. Students are introduced to common organic chemistry laboratory equipment, fundamental organic and biochemical reactions, tests and techniques. Techniques covered include chromatography, recrystallization, and distillation. Tests and reactions of common organic functional groups, carbohydrates, fats, and amino acids are covered. Synthesis of a medicinal compound such as aspirin or a nitrogen-based analgesic is also covered. This course is designed for nursing, nutrition, and allied health majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

152 Introduction to General Chemistry**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or placement Milestone M50 based on California Title 5 regulations.

Corequisite: Completion of or concurrent enrollment in Chemistry 152L with a grade of "C" or better, or equivalent.

Advisory: Mathematics 116, Mathematics 104, or Mathematics 119, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Chemistry 151.

This is a one-semester preparatory course in chemistry consisting of an intensive study of the principles of inorganic and physical chemistry in preparation for General Chemistry. Topics include atomic structure, chemical nomenclature, periodicity, chemical equations, stoichiometry, solutions, and gas laws. Emphasis is placed on problem solving and chemical calculations. This course is intended for those students majoring in one of the natural sciences, engineering, or related curricula who need to take General Chemistry. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

152L Introduction to General Chemistry Laboratory

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations. *Corequisite:* Completion of or concurrent enrollment in Chemistry 152 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Chemistry 151. This course is a one-semester laboratory in the principles of inorganic and physical chemistry in preparation for General Chemistry. Topics include chemical measurement, significant figures, laboratory safety, laboratory techniques, chemical reactions and stoichiometry. Emphasis is placed on problem solving, data analysis and chemical calculations. This course is intended for students majoring in one of the natural sciences, engineering or related curricula who need to take General Chemistry. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

200 General Chemistry I – Lecture

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Chemistry 152 and Chemistry 152L, each with a grade of "C" or better, or equivalent; Mathematics 96 with a grade of "C" or better, or equivalent or Milestone M50. *Corequisite:* Completion of or concurrent enrollment in Chemistry 200L with a grade of "C" or better, or equivalent.

This is the first course in a two-course sequence in general chemistry. Emphasis is placed on the principles and laws of inorganic chemistry, including quantitative, mathematical problem solving. Topics

include chemical equations, stoichiometry, atomic theory and its relationship to periodicity of the elements, bonding theories, molecular geometry, calorimetry, thermochemistry, solution chemistry, liquids, solids, and the gas laws. This course is intended for science majors and all students interested in chemistry. (FT) AA/AS; CSU; UC; C-ID CHEM 110; C-ID CHEM 120S (CHEM 200, 200L, 201, 201L).

200L General Chemistry I – Laboratory

6 hours lab, 2 units

Letter Grade or Pass/No Pass Option

Prerequisite: Chemistry 152 and Chemistry 152L, each with a grade of "C" or better, or equivalent; Mathematics 96 with a grade of "C" or better, or equivalent or Milestone M50.

Corequisite: Completion of or concurrent enrollment in Chemistry 200 with a grade of "C" or better, or equivalent.

This is the first-semester laboratory course in a two-course sequence in general chemistry. Emphasis is placed on laboratory experiments that illustrate the fundamental principles and laws of chemical behavior and the properties of matter, including quantitative, mathematical problem-solving. Topics include techniques of data analysis, chemical formulas, equations, stoichiometry and maintenance of a laboratory notebook. This course is intended for science majors and all students interested in chemistry. (FT) AA/AS; CSU; UC; C-ID CHEM 110; C-ID CHEM 120S (CHEM 200, 200L, 201, 201L)

201 General Chemistry II – Lecture

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Chemistry 200 and Chemistry 200L, each with a grade of "C" or better, or equivalent; Mathematics 96 with a grade of "C" or better, or equivalent or Milestone M50.

Corequisite: Completion of or concurrent enrollment in Chemistry 201L with a grade of "C" or better, or equivalent.

This course is the second course in a two-course sequence in general chemistry and is intended for students majoring in science or satisfying

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

prerequisites for professional schools. The course covers the principles of physical and inorganic chemistry with an emphasis on quantitative, mathematical problem solving. Topics in the course include chemical kinetics, chemical equilibrium, acid-base theory, thermodynamics, electrochemistry, coordination chemistry and nuclear chemistry. The course also includes an introduction to organic chemistry. (FT) AA/AS; CSU; UC; C-ID CHEM 120S (CHEM 200, 200L, 201, 201L).

201L General Chemistry II – Laboratory
6 hours lab, 2 units
Letter Grade or Pass/No Pass Option

Prerequisite: Chemistry 200 and Chemistry 200L, each with a grade of “C” or better, or equivalent; Mathematics 96 with a grade of “C” or better, or equivalent or Milestone M50.

Corequisite: Completion of or concurrent enrollment in Chemistry 201 with a grade of “C” or better, or equivalent.

This is the second-semester laboratory course of a two-course sequence in general chemistry. It is intended for students majoring in science or satisfying prerequisites for professional schools. Emphasis is placed on the fundamental principles of physical and inorganic chemistry. Topics include techniques of data analysis, chemical kinetics, chemical equilibrium, acids, bases, acidic/basic salts, thermochemistry, electrochemistry, and coordination chemistry. Computer skills are introduced and applied to data analysis, laboratory simulations, and computer interfacing with laboratory equipment. (FT) AA/AS; CSU; UC; C-ID CHEM 120S (CHEM 200, 200L, 201, 201L).

231 Organic Chemistry I - Lecture
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Chemistry 201 and Chemistry 201L, each with a grade of “C” or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Chemistry 231L with a grade of “C” or better, or equivalent.

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course is the first semester of a one-year course in organic chemistry. Major themes include, but are not limited to, bonding, molecular structure, isomerism, conformational analysis, nomenclature, reaction mechanisms, and synthesis. Emphasis is placed on the reactions of aliphatic compounds, such as alkanes, cycloalkanes, alkenes, alkynes, alkyl

halides, and alcohols. Organic chemistry literature and spectral interpretation using techniques, such as infrared and nuclear magnetic spectroscopies, are introduced to support the above topics. This course is designed for students pursuing a degree in the chemical sciences or training in chemical technology, as well as other transfer students who need organic chemistry as part of preparation for majors, such as molecular biology, premedical, pre dental, and pharmacy. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID CHEM 160S (CHEM 231, 231L, 233, 233L).

231L Organic Chemistry I - Laboratory
6 hours lab, 2 units
Letter Grade or Pass/No Pass Option

Prerequisite: Chemistry 201 and Chemistry 201L, each with a grade of “C” or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Chemistry 231 with a grade of “C” or better, or equivalent.

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This laboratory course is designed to illustrate the principles presented in the first semester of organic chemistry. Emphasis is placed on the determination of physical properties and the separation, purification and identification of organic compounds. This course acquaints students with the equipment, glassware, techniques and safe practices specific to the organic chemistry laboratory. Techniques, such as measurement of physical constants, recrystallization, extraction, distillation and chromatography are used in the synthesis and/or characterization of selected classes of organic compounds, such as alkanes, alkenes, alkynes, alkyl halides, and alcohols. The organic chemistry literature and spectral interpretation using techniques, such as infrared and nuclear spectroscopies, are introduced to support the above topics. This course is designed for students pursuing a degree in the chemical sciences or training in chemical technology, as well as other transfer students who need organic chemistry as part of preparation for majors, such as molecular biology, premedical, pre dental, and pharmacy. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID CHEM 160S (CHEM 231, 231L, 233, 233L).

233 Organic Chemistry II - Lecture**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Chemistry 231 and Chemistry 231L, each with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Chemistry 233L with a grade of "C" or better, or equivalent.

This course is the second semester of a one-year sequence in organic chemistry. Major themes include, but are not limited to, molecular structure, molecular behavior, nomenclature, reaction mechanisms, and synthesis. Emphasis is placed on the reactions of selected classes of organic compounds, such as alcohols, ethers, aldehydes, ketones, carboxylic acids and their derivatives, amines, benzenoid and heterocyclic aromatics and their derivatives, carbohydrates, lipids, amino acids and their bio-organic compounds. The study of these molecules provides a backdrop for exploring the factors that govern particular transformations within a synthetic sequence. The use of print and electronic media and the interpretation of spectroscopic information (such as infrared, nuclear magnetic resonance, and ultraviolet-visible spectroscopies, and mass spectrometry) for the analysis and differentiation of molecular structures is continued. This course is designed for students pursuing a degree in the chemical sciences or training in chemical technology, as well as other transfer students who need organic chemistry as part of preparation for majors, such as molecular biology, premedical, pre dental, and pharmacy. (FT) AA/AS; CSU; UC; C-ID CHEM 160S (CHEM 231, 231L, 233, 233L).

233L Organic Chemistry II - Laboratory**6 hours lab, 2 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Chemistry 231 and Chemistry 231L, each with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in: Chemistry 233 with a grade of "C" or better, or equivalent.

This course is designed to illustrate the principles presented in the second semester of organic chemistry. Emphasis is placed on synthesis, purification and/or characterization of selected classes of organic compounds, including but not limited to aromatics, alcohols, aldehydes and ketones, carboxylic acids, amines, and simple examples of bio-organic molecules. Additional emphasis is placed on multi-step synthetic pathways

and product identification using selected methods of qualitative organic analysis such as wet chemical and advanced spectroscopic techniques. Variation of scale from micro- to macro-quantities, and more advanced separation and analytical techniques, distinguish the level of this course from the first semester of organic chemistry laboratory. This course is designed for students pursuing a degree in the chemical sciences or training in chemical technology, as well as other transfer students who need organic chemistry as part of preparation for majors, such as molecular biology, premedical, pre dental, and pharmacy. (FT) AA/AS; CSU; UC; C-ID CHEM 160S (CHEM 231, 231L, 233, 233L).

251 Quantitative Analytical Chemistry**3 hours lecture, 6 hours lab, 5 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Chemistry 201 and Chemistry 201L, each with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Mathematics 121 or Mathematics 150, each with a grade of "C" or better, or equivalent.

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This is a course in quantitative analysis. Major topics include theory and practice of gravimetric and volumetric methods of chemical analysis and introduction to instrumental methods of analysis with a focus on precision and accuracy of experimental data. This course is intended for students majoring in chemistry or biochemistry and others who need the course for career advancement. (FT) AA/AS; CSU; UC.

255 Inside the Chemical, Biochemical, and Pharmaceutical Industries**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Chemistry 100, and Chemistry 100L or Chemistry 152 and Chemistry 152L, each with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

This course is an introduction to the chemical, biochemical, and pharmaceutical industries. Topics include drug discovery, development and approval processes, the Food and Drug Administration (FDA), good lab practice (GLP), good manufacturing practice (GMP), hazardous materials management, quality control and assurance, and common problems/calculations encountered in a laboratory environment. This course is intended for students interested in becoming a chemical and/or biochemical laboratory technician. (FT) AA/AS; CSU.

290 Independent Study

3–9 hours other, 1–3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is designed for students who wish to conduct additional research, a special project, or learning activities in the field of chemistry. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Chicana and Chicano Studies (CHIC)

110A Introduction to Chicana and Chicano Studies

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is an introductory survey of the field of Chicana/o Studies and the factors that influence the Chicano culture. Emphasis is placed on the historical development of the Chicano people including their Mesoamerican roots, cultural identification, political activities, and their contemporary roles and influence in United States culture, society and economy. This course is designed for all students

interested in Chicana/o Studies, Social Sciences, and Ethnic Studies. (FT) AA/AS; CSU; UC.

110B Introduction to Chicana and Chicano Studies

3 hours lecture, 3 units

Grade Only

This course is a survey of the field of Chicano Studies and the historical and contemporary factors that influence Chicano society. Emphasis is placed on the Chicana/o experience in the United States through an analysis of the social, political, and economic factors that impact and shape the Chicana/o community. This course is designed for all students interested in Chicana/o Studies, Social Studies and Ethnic Studies. (FT) AA/AS; CSU; UC.

130 Mexican Literature in Translation

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

A survey of Mexican literature in translation, introducing students to authors of the novel, short story poem, essay, and folklore. (FT) AA/AS; CSU; UC.

135 Chicana/o Literature

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This is a survey course that examines the literary expressions of the Chicana/o people in the United States with an emphasis on the early 1800s to the present. Students in this class read and discuss works from a variety of literary genres. Students also read and discuss works from important contributors to the body of Chicana/o Literature in order to understand how the literature reflects the historical, socio-political, cultural experiences of the Chicana/o in the United States and its relationship to global literary movements. This course is designed for Chicana/o Studies majors and anyone interested in Ethnic Studies and literature. (FT) AA/AS; CSU; UC.

138 Literature of La Raza in Latin America in Translation

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is a survey of the novels, short stories, poetry and films produced in Latin America since the early civilizations to the present. Emphasis is placed on major cultural works reflecting and questioning the historical legacies and material realities of the project of colonialism in the Americas and its peoples. This course is for all students with an

interest in the study of Latin American literature and culture. (FT) AA/AS; CSU; UC.

140 Chicana/o Sociology

**3 hours lecture, 3 units
Grade Only**

This course examines the institutional and structural conditions as well as social dynamics that have and continue to shape the Chicana/o experience in U.S. society. This course makes use of Sociological perspectives that incorporate various paradigms/theories/concepts including but not limited to: Stratification, Colonialism/Imperialism, Chicana Feminism, Queer Theory, Conflict Theory, Critical Race Theory, Intersectionality, and Assimilation/Acculturation. The application to Chicana/os and Latinos of traditional sociological theories and empirical research are examined and evaluated. This course is intended for all students interested in Chicana/o Studies, ethnic studies, or the social sciences. (FT) AA/AS; CSU; UC.

141A United States History from a Chicano Perspective

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is a survey of early American history from the Mexican/Chicano perspective. Emphasis is placed on the period of discovery to the period of Reconstruction with emphasis on the evolution, influence, and experience of the Chicano. Students analyze Chicano contributions to the political, social, economic, and cultural development of the United States. This course is intended for all students interested in history, ethnic studies, or other social sciences. (FT) AA/AS; CSU; UC.

141B United States History from a Chicano Perspective

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This is a survey course in American history that covers the period of the American acquisition in 1848 of Mexico to the present. Emphasis is placed on the role of Chicanos in the development of the United States throughout the nineteenth and twentieth centuries. Topics include slavery in the former Mexican territories, the Native American experience, immigration patterns and constitutional development and government in California. This course is intended for all students interested in history, ethnic studies, or other social issues. (FT) AA/AS; CSU; UC.

150 History of Mexico

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is a survey of Mexican history from the ancient times to the present. Special emphasis is given to major historical developments from the time of the Spanish Conquest to the Revolution of 1910 and its aftermath. Special consideration is given to the economic, political, social, and cultural factors which have shaped modern Mexico. This course is designed for students majoring in Chicano Studies or History and prepares students for careers dealing with Mexico and/or Mexican culture and the relationships between Mexico and the United States. (FT) AA/AS; CSU; UC.

170 La Chicana

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is the study of the Chicana in American society in historical and sociological perspective. Emphasis is placed on Chicana feminist scholarship and cultural representations, border issues, resistance to patriarchy, and the search for power. This course is designed for all students interested in Chicana/o Studies and Ethnic Studies. (FT) AA/AS; CSU; UC.

190 Chicano Images in Film

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is a critical approach to cinematic images of Chicanos as depicted in selected films. Focus is placed on stereotypical and negative portrayals during early cinema with an examination of the more realistic and complex portraits of more recent times. Film genres, such as early Hollywood features, documentaries and the emerging "Chicano film" are examined. This course is designed for students interested in film studies and Ethnic Studies with a special focus on the Chicano experience in film. (FT) AA/AS; CSU; UC.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

201 The Indigenous Tradition of Mexico and Ancient Mesoamerica

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

This course examines the Indigenous traditions of Mexico and Ancient Mesoamerica. The course explores the culture and history of the Mesoamerican civilizations and their relationship with the societies of Aridamerica and Oasisamerica, and the experiences of the Indigenous communities from the colonial times to the present. This course is intended for students who are pursuing a major in Chicana and Chicano Studies, History, Ethnic Studies, or other Social Sciences, and all students interested in the Mexican culture. (FT) AA/AS; CSU; UC.

210 Chicano Culture

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

This course is a study of Chicana/o culture in the United States. Emphasis is placed on historical and contemporary representations of Chicana/os through their cultural products, such as music, dance, theatre, literature and film. Students apply Cultural Studies theories to analyze and interpret Chicana/o cultural products. This course is designed for all students interested in Chicana/o culture and Ethnic Studies. (FT) AA/AS; CSU; UC.

230 Chicano Art

3 hours lecture, 3 units
Grade Only

This course is a comprehensive overview of the major influences, themes and styles in Chicano art from its emergence in the 1960s to the beginning of the 21st century. Emphasis is placed on the historical, social and cultural context of the Chicana/o art movement and the major forces that shape artistic creation within this field. Topics include Chicano paintings, murals, prints, sculpture, installation, performance and video. This course is designed for all students interested in Chicana/o studies, Ethnic Studies and for art majors who want to explore a revolutionary contemporary art movement. (FT) AA/AS; CSU; UC.

250 Introduction to Chicana/o Dramatic Art

3 hours lecture, 3 units
Grade Only

This course is a survey of Chicano and Latino theater, its historical roots, techniques, styles and literature. Students explore and analyze the origins and development of

various related forms in the context of the Chicana/o culture of the U.S. Southwest and Mexico. This course is designed for Chicana/o Studies majors and for students interested in the Dramatic Arts, Ethnic Studies and literature. (FT) AA/AS; CSU; UC.

290 Independent Study

Hours by Arrangement, 1–3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Must obtain a permission number from instructor for registration. For students with advanced background in Chicano Studies who wish to study special problems or work on specialized projects. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Child Development (CHIL)

100 Principles and Practices of Early Childhood Education

3 hours lecture, 3 units
Grade Only

This course is an examination of the current early childhood field and workforce needs. Emphasis is placed on underlying theoretical principles and competencies as they relate to becoming highly qualified and successful early childhood educators who are prepared to meet the needs of our diverse society. It is designed as a foundational course for students majoring in child development, and those who are exploring career options for advancement in the field. (FT) AA/AS; CSU.

101 Human Growth and Development

3 hours lecture, 3 units
Grade Only

This course examines the progression of development in the physical, cognitive, social, and emotional domains and identifies developmental milestones for children from

conception through adolescence. Emphasis is on interactions between biological processes and environmental factors. Students observe children, evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories. This course is a core requirement for the State of California Child Development Permit and the State of California Community Care Licensing, Title XXII. (FT) AA/AS; CSU; UC; C-ID CDEV 100.

133 Curriculum: Language, Literacy, and Art
3 hours lecture, 3 units
Grade Only

This course introduces the function of language, literacy, and artistic expression in early childhood educational programs. Emphasis is placed on the development of language, literacy, and art curriculum activities, and selection of appropriate materials. Students utilize the California Foundations and Frameworks to design and implement appropriate activities for a variety of age groups and developmental levels. This course is intended for students interested in working in early childhood education, obtaining California Child Development Permits, and transferring to four-year institutions. (FT) AA/AS; CSU.

135 Curriculum: Science, Math, and Music and Movement
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Child Development 131.

This course introduces the function of science, math, music, and movement in early childhood educational programs. Emphasis is placed on the development of science, math, and music and movement concepts, and curriculum activities. Students utilize the California Foundations and Frameworks to design and implement appropriate activities for a variety of age groups and developmental levels. This course is intended for students interested in working in early childhood education, obtaining California Child Development Permits, and transferring to four-year institutions. (FT) AA/AS; CSU.

141 The Child, Family and Community
3 hours lecture, 3 units
Grade Only

This course is a study of the dynamics of human development and socialization in a culturally pluralistic society. Emphasis is placed on the influences of contemporary family living and cultural patterns on the child, school-family relationships, and community resources and services that support and strengthen families. This course is a core requirement for California Child Development teacher/director center permits as well as for the State of California Department of Community Care Title 22 licensing childcare centers requirements. This course is designed for all students interested in child development and multi-cultural and behavioral studies. (FT) AA/AS; CSU.

151 Program Planning
3 hours lecture, 3 units
Grade Only

Prerequisite: Child Development 101, and Child Development 111, or Child Development 121, Child Development 131, Child Development 133 or Child Development 135, and Child Development 160, each with a grade of "C" or better, or equivalent.

Corequisite: Child Development 270 or Child Development 275.

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course focuses on planning the preschool learning environment to promote optimal development. Emphasis is placed on curriculum planning, guidance, safety, record keeping, observation techniques, project planning, and classroom management. Students enrolled in this course must be concurrently working in a preschool learning environment under the supervision of a person holding a Child Development Master Teacher Permit or the equivalent. This course is intended for students pursuing teaching careers in early care and education settings and partially fulfills State of California Permit and Title 22 teacher requirements. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.
 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

153 Techniques of Teaching Using the Reggio Emilia Approach

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Child Development 265E.

This course is based on the early childhood philosophy and teaching techniques adopted by the schools from Reggio Emilia, Italy. Emphasis is placed on the overall principles of the Reggio Emilia philosophy of valuing the capabilities of the child, collaborations between the teachers, family and community, strategies of emergent curriculum, project work and the documentation process. Adaptation strategies for the use of Reggio in traditional preschools and childcare programs are addressed. This course is designed for students majoring in child development and for teachers and administrators as partial fulfillment of Title 22 and Child Development Permit requirements. (FT) AA/AS; CSU.

160 Observation and Assessment of Children

**1 hour lecture, 3 hours lab, 2 units
Grade Only**

Limitation on Enrollment: Health and Safety. TB clearance within the last year is required.

This course focuses on behavioral patterns and growth processes of young children through the use of a variety of assessment and observation strategies to document child development and behavior. Child observations are conducted and analyzed through supervised participation in the campus early education center. Topics include the use of observation and assessment of children in planning, implementing, and evaluating early childhood curriculum and environments. This course partially fulfills the specialization requirements for the State of California Master Teacher Permit. (FT) AA/AS; CSU.

161 Observations and Issues in Child Development

**1 hour lecture, 3 hours lab, 2 units
Grade Only**

Limitation on Enrollment: Health and Safety. TB clearance within the last year is required.

This course explores current issues in child development and how these issues influence both the child and family. The course emphasizes effective communication skills, positive guidance techniques,

kindergarten readiness skills, and appropriate classroom activities. It is intended for students majoring in child development and parents of children enrolled in the campus child development center. It partially fulfills the specialization requirements for the State of California Master Teacher Permit. (FT) AA/AS; CSU.

162 Positive Child Guidance

**3 hours lecture, 3 units
Grade Only**

This course explores various behavior management techniques; interpersonal communication; and ideas and suggestions to assist caregivers in guiding a child’s behavior. Students apply developmental, cultural, and communicative principles in combination with observations of real situations. The focus is on children from birth through age 10. This course partially fulfills the specialization requirements for the State of California Master Teacher Permit. It is intended for students who plan careers in early childhood and family support programs. (FT) AA/AS; CSU.

166 Curriculum for Diverse Learners

**3 hours lecture, 3 units
Grade Only**

This course is an in-depth study of inclusive environments, guidance techniques, and curriculum planning strategies that are designed to meet the needs of the diverse children and families in our current society. Emphasis is placed on cognitive, physical, social-emotional, cultural, and linguistic diversity, and how well-designed environments, intentionally planned curriculum, and supportive behavioral strategies work together to provide a classroom that is welcoming and ensures that all children and families in the program thrive. This course is designed for parents, teachers, nurses, social workers, and paraprofessionals employed in schools and early childhood programs. This course partially meets the specialization requirements for the Master Teacher Permit. (FT) AA/AS; CSU.

175 Infant-Toddler Growth and Development

**3 hours lecture, 3 units
Grade Only**

This course examines the physical, social, emotional, and cognitive development of the infant and toddler and appropriate strategies to support this development. Emphasis is placed on culturally responsive techniques that support diverse family practices and connections. Appropriate observations

and visitations to the community are required. This course meets State of California Title 22 licensing regulations for teachers in infant-toddler settings and fulfills the infant-toddler specialization requirement for the State of California Master Teacher Permit when taken in addition to CHIL 176. It is intended for students majoring in child development, parents, or those interested in infant-toddler care. (FT) AA/AS; CSU.

176 Principles of Infant-Toddler Caregiving
3 hours lecture, 3 units
Grade Only

This course is a study of the principles of infant-toddler care, including all aspects of infant and toddler development. Emphasis is placed on planning appropriate indoor and outdoor curriculum and environments. Topics include health, nutrition, and safety for the very young as well as licensing regulations, staff interactions, parent participation, and program development. This course meets State of California Title 22 licensing regulations for teachers in infant-toddler settings and fulfills the infant-toddler specialization requirement for the State of California Master Teacher Permit when taken in addition to CHIL 175. It is intended for students majoring in child development, parents, or those interested in infant-toddler care. (FT) AA/AS; CSU.

180 Nutrition, Health and Safety for Children
3 hours lecture, 3 units
Grade Only

This course is a survey of the nutritional, health, and safety needs of children from infant/toddlers through preschool age. Topics include but are not limited to the planning and execution of environments and activities that promote safety, balanced diet, and overall health for children. Students also learn the fundamentals of pediatric first aid and cardiopulmonary resuscitation (CPR). This course meets the Title XXII, fifteen hour, Health and Safety Training requirement, including signs and symptoms of child abuse. It is intended for students majoring in child development and practicing child development professionals. (FT) AA/AS; CSU.

188 Violence in the Lives of Children and Families
3 hours lecture, 3 units
Grade Only

This course examines the causes and effects of violence in the lives of children and families. Emphasis is placed on the skills needed for conflict

resolution and on the environmental set-ups and curricula that promote peaceful, cooperative, and nonviolent play and interactions. Other topics include the history, current legislation, reporting responsibilities, and identification of abuse. This course is designed for parents, teachers, nurses, and other child care professionals who wish to learn strategies for understanding and responding to the various forms of stress and violence that affect children today. (FT) AA/AS; CSU.

202 Administration of Early Childhood Programs
3 hours lecture, 3 units
Grade Only

Prerequisite: Child Development 101, and Child Development 141, each with a grade of "C" or better, or equivalent.

Advisory: Child Development 111, and Child Development 121 or Child Development 131, each with a grade of "C" or better, or equivalent. This course is an overview of early childhood education program administration. Topics include theoretical perspectives on early childhood education, licensing regulations, funding sources, budgetary considerations, personnel management, curriculum development, and teacher selection. The course meets State of California Title 22 licensing regulations for site supervisors. It also partially fulfills State of California matrix requirements for Program Director and Site Supervisor Permits. This course is intended for anyone seeking a position as a site supervisor or center director. (FT) AA/AS; CSU.

210 Supervision of Early Childhood Programs
3 hours lecture, 3 units
Grade Only

Prerequisite: Child Development 141, and Child Development 151, with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Child Development 201 or Child Development 201B.

(FT) = A field trip may be required for this course.
 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

This course is a study of the supervisory tools and techniques required to organize and evaluate early childhood programs. Emphasis is placed on supervisory functions, in-service staff training, educational philosophies, program and staff evaluation, models of parent education and involvement, and supportive services. This course is designed for students who intend to go into supervisory positions in early childhood education. It partially fulfills the State of California Child Development Permit Matrix requirement for supervisors and directors and also meets the State of California Title 22 licensing regulations for directors. (FT) AA/AS; CSU.

215 Adult Supervision and Mentoring in Early Childhood Settings

**3 hours lecture, 3 units
Grade Only**

Prerequisite: Child Development 151 with a grade of "C" or better, or equivalent.

This course is a study of the methods and principles of supervising adults in early childhood settings. Students study effective models for guiding and evaluating adults, developing positive communication skills and recognizing the role of mentors in teaching environments. This course is designed for students who supervise other adults in classrooms while simultaneously providing appropriate settings for young children. It partially meets the requirements for the Master Teacher Permit, Site Supervisor, and Program Director permits issued by the California Commission on Teacher Credentialing. AA/AS; CSU.

270 Work Experience

**54–216 hours other, 1–4 units
Grade Only**

This course is for Child Development students to acquire on-the-job training within an early care and education facility and partially fulfills State of California Permit and Title 22 teacher requirements. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. (FT) AA/AS; CSU.

275 Supervised Field Study

**3–9 hours other, 1–3 units
Grade Only**

Corequisite: Child Development 151.

Advisory: Child Development 160 with a grade of "C" or better, or equivalent.

This directed field study course provides students with an opportunity to apply classroom information in a practical setting with supervision from faculty as well as fieldsite supervisors. This course is intended for students who plan to teach or supervise in early childhood settings. It partially fulfills Title 22 and the State of California Child Development Permit experience requirement. (FT) AA/AS; CSU.

280 Environmental Rating Scale

**1 hour lecture, 1 unit
Grade Only**

This course introduces the function of the Early Childhood Environmental Rating Scale (ECERS). The course focuses on the importance of the environment and interactions in early childhood programs. This course is intended for early childhood professionals currently working in the field as well as students seeking professional development, child development permits, and employment opportunities. (FT) AA/AS; CSU.

290 Independent Study

**3–9 hours other, 1–3 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project or learning activities in the field of child development. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

291 Child Development Lab Practicum

**3–12 hours lab, 1–4 units
Grade Only**

Advisory: Child Development 160 or 161, each with a grade of "C" or better, or equivalent. This course provides supervised practical experience at the campus child development lab to supplement child development courses and related curriculum. Through on-site training, students gain practical knowledge in curriculum development; guidance strategies; observation; and child growth and development. This course is intended for students who plan careers in early childhood education and family support agencies or for parents who seek

strategies and techniques for guiding children. The course may be used toward the field experience component for the State of California Child Development Permit. (FT) AA/AS; CSU.

291A Child Development Center Practicum
3 hours lab, 1 unit
Grade Only

This course provides directed laboratory experience in the campus Child Development Center. Students become familiar with the operating policies and procedures of a preschool program and observe and access the development of children as they reference the participant handbook and describe the policies of the campus lab. This course may be used toward the experience component for the State of California Child Development Permit. It is intended for students who plan careers in early childhood and family support programs and for parents who seek practical experience in guiding and teaching children. (FT) AA/AS; CSU.

291B Child Development Center Practicum
3 hours lab, 1 unit
Grade Only

This course provides directed laboratory experience in the campus Child Development Center. Students examine children's development, their safety, health, and their nutritional needs in a preschool setting with an emphasis on implementation with young children. This course may be used toward the experience component for the State of California Child Development Permit and toward the Health and Safety training requirements for Title 22. It is intended for students who plan careers in early childhood education and family support programs and for parents who seek practical experience in guiding and teaching children. (FT) AA/AS; CSU.

291C Child Development Center Practicum
3 hours lab, 1 unit
Grade Only

This course provides directed laboratory experience in the campus Child Development Center. Emphasis is placed on early education teaching techniques and selection of curriculum activities for children that are developmentally appropriate. This course may be used toward the experience component for the State of California Child Development Permit. It is intended for students who plan careers in early childhood and family support programs and for parents who seek practical experience in guiding and teaching children. (FT) AA/AS; CSU.

291D Child Development Center Practicum
3 hours lab, 1 unit
Grade Only

This course provides directed laboratory experience in the campus Child Development Center. Students examine effective routines and transitional activities in the organization and structure of an early child development setting. The class emphasizes positive guidance techniques for young children, and the selection of equipment and materials for young children that are developmentally age appropriate. This course may be used toward the field experience component for the State of California Child Development Permit. It is intended for students who plan careers in early childhood and family support programs and for parents who seek practical experience in guiding and teaching children. (FT) AA/AS; CSU.

Communication Studies (COMS)

101 Voice and Articulation
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Speech Communications 101.

This course is designed to improve vocal production and the articulation, enunciation, and pronunciation of words. Emphasis is placed on sound production, voice quality, volume, pitch and expressiveness. This course is intended for communications studies majors and anyone involved in theatre, sales, public services or other professions. (FT) AA/AS; CSU; UC.

103 Oral Communication
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Speech 103. This course is an introduction to speechmaking. Emphasis is placed on the skills required to organize and deliver various types of speeches. Students

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 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

give several speeches with and without visual aids. This course is designed for Communication Studies majors and for students interested in honing their speech skills. (FT) AA/AS; CSU; UC; C-ID COMM 110.

104 Advanced Public Communication
3 hours lecture, 3 units
Grade Only

Prerequisite: Communication Studies 103 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Speech Communications 104.

This course covers theory, practice, and critical analysis of public communication, including speeches on subjects of current interest both local and global. It includes an introduction to the relationship between rhetorical theory and criticism and rhetorical practice in public communication. Special emphasis is placed on advanced platform speaking and limited preparation speaking. This course is designed for students majoring in communication studies or anyone interested in advancing fundamental speech skills. (FT) AA/AS; CSU; UC.

111 Oral Interpretation
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Speech Communications 111.

This course is a practical study of the art of oral interpretation. Emphasis is placed on developing a foundation for critical analyses of literature in order to enhance spoken interpretation of prose, poetry, dramatic monologue and duo. This course is designed for communication studies and drama majors as well as anyone interested in improving their oratory skills. (FT) AA/AS; CSU.

135 Interpersonal Communication
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Speech 135.

This course is a study of effective interpersonal skill development and practice in oral and written communication. Emphasis is placed on the personal, situational, and cultural influences of interaction. Topics include human perception, interpersonal dynamics, listening, conflict management, and verbal and nonverbal symbol systems. The course is

intended for students who communicate in one-on-one situations, including communication, fashion, allied health, public service, and business majors as well as those interested in further development of effective interpersonal skills in work, volunteer, and personal environments. (FT) AA/AS; CSU; UC; C-ID COMM 130.

160 Argumentation
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Communication Studies 103 with a grade of "C" or better, or equivalent

Limitation on Enrollment: This course is not open to students with previous credit for Speech Communications 160.

This course is a study of argumentation. Emphasis is placed on research, analysis of propositions, testing of evidence, construction of the brief, and preparation for presentation of constructive and refutation cases. This course is designed for communication studies majors and anyone interested in argumentation and debate. (FT) AA/AS; CSU; UC; C-ID COMM 120.

170 Small Group Communication
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: Communication Studies 103 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Speech Communications 170.

This course is a study of the concepts and theories related to group formation and development, and basic group communication dynamics. Students lead and participate in various forms of group discussion and activities. This course is designed for communication studies and business majors as well as for anyone interested in working effectively in small group settings. (FT) AA/AS; CSU; UC; C-ID COMM 140.

180 Intercultural Communication
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Speech Communications 180.

This course is a study of communication between members of diverse cultures. This study includes how cultures, cultural identity, languages, and social patterns affect communication between ethnic and

cultural groups. Topics include interdependency in global society, verbal and nonverbal language systems, conflict styles, and contextual cultural implications. Students apply the principles of intercultural communication to contemporary cultural and global communication issues. This course is designed for communications majors and all students interested in developing intercultural communication skills. (FT) AA/AS; CSU; UC; C-ID COMM 150.

201 Communication and Community **3 hours lecture, 3 units** **Grade Only**

Prerequisite: Communication Studies 103 with a grade of "C" or better, or equivalent. This course is an overview of the academic discipline of Communication Studies, including its history, methods, processes, contexts, and fields of study. Other topics include basic models of communication, communication-related career fields, and health communication. This course is intended for Communication Studies majors or prospective majors. (FT) AA/AS; CSU; UC.

290 Independent Study **3–9 hours other, 1–3 units** **Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Obtain Permission Number from Instructor. This course is not open to students with previous credit for Speech Communications 290.

This course is for students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Computer Business Technology (CBTE)

140 Beginning Microsoft Excel **1.5 hours lecture, 1.5 hours lab, 2 units** **Grade Only**

Advisory: Computer Business Technology 114 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Computer Business Technology 140A or Computer Business Technology 143.

This course is intended for students, office support personnel, and business owners who require a competency in performing tasks in Microsoft Excel. Students receive hands-on instruction on how to create, modify, and enhance workbooks, charts, and formulas. (FT) AA/AS; CSU.

143 Intermediate Microsoft Excel **2 hours lecture, 3 hours lab, 3 units** **Grade Only**

Advisory: Computer Business Technology 114 with a grade of "C" or better, or equivalent.

This course is designed for students preparing for a career or job in which a competency in intermediate-to-advanced Excel functions is required to perform daily tasks. Students receive hands-on instruction on charts, PivotTables, PivotCharts, functions, formulas, data validation, autofilters, what-if analyses, templates, macros, Visual Basic for applications, and integration of Excel with other programs. (FT) AA/AS; CSU.

164 Introduction to Microsoft Outlook **.75 hours lecture, .75 hours lab, 1 unit** **Grade Only**

This course is an introduction to the features of Microsoft Outlook. Students learn how to manage messages, schedule appointments, organize and manage tasks and contact lists, and customize Outlook. This course is designed for students intending to use Microsoft Outlook for academic,

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AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

professional, and/or personal purposes. (FT) AA/AS; CSU.

180 Microsoft Office

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: Computer Business Technology 114 with a grade of "C" or better, or equivalent.

This course is designed for students interested in an overview and basic working knowledge of Microsoft Office Professional suite for personal and/or professional purposes. Emphasis is placed on word processing, spreadsheet, database, and presentations, and the integration of data within and between the programs. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Computer and Information Sciences (CISC)

150 Introduction to Computer and Information Sciences

**3 hours lecture, 3 units
Grade Only**

This course is a survey of computers, computer systems and information sciences. Emphasis is placed on the use of computers in business and technical fields. Topics include computer equipment and programming systems, systems study, design, development, and implementation. The course also explores careers in the computer science field. This course is intended for all students interested in computers and how to use them. (FT) AA/AS; CSU.

179 Introduction to Python Programming

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Advisory: Computer and Information Sciences 181 with a grade of "C" or better, or equivalent.

This is an introductory course in programming using the Python language and incorporating the fundamentals of object oriented programming. Topics include the use and programming of the mouse, windows, forms, menus, dialog boxes,

icons, buttons, text fields, files, graphics, and other components of the Windows environment. Students learn to analyze user needs and requirements; design the user interface; assign properties to objects in the user interface; code event procedures; test and debug completed programs and applications; and complete final user documentation. This course is intended for Computer and Information Sciences majors or anyone interested in the Python programming language. (FT) AA/AS; CSU; UC.

181 Principles of Information Systems

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

This course is an introduction to basic principles and theory relating to problem solving and analysis in business organizations using computers and software packages. Emphasis is placed on computer organization, data processing systems, decision support systems, and systems analysis. Business software is reviewed with an emphasis on spreadsheet systems including hands-on spreadsheet applications. This course is intended for the transfer student planning to major in business, economics, or social science. (FT) AA/AS; CSU; UC.

183 Web Development with Ruby on Rails

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Advisory: Computer and Information Sciences 179, Computer and Information Sciences 186, Computer and Information Sciences 190, or Computer and Information Sciences 192, each with a grade of "C" or better, or equivalent.

This course is an introduction to creating dynamic web applications that interact with databases using Ruby on Rails. Topics include development of both static and dynamic web pages, user interaction, as well as database connectivity. This course is designed for students who are interested in web application development. (FT) AA/AS; CSU.

186 Visual Basic Programming

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Prerequisite: Computer and Information Sciences 181 with a grade of "C" or better, or equivalent.

This course is an introduction to programming using Visual Basic employing the fundamentals of event oriented programming in a Windows environment. Topics include the use and programming of a mouse, windows, forms, menus, dialog boxes, icons, buttons,

text fields, files, graphics, and other components of a Windows environment in Visual Basic. This course is intended for students majoring in computer science or anyone interested in computer programming. (FT) AA/AS; CSU; UC.

187 Data Structures in C++
3 hours lecture, 3 hours lab, 4 units
Grade Only

Prerequisite: Computer and Information Sciences 192 with a grade of "C" or better, or equivalent. This course introduces students to data structures and object-oriented software engineering. Emphasis is placed on implementing basic data structures, including collections and linked structures (stacks, queues, lists, arrays, trees, and hash tables) from the perspective of object-oriented programming. Topics include algorithms, object-oriented analysis, and the design and implementation of data structures in C++. This course is designed for students majoring in computer information systems and professionals in the field who want to update their programming skills. (FT) AA/AS; CSU; UC; C-ID COMP 132.

190 Java Programming
3 hours lecture, 3 hours lab, 4 units
Grade Only

Advisory: Computer and Information Sciences 186, Computer and Information Sciences 106, Computer and Information Sciences 150, Computer and Information Sciences 181, or Computer and Information Sciences 182, each with a grade of "C" or better, or equivalent. This course is an introduction to programming using Java. The course covers the fundamentals of object-oriented programming utilizing the Java programming language for general purpose business programs and interactive games. This course is intended for students majoring in computer and information sciences or anyone interested in the Java programming language. (FT) AA/AS; CSU; UC; C-ID COMP 122.

192 C/C++ Programming
3 hours lecture, 3 hours lab, 4 units
Grade Only

Advisory: Computer and Information Sciences 186 with a grade of "C" or better, or equivalent. This course presents basic programming concepts using the C++ programming language. The organization of standard Input/Output (I/O) classes is emphasized. Structured- and object-oriented programming techniques are presented and used

to design and implement a variety of programming problems. This course is intended for students majoring in computer science or anyone interested in computer programming. (FT) AA/AS; CSU; UC.

193 Microsoft C# Software Engineering 1
3 hours lecture, 3 hours lab, 4 units
Grade Only

This course applies industry-standard software engineering principles to the study of the object-oriented, general purpose programming language Microsoft C#, a member of the Microsoft Visual Studio.NET software development toolset. Coverage includes the typical topics of an introductory programming course. Extensive hands-on training is included in the laboratory sessions. This course is designed for students pursuing a degree in Computer Science or Information Systems and for vocational/professional students who are updating their programming skills set. (FT) AA/AS; CSU; UC.

201 Advanced C++ Programming
3 hours lecture, 3 hours lab, 4 units
Grade Only

Prerequisite: Computer and Information Sciences 192, and Computer and Information Sciences 205, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Computer And Information Sciences 196.

This course is an advanced hands-on study of the C++ language programming best practices currently used in the industry. Emphasis is placed on generic programming through the use of templates and object-oriented programming. Robust and reliable coding practices are promoted through the disciplined use of exception handling and unit testing. This course is designed for computer science students and anyone interested in advancing their C++ programming skills. (FT) AA/AS; CSU; UC.

205 Object Oriented Programming using C++
3 hours lecture, 3 hours lab, 4 units
Grade Only

Prerequisite: Computer and Information Sciences 192 with a grade of "C" or better, or equivalent.

(FT) = A field trip may be required for this course.
 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

This course introduces students to Object Oriented Programming (OOP) using the C++ programming language. Emphasis is placed on essential concepts related to OOP, including use of classes and objects, inheritance, templates, polymorphism, pointers and references, and input/output (I/O) streams. This course is intended for students majoring in computer information technology and all students interested in OOP. (FT) AA/AS; CSU; UC.

220 Fundamentals of Computer Game Programming

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Advisory: Computer and Information Sciences 179, Computer and Information Sciences 187, Computer and Information Sciences 190, Computer and Information Sciences 192 or Computer and Information Sciences 193, each with a grade of "C" or better, or equivalent.

This course introduces software programmers to the design and development of simple graphical computer-based games. The course may use Java or C# as the programming language of choice. Emphasis is placed on developing games in a team environment, designing logical games that satisfy player needs, and ensuring that games are of high quality through use of software engineering best practices and proper testing. This course is for students with some previous software programming experience. (FT) AA/AS; CSU; UC.

221 Intermediate Computer Game Programming

**3 hours lecture, 3 hours lab, 4 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Computer and Information Sciences 220 with a grade of "C" or better, or equivalent.

This course covers the field of software game program development. Students work as a team to design and build a complex software game. Students learn more complex elements of game construction, the constituent technologies that facilitate their development, and collaborative software development and integration methodologies. This course is designed for students interested in furthering their knowledge in software game development. (FT) AA/AS; CSU.

270 Work Experience

**54–216 hours other, 1–4 units
Grade Only**

Limitation on Enrollment: Obtain permission number-Work Exp. Coordinator.

This course provides on-the-job learning experiences for students employed in a job or internship related to an occupational major. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring or interested in an occupational field of study. This course is intended for students majoring or interested in an occupational field of study. AA/AS; CSU.

290 Independent Study

**3–9 hours other, 1–3 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, special problems or projects, or other learning activities in the field of computer and information sciences. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: problem analyses, engaging in primary research, and preparing reports. AA/AS; CSU.

450 Security Analytics and Visualization

**2.25 hours lecture, 2.25 hours lab, 3 units
Grade Only**

Prerequisite: Computer and Information Sciences 179 with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Mathematics 119 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a study of the process of using data collection, aggregation, and analysis tools for security monitoring and threat detection. Emphasis is placed on essential technical knowledge used for predictive analytics and the visualization of information to detect behaviors that indicate malicious activity. Topics include predictive modeling, data analytics, machine learning,

automation, and understanding data through graphical representation. This course is designed for students in the Cyber Defense and Analysis program. Baccalaureate Degree Credit.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Conflict Resolution (CRES)

101 Conflict Resolution and Mediation

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course explores conflict resolution and mediation in an interdisciplinary manner by an analysis of how conflict is generated, escalated, resolved and transformed in various settings. Students explore theories of conflict resolution and mediation and apply these fundamental concepts in interpersonal and intergroup conflicts. Emphasis is placed upon allowing the students to assess and improve their own ways of responding to conflict by the study and practice of various processes of conflict intervention. This course is intended for students interested in Conflict Resolution and Mediation, Communication Studies, Anthropology, Social Services, Counseling, Human Services, Peace Studies, Psychology, Business, Sociology and other related fields. (FT) AA/AS; CSU; UC.

102 Mediation Skills

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Conflict Resolution 101 with a grade of “C” or better, or equivalent.

This introductory course is designed to provide students with the framework and analytical skills needed to conduct mediation. Mediation is a process by which parties submit their dispute to a neutral third party who works with them to

reach a mutually agreeable settlement. Emphasis is placed on the mediation process, the role of the mediator, communication and listening skills, and the human dynamics of conflict. The role of the mediator is to assist disputing parties in reaching a peaceful, just and equitable resolution to a conflict. This course is intended for students interested in Conflict Resolution and Mediation, Communication Studies, Anthropology, Counseling, Peace Studies, Psychology, Business, Sociology and other related fields. (FT) AA/AS; CSU.

276 Field Work in Conflict Resolution and Mediation

**2 hours lecture, 3 hours other, 3 units
Grade Only**

Corequisite: Completion of or concurrent enrollment in Conflict Resolution 101 and 102, each with a grade of “C” or better, or equivalent.

Advisory: English 101 with a grade of “C” or better, or equivalent.

This supervised field work course enables students to gain first hand experience in Conflict Resolution and Mediation. Students develop professional skills while contributing their time and talents to a local organization thus enhancing the students’ resume and work experience. Emphasis is placed on providing students with the chance to explore the various career choices through placement in a professional setting working in the field of Conflict Resolution and Mediation. Students meet regularly with faculty and peers to receive feedback, support and guidance in their community projects. This course is intended for students interested in Conflict Resolution and Mediation. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

Construction Systems (CONS)

60A Construction Systems - Introduction to HVAC I

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 301.

In this course, trade mathematics and drawings, the tools of the trade, blueprint terminology and basic rigging equipment and procedures as applicable to HVAC are covered. This course is designed to give the construction HVAC student an understanding of copper and plastic piping practices. (FT) AA/AS.

60B Construction Systems - Introduction to HVAC II

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 60A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 302.

This course introduces the construction HVAC trainee to the basic concepts and environmental concerns related to heating, ventilation and air conditioning, including: soldering, brazing, ferrous metal piping practices, basic electricity, heating and cooling. This course also describes the HVAC program and the career opportunities available in the HVAC trade. (FT) AA/AS.

61A Construction Systems - Intermediate HVAC I

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 60B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 303.

This course instructs the HVAC trainee in the properties of air, and covers chimneys, flues and vents. Students are introduced to basic mechanical procedures commonly performed in HVAC service

work, such as the operation, installation and servicing of electric furnaces. This course also introduces the student to alternating current and electronic components and circuits used in HVAC systems. (FT) AA/AS.

61B Construction Systems - Intermediate HVAC II

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 61A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 304.

This course instructs the HVAC trainee in HVAC controls and metering devices and introduces the trainee to control circuit analysis. This course also covers compressors and heat pumps and instructs the student in leak detection, evacuation, recovery and charging service procedures used to troubleshoot, repair and/or maintain proper operation of the mechanical refrigeration system. (FT) AA/AS.

62A Construction Systems - Advanced HVAC I

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 61B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 305.

This course instructs the HVAC trainee in preventive maintenance and provides an introduction to troubleshooting applying to all types of HVAC equipment. This course also covers troubleshooting electronic controls, gas heating, electric heating and oil heating. (FT) AA/AS.

62B Construction Systems - Advanced HVAC II

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 62A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 306.

This course instructs the HVAC trainee in troubleshooting cooling, accessories, heat pumps and commercial heating and cooling systems. This course also covers water and air balance, steam systems and customer relations. (FT) AA/AS.

63A Construction Systems - HVAC Specialties I

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 62B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 307.

This course covers advanced blueprint reading and specifications as they relate to HVAC, indoor air quality and energy conservation equipment commonly used in HVAC systems. This course also covers energy management systems and the methods of water treatment and water treatment equipment used with HVAC systems. (FT) AA/AS.

63B Construction Systems - HVAC Specialties II

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 63A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Heating, Ventilation, Air Conditioning Apprenticeship (HVAC) 308.

This course covers commercial heating and cooling systems, maintenance of these systems and system start-up and shut down. This course also covers commercial and industrial refrigeration systems, equipment, refrigerated warehouses, walk-in coolers display cases, etc. (FT) AA/AS.

70A Construction Systems - Introduction to Low Voltage Building Systems I

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Construction Electronic Systems Technician 301A.

This course provides the Construction Systems - Low Voltage Building Systems student with instruction in general construction site safety, measurements and formulas, use of hand and power tools, interpretation of blueprints, basic rigging techniques

and methods used to move equipment and materials. AA/AS.

70B Construction Systems - Introduction to Low Voltage Building Systems II

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 70A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Construction Electronic Systems Technician 301B.

This course provides the Construction Systems - Low Voltage Building Systems student with instruction in industry standards, and building codes, residential and commercial construction methods, basic electrical theory, electrical meters, OSHA safety standards, and ladders and rigging. (FT) AA/AS.

71A Construction Systems - Intermediate Low Voltage Building Systems I

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 70B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Construction Electronic Systems Technician 302A.

This course provides the Construction Systems - Low Voltage Building Systems student with instruction in mathematics related to the trade, electronic theory, electronic measurement tools and techniques, AC and DC electrical systems and grounding, and blueprint reading related to the trade. (FT) AA/AS.

71B Construction Systems - Intermediate Low Voltage Building Systems II

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 71A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Construction Electronic Systems Technician 302B.

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This course provides the Construction Systems - Low Voltage Building Systems student with instruction in types of cabling, switches and relays, terminating conductors, low-voltage codes and standards, and computer cabling applications. (FT) AA/AS.

72A Construction Systems - Advanced Low Voltage Building Systems I

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 71B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Construction Electronic Systems Technician 303A.

This course provides the Construction Systems - Low Voltage Building Systems student with instruction in wire and cable selection, advanced buses and networks, fiber optic installation, cable and satellite television systems, and wireless communications. (FT) AA/AS.

72B Construction Systems - Advanced Low Voltage Building Systems II

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Construction Systems 72A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Construction Electronic Systems Technician 303B.

This course provides the Construction Systems - Low Voltage Building Systems student with instruction in site survey, job planning and documentation, maintenance and repair, supervision, and fire and security alarm systems. (FT) AA/AS.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Cosmetology (COSM)

50L Fundamentals of Cosmetology

**1 hour lecture, 15 hours lab, 6 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Cosmetology 110, Cosmetology 110A and Cosmetology 110B, Cosmetology 50LA and Cosmetology 50LB, or Cosmetology 40. Special Admission - must be admitted to program. Obtain Permission Number from Instructor.

This lecture-lab course provides an integration of theoretical and practical principles and procedures at the fundamental level. Emphasis is placed on bacteriology, safety, sanitation, sterilization, preparing the work area and kit, and rules and regulations as required for the licenser in the state of California. Topics include draping, shampooing, conditioning, haircutting, wet hairstyling, manicuring, pedicuring, and facials. This course is for students interested in becoming a cosmetologist and is intended to prepare them for the California State Board of Barbering and Cosmetology licensure. (FT) AA/AS.

55 Esthetician I

**2.5 hours lecture, 2.5 units
Grade Only**

Corequisite: Completion of or concurrent enrollment in Cosmetology 55L with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is an introduction to the theoretical knowledge required to enter the field of esthetics as a licensed esthetician. Emphasis is placed on the basic sciences of physiology, chemistry, and electricity as they apply to skin science, skin care, and professional esthetics. Topics include career and licensure planning and the fundamentals of the salon business, skin care products, and esthetic services. This course is designed for students interested in esthetics or a career as a licensed professional in the industry. (FT) AA/AS.

55L Esthetician I Lab**19.5 hours lab, 6.5 units
Grade Only**

Corequisite: Completion of or concurrent enrollment in Cosmetology 55 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This laboratory course is an introduction to the practical knowledge, skills, and techniques required to enter the field of esthetics as a licensed esthetician. Emphasis is placed on applying basic principles of physiology, chemistry, electricity, and skin science to practice in client consultations, skin analyses, product assessments, facial treatments, and other basic professional esthetic services. Topics include establishing basic esthetic professionalism and performing fundamental esthetic services. This course is designed for students interested in esthetics or a career as a licensed professional in the industry. (FT) AA/AS.

60L Intermediate Cosmetology**1 hour lecture, 15 hours lab, 6 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Cosmetology 120, Cosmetology 120A and Cosmetology 120B, Cosmetology 60LA and Cosmetology 60LB or Cosmetology 42A. Obtain Permission Number from Instructor. Special Admission - must be admitted to program.

This lecture-lab course provides an integration of theoretical and practical principles and procedures at the intermediate level. Emphasis is placed on sanitation, safety, client protection, and demonstrations and hands-on work with models. Topics include razor cutting, basic hair coloring techniques, chemical texture services, manicure tips, and thermal styling as well as hair removal, including eyebrow waxing and arching. This course is for students interested in becoming a cosmetologist and is intended to prepare them for the California State Board of Barbering and Cosmetology licensure. (FT) AA/AS.

65 Esthetician II**2.5 hours lecture, 2.5 units
Grade Only**

Prerequisite: Cosmetology 55 with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Cosmetology 65L with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a continuation of the theoretical knowledge required to enter the field of esthetics as a licensed esthetician. Emphasis is placed on an in-depth examination of the body and its systems as they relate to skin health, intermediate esthetic techniques, speciality facials and devices, spa and alternative therapies, and medical esthetics. Topics include analyses of skin care products, botanicals and aromatherapy, Ayurveda theory and treatments, and business and marketing skills required in the esthetician field. This course is designed for students interested in esthetics or a career as a licensed professional in the industry. (FT) AA/AS.

65L Esthetician II Lab**19.5 hours lab, 6.5 units
Grade Only**

Prerequisite: Cosmetology 55L with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Cosmetology 65 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This laboratory course is a continuation of the fundamental knowledge, skills, tools, and techniques required to enter the field of esthetics as a licensed esthetician. Emphasis is placed on applying the in-depth knowledge of the body and its systems as they relate to skin health to practice intermediate esthetic techniques, speciality facials and devices, spa and alternative therapies, and medical esthetics. Topics include practice with skin care products, botanicals and aromatherapy, Ayurveda theory and treatments, and business and marketing skills required in the esthetician field. This course is designed for students interested in esthetics or a career as a licensed professional in the industry. (FT) AA/AS.

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Milestone formerly referred to as Skill Level

70L Intermediate-Advanced Cosmetology
1 hour lecture, 15 hours lab, 6 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Cosmetology 42B, Cosmetology 130, Cosmetology 130A and Cosmetology 130B, Cosmetology 70LA and Cosmetology 70LB or Cosmetology 42B. Obtain Permission Number from Instructor. Special Admission - must be admitted to program. This lecture-lab course provides an integration of theoretical and practical principles and procedures at the intermediate-advanced level. Emphasis is placed on sanitation, safety, client protection, and chemical services on clients. Topics include clipper cutting, advanced long hair dressing, hair extensions, permanent wave, soft curl permanent waving, chemical straightening, thermal pressing and curling, advanced chemical hair coloring techniques, including weaving, low-lighting, and balayage, acrylic and gel nail techniques, as well as makeup application, including lash application techniques and eyebrow and lash tinting. This course is for students interested in becoming a cosmetologist and is intended to prepare them for the California State Board of Barbering and Cosmetology licensure. (FT) AA/AS.

75 Advanced Makeup
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment. This course is a study in advanced makeup application techniques. Emphasis is placed on makeup history and the use of makeup for different occasions. Topics include advanced makeup application, eyelash enhancement, and airbrushing. This course is intended for students majoring in cosmetology, esthetics, dramatic arts, and anyone interested in advanced makeup techniques. (FT) AA/AS.

80L Advanced Cosmetology
1 hour lecture, 15 hours lab, 6 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Cosmetology 140, Cosmetology 140A and Cosmetology 140B, Cosmetology 80LA and Cosmetology 80LB or Cosmetology 42C. Obtain Permission Number from

Instructor. Special Admission - must be admitted to program.

This lecture-lab course provides an integration of theoretical and practical principles and procedures at the advanced level. Emphasis is placed on sanitation, safety, client protection, advanced services on clients, and marketing strategies to support professional and employment goals. Topics include total looks, preparing for state board licensing, and compiling a portfolio of personal work. This course is for students interested in becoming a cosmetologist and is intended to prepare them for the California State Board of Barbering and Cosmetology licensure. (FT) AA/AS.

83 Barbering Conversion
2 hours lecture, 12 hours lab, 6 units
Grade Only

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment. This course focuses on technical instruction and practical training in barbering. Emphasis is placed on hair dressing, health and safety, and shaving. This course is intended for students majoring in cosmetology and barbering. Students who complete this course are eligible to apply for the California State Board of Barbering and Cosmetology Barber licensing exam. (FT) AA/AS.

85 Nail Technician I
1.5 hours lecture, 12 hours lab, 5.5 units
Grade Only

This lecture-lab course provides an integration of theoretical and practical principles and procedures at the fundamental level. Emphasis is placed on bacteriology, infection control, safety practices, preparing the work area and kit, and rules and regulations as required for the licenser in the state of California. Topics include basic anatomy of the hand, foot, and nails, reflexology, and manicuring and pedicuring fundamentals to include client consultation, massage, and the use of nail equipment and implements. This course is designed for students interested in nail technology or a career as a licensed professional in the industry. (FT) AA/AS.

86 Nail Technician II
1.5 hours lecture, 12 hours lab, 5.5 units
Grade Only

Prerequisite: Cosmetology 85 with a grade of "C" or better, or equivalent.

This lecture-lab course provides an integration of theoretical and practical principles and procedures at the intermediate level. Emphasis is placed on the in-depth examination of the chemistry of skin and nails and its systems as they relate to skin and nail health, infection control, safety protocols, and manicuring and pedicuring services to include nail enhancements and nail art and trends. Topics include analysis of chemicals, ingredients, and solutions used in the industry as well as business and marketing skills required to be a self-employed or employed nail technician. This course is designed for students interested in nail technology or a career as a licensed professional in the industry. (FT) AA/AS.

92 Extended Laboratory Practice
3–9 hours lab, 1 hour other, 1–3 units
Pass/No Pass

Prerequisite: Cosmetology 80L with a grade of “C” or better, or equivalent.

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment.

This course is continued laboratory practice for advanced cosmetology students who need to complete the number of hours mandated for examination and for licensure by the California State Board of Cosmetology. Emphasis is placed on client services (including chemical and non-chemical services) and an exploration of all types of hair texture. Topics include communication skills, professionalism and support in student employment goals. This course is designed for students planning a career as a licensed, professional Cosmetologist. AA/AS.

93 Esthetician Extended Lab
3 hours lab, 1 unit
Grade Only

Prerequisite: Cosmetology 65 and 65L, each with a grade of “C” or better, or equivalent.

This is a laboratory course for intermediate esthetician students who need to complete the number of hours mandated for examination and licensure by the California State Board of Cosmetology. Emphasis is placed on applying intermediate esthetic techniques on salon and spa clients. Topics include practice in client consultations, skin care products assessments, facial treatments, hair removal, makeup application, and business and marketing skills required in the esthetician field. This course is designed for students

interested in esthetics or a career as a licensed professional in the industry. (FT) AA/AS.

94A Cosmetology Teacher Training Program I
3.5 hours lecture, 3 hours lab, 4.5 units
Grade Only

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: Student must have a valid California Cosmetology License. This course is not open to students with previous credit for Cosmetology 152A or Cosmetology 91A.

This course is offered for the experienced/licensed cosmetologist to become a qualified cosmetology instructor. Training for the course consists of practical and theoretical principles of effective teaching methods, which include lesson planning, oral presentations, evaluations, test construction, and procedures to ensure environmental health and safety. Emphasis is focused on preparation for prospective employment in private and public cosmetology schools. (FT) AA/AS.

94B Cosmetology Teacher Training Program II
3.5 hours lecture, 3 hours lab, 4.5 units
Grade Only

Prerequisite: Cosmetology 94A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: Student must have a valid California Cosmetology License. This course is not open to students with previous credit for Cosmetology 152B or Cosmetology 91B.

This course is offered for the experienced/licensed cosmetologist to become a qualified cosmetology instructor. Phase II of the Cosmetology Teacher Training program provides the trainee with an opportunity to acquire additional skills, expand career options, workplace skill competencies, and subject mastery skills necessary for teaching the practical aspects of cosmetology science. Emphasis is focused on preparation for prospective employment in private and public cosmetology schools. AA/AS.

(FT) = A field trip may be required for this course.
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 Milestone formerly referred to as Skill Level

290 Independent Study in Cosmetology

Hours by Arrangement, 1–3 units Grade Only

Limitation on Enrollment: Must obtain a permission number from instructor for registration.

This course is designed to deal with current problems and topics of special interest in cosmetology. AA/AS.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Cyber Defense and Analysis (CYDA)

400 Emerging Technology and Cybersecurity

3 hours lecture, 3 units Grade Only

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is an exploratory study of new, emerging, and developing technologies in cyber defense operations. Emphasis is placed on both operational theory and designing and deploying technological solutions to combat evolving cyber threats. Topics include Zero Trust and Secure Access Service Edge (SASE) architectures, Artificial Intelligence (AI) and Machine Learning (ML), Automation, 5G networks, and Internet of Things (IoT). This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

410 Modern Cryptography

36 - 40.5 hours lecture, 36 - 40.5 hours lab, 3 units Grade Only

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a study of the theoretical foundations of cryptosystems used in the real world. Emphasis is placed on common cryptographic objects to get a better understanding of various cryptographic primitives, algorithms, attacks, and protocols. Topics include an introduction to classic cryptography, properties of private key (symmetric) and public

key (asymmetric) cryptography, hashing, and digital signature schemes. This course is designed for students in the Cyber Defense and Analysis program. Baccalaureate Degree Credit.

420 Applied Network Security Monitoring (NSM)

36 - 40.5 hours lecture, 36 - 40.5 hours lab, 3 units Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a hands-on study of methodologies used to analyze network traffic in order to identify intrusions. Emphasis is placed on the theoretical and practical analysis of network activity to deem if it is noteworthy or a false indication of breach. Topics include common application protocols, analyzing network behavior to detect breaches, strengths and limitations of intrusion detection systems (IDS) and other monitoring tools as well as visualizing data traffic to identify patterns and anomalies. This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

440 Deconstructing Malware

36 - 40.5 hours lecture, 36 - 40.5 hours lab, 3 units Grade Only

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a hands-on study of methodologies used to reverse-engineer malicious software (malware). Emphasis is placed on the analytical ability to examine inner workings of malware in the context of forensic investigations, incident response, and systems administration. Topics include data files and browser scripts analysis, fundamental behavioral analysis of memory forensics and malware code, and concepts for reverse engineering common malware. This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

450 Network Forensics

36 - 40.5 hours lecture, 36 - 40.5 hours lab, 3 units Grade Only

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a hands-on study of methodologies used in network forensics examinations. Emphasis is placed on building practical experience through virtual lab exercises simulating real-world scenarios covering investigation and data recovery in networks. Topics include physical interception, traffic

acquisition and analysis, and wireless attacks. This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

460 Digital Forensics

**36 - 40.5 hours lecture, 36 - 40.5 hours lab, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a theoretical and practical study of methodologies used to conduct forensics examinations of digital and mobile devices. Emphasis is placed on comprehensive knowledge of digital forensics and adherence to the law. Topics include techniques used in digital investigations, root cause analysis, collection and documentation of relevant information, and legal compliance. This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

500 Cyber Incident Response

**36 - 40.5 hours lecture, 36 - 40.5 hours lab, 3 units
Grade Only**

Prerequisite: Cyber Defense and Analysis 450 and Cyber Defense and Analysis 460, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a hands-on study of methodologies used in responding to cyber incidents. Emphasis is placed on the analytical ability to identify assets and resolve network and host cybersecurity issues by applying knowledge and skills required of a cybersecurity first responder. Topics include asset identification, security control implementation, event detection and response execution, and incident and disaster recovery. This course is designed for students in the Cyber Defense and Analysis program. (Prep for CFR - DoD 8140/8570.01-M). (FT) Baccalaureate Degree Credit.

510 Disaster Response and Recovery

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a project-based study of methodologies used to ensure business continuity and protect vital operations, facilities, and assets. Emphasis is placed on the skills needed to identify mission-critical continuity needs and

develop a disaster recovery plan (DRP) to protect an organization from constant risk of disruption from cyber threats. Topics include evaluating risks and conducting business impact analysis (BIA), developing and implementing a DRP, crisis management and emergency operations as well as critical infrastructure and vital records recovery. This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

520 Cyber Threat Intelligence (CTI)

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is an interactive study of data an organization uses to understand the previous, current, and future threats targeting an organization. Emphasis is placed on theoretical and practical skills to conduct a threat intelligence program. Topics include organizational strategy and planning; data collection, analysis, and threat extractions; and informational sharing and situational awareness. This course is designed for students in the Cyber Defense and Analysis program. Baccalaureate Degree Credit.

530 Advanced Security Implementation and Management

**36 - 40.5 hours lecture, 36 - 40.5 hours lab, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a hands-on study of methodologies used in the assessment and management of risk to data and information systems. Emphasis is placed on deep technical and managerial knowledge and skills to design, develop, and manage an organization's overall security posture. Topics include security and risk management, asset security, security architecture and engineering, communication and network security, identity and access management (IAM), Security Assessment and Testing, and Security Operations as well as software development security. This course is designed for students in the

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 Milestone formerly referred to as Skill Level

Cyber Defense and Analysis program. (Prep for CISSP - DoD 8140/8570.01-M). (FT) Baccalaureate Degree Credit.

540 Critical Infrastructure and Supply Chain Protection

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is a study of theories and foundations used to achieve and assess the protection of critical infrastructure and supply chain operations. Emphasis is placed on the optimization of resources to protect key infrastructure components of a nation. Topics include network science, complexity theory, risk analysis, modeling and simulation, and individual sectors. This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

550 Systems and Network Auditing

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is an interactive study of the application of a risk-based approach to planning, executing, and reporting on audit engagements. Emphasis is placed on the skills needed to audit, control, monitor, and assess an organization's information technology (IT) and business systems. Topics include information systems (IS) auditing process; IT governance; IS acquisition, development, and implementation; operations and business resilience; and protection of information assets. This course is designed for students in the Cyber Defense and Analysis program. (Prep for CISA - DoD 8140/8570.01-M). (FT) Baccalaureate Degree Credit.

560 Operational Security Architecture

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is an in-depth study of methodologies used to design advanced security solutions using risk-based analytics. Emphasis is placed on the alignment of security architectures within the organizational context. Topics include governance, compliance, and risk management; security architecture modeling; infrastructure security; identity and access management; application

security; and security operations. This course is designed for students in the Cyber Defense and Analysis program. (Prep for CISSP-ISSAP - DoD 8140/8570.01-M). (FT) Baccalaureate Degree Credit.

570 Cyber Defense and Analysis Capstone

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: Special Admission - must be admitted to program.

This project-oriented capstone course allows students to demonstrate their capability to detect, respond, and recover from a cyber incident. The instructor-approved project challenges students to integrate skills and knowledge from all program domains into one project that deals with a significant real-world cybersecurity incident. Students present their projects to a panel. This course is designed for students in the Cyber Defense and Analysis program. Baccalaureate Degree Credit.

Dance (DANC)

Note: Dance courses may be used to fulfill the Exercise Science graduation requirement. See page 103 in the Academic Requirements section of this catalog.

112A Ballet I

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dance 110 or Dance 110A.

Ballet I is a course in fundamental ballet technique focusing on correct body alignment and placement through warm-up, alignment, barre and center exercises in preparation for ballet movements. Students analyze, discuss, and critique the intent, movement, performance and theatrical elements of ballet movements at a fundamental level. This course is designed for dance majors and all students interested in Ballet. (FT) AA/AS; CSU; UC.

112B Ballet II

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 112A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 110B.

Ballet II is a course in beginning ballet technique focusing on correct body alignment and placement

through repetition at warm-up, alignment, barre and center exercises in preparation for ballet movements. Students analyze ballet dance in comparison to another dance genre, regarding thematic content or intent, music, and theatrical elements. This course is designed for dance majors and all students interested in Ballet. (FT) AA/AS; CSU; UC.

112C Ballet III

0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option

Advisory: Dance 112B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 110C. Ballet III is a course in intermediate ballet technique focusing on correct body alignment and placement through repetition at barre, en diagonale, and center work including movement initiation and weight change. Students analyze, discuss, and critique ballet in regards to the thematic content or intent, choreographic creativity and movement, dancer’s performance abilities, and theatrical elements. This course is designed for dance majors and all students interested in Ballet. (FT) AA/AS; CSU; UC.

112D Ballet IV

0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option

Advisory: Dance 112C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 110D. Ballet IV is a course in Intermediate/Advanced ballet technique focusing on correct body alignment and placement through repetition at barre, en diagonale, and center work with an elevated level of various musical and movement textures, complex rhythms and emotional performance qualities. Students analyze, discuss, and critique ballet in regards to the thematic content or intent, choreographic creativity and movement, dancer’s technical and performance abilities, choreographic structure, lighting design, music or sound design, mood conveyed and audience response. This course is designed for dance majors and all students interested in Ballet. (FT) AA/AS; CSU; UC.

111 Global Dance Traditions

1.5 hours lecture, 1.5 hours lab, 2 units
Letter Grade or Pass/No Pass Option

This course is an introduction to multiple cultures and global dance traditions. Each tradition is examined in terms of its particular set of techniques, styles, and rhythms. Special emphasis is placed on the exploration of movement characteristics of each cultural dance form. This course is intended for dance majors and minors as well as anyone interested in dance. (FT) AA/AS; CSU; UC.

117A Tap Dance I

0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Dance 115 or Dance 115A.

This course introduces tap dance technique at the fundamental level. Instruction focuses on vocabulary, rhythms, balance studies and improvisations through warm-up, center floor combinations, rhythmic pattern exercises, in preparation for fundamental tap dance. Students explore and analyze dance styles, thematic content or intent, and theatrical elements at a fundamental level. This course is designed for dance and theater majors and all students interested in tap dance. (FT) AA/AS; CSU; UC.

117B Tap Dance II

0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option

Advisory: Dance 117A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 115B. This course introduces tap dance technique at the beginning level. Instruction focuses primarily on the rhythm tap style however, other tap styles are explored. Students practice beginning tap dance skills; rhythms, including swing and Latin; syncopation; time steps; short combinations; and stylings. The course includes an introduction to the history and performance of tap dance. This course

(FT) = A field trip may be required for this course.
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is designed for dance and theater majors and all students interested in Tap. (FT) AA/AS; CSU; UC.

117C Tap Dance III

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 117B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 115C. This Course is a course in intermediate tap technique and is designed for students who have mastered basic tap dance skills. Students focus on analyzing thematic content, and choreographic creativity in tap movement. Students explore group improvisation exercises, demonstrating active, well-timed participation and the use of interlocking rhythms. Students practice new and more complicated rhythms, movement coordination’s and skills. The course presents a variety of musical forms related to tap dance. This course is designed for dance and theater majors and all students interested in Tap. (FT) AA/AS; CSU; UC.

117D Tap Dance IV

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 117C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 115D. This is a course in advance tap dance technique. This course is designed for students who want to further their mastery of Tap dance. Focus will be on increasing the speed and accuracy of execution of master tap routines and developing improvisation techniques. This course is designed for dance and theater majors and all students interested in Tap. (FT) AA/AS; CSU; UC.

122A Hip Hop I

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dance 120 or Dance 120A.

This course is an introduction to Hip Hop dance. Emphasis is placed on fundamental Hip Hop technique and basic foundational party dances. This course is designed for dance majors and all students interested in Hip Hop dance. (FT) AA/AS; CSU; UC.

122B Hip Hop II

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 122A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 120B. This course is the second in a series of Hip Hop dance courses. Emphasis is placed on beginning Hip Hop technique, rhythms, and styles. This course is designed for dance majors and all students interested in Hip Hop dance. (FT) AA/AS; CSU; UC.

122C Hip Hop III

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 122B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 120C. This is the third in a series of Hip Hop dance courses. Emphasis is placed on intermediate Hip Hop dance technique, choreography, and breakin’ foundations. This course is designed for dance majors and all students interested in Hip Hop dance. (FT) AA/AS; CSU; UC.

122D Hip Hop IV

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 122C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 120D. This course is the fourth in a series of Hip Hop dance courses. Emphasis is placed on intermediate/advanced Hip Hop dance technique, complex choreography, and cypher freestyling. This course is designed for dance majors and all students interested in Hip Hop dance. (FT) AA/AS; CSU; UC.

125A Latin American Dance I

**0.5 hours lecture, 1.5–3 hours lab, 1–1.5 units
Letter Grade or Pass/No Pass Option**

Latin American Dance I is a beginning level survey course in a variety of established and emerging partnered dances of Latin American origin with an emphasis on Salsa dance and introductory techniques, styles, rhythms, leading or following skills, movement patterns and history of selected Latin dances. This course is designed for students who wish to explore dances from other cultures and partnered dance. (FT) AA/AS; CSU; UC.

125B Latin American Dance II**0.5 hours lecture, 1.5–3 hours lab, 1–1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 125A with a grade of “C” or better, or equivalent.

Latin American Dance II is an advanced beginning to intermediate survey course in a variety of established and emerging partnered dances of Latin American origin with an emphasis on Salsa dance, including leading and following, intermediate Salsa styling, technique, variations, and history. When this course is offered for three hours a week, additional time is utilized in practice and perfection of movement variations and styling. This course is designed for students who wish to explore dance movements from other cultures and partnered dance. AA/AS; CSU; UC.

127 Movement for Wellness**1.5 hours lecture, 1.5 hours lab, 2 units****Letter Grade or Pass/No Pass Option**

This course builds on basic concepts of anatomy, physiology, and kinesiology to introduce traditional and non-traditional approaches to movement and injury prevention. Emphasis is placed on the following modalities: Yoga, Pilates, breath support, mindfulness meditation, Tai Chi and Qi Gong, foam roller, and theraband. Students are also introduced to Feldenkrais, Alexander Technique, and Bartenieff fundamentals. Student skills and proficiencies are enhanced by supervised repetition of various body modalities techniques, alignment and core stabilization, and body connections. This course is intended for dance majors and all students interested in wellness through movement. (FT) AA/AS; CSU.

130A Dance Repertoire**3 hours lab, 1 unit****Grade Only**

Advisory: Dance 112A, Dance 137A or Dance 142A, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 130.

This course is an introduction to the choreography of renowned choreographers. Emphasis is placed on performing selected choreography in ballet, modern, jazz, tap, and musical theater. This course is intended for dance majors and minors as well as all students interested in dance. (FT) AA/AS; CSU; UC.

137A Jazz Dance I**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dance 135 or Dance 135A.

This course is an introduction to jazz dance. Emphasis is placed on fundamental jazz dance technique, vocabulary, and performance concepts. This course is designed for dance majors and all students interested in jazz dance. (FT) AA/AS; CSU; UC.

137B Jazz Dance II**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 137A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 135B. This course is the second in a series of Jazz dance courses. Emphasis is placed on beginning Jazz dance technique, turns, rhythms and styles. This course is designed for dance majors and all students interested in Jazz dance. (FT) AA/AS; CSU; UC.

137C Jazz Dance III**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 137B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 135C. This course is the third in a series of Jazz dance courses. Emphasis is placed on intermediate Jazz dance technique, turns, rhythms and styles. This course is designed for dance majors and all students interested in Jazz dance. (FT) AA/AS; CSU; UC.

137D Jazz Dance IV**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 137C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 135D.

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This course is the fourth in a series of Jazz dance courses. Emphasis is placed on advanced Jazz dance technique, turns, rhythms and styles. This course is designed for dance majors and all students interested in Jazz dance. (FT) AA/AS; CSU; UC.

142A Modern Dance I

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dance 140, Physical Education 140, or Dance 140A.

This course is an introduction to modern dance. Emphasis is placed on fundamental modern dance vocabulary, concepts, and techniques. Students are introduced to basic elements of choreography and history of early modern dance contributors. This course is designed for dance majors and all students interested in modern dance. (FT) AA/AS; CSU; UC.

142B Modern Dance II

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 142A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 140B.

This course is the second in a series of modern dance courses. Emphasis is placed on beginning dance vocabulary, concepts, and techniques. Students manipulate elements of choreography and are introduced to basic anatomy. Topics include perspectives on modern dance history and techniques, with a focus on second generation dance artists and an introduction to African-American artists. This course is designed for dance majors and minors as well as students interested in modern dance. (FT) AA/AS; CSU; UC.

142C Modern Dance III

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 142B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 140C.

This course is the third in a series of modern dance courses. Emphasis is placed on intermediate dance vocabulary, concepts, techniques, and anatomy. Students manipulate elements of choreography and rhythmic studies in movement. Topics include perspectives on modern dance history and techniques with a focus on third generation modern

dance artists and an introduction to post-modern concepts. This course is designed for dance majors and minors as well as students interested in modern dance. (FT) AA/AS; CSU; UC.

142D Modern Dance IV

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 142C with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 140D.

This course is the fourth in a series of modern dance courses. Emphasis is placed on intermediate-advanced dance vocabulary, concepts, technique, and anatomy. Students manipulate and refine elements of choreography and rhythmic studies in movement. Topics include perspectives on modern dance history and techniques with a focus on contemporary modern dance artists. This course is designed for dance majors and minors as well as all students interested in modern dance. (FT) AA/AS; CSU; UC.

145A Ballroom Dance I

**0.5 hours lecture, 1.5 - 3 hours lab, 1-1.5 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dance 145.

Ballroom Dance is an introductory course focusing on the fundamentals of partner dance and basic steps in a variety of social and ballroom dance genres. Emphasis is placed on basic kinesthetic concepts of connection to partner with correct body placement and physical compression as it pertains to either leading or following. Dance analysis will include exploration of dance style, thematic content or intent, and theatrical elements. This course is designed for dance and drama majors, as well as students who wish to explore historical dance. (FT) AA/AS; CSU; UC.

145B Ballroom Dance II

**0.5 hours lecture, 1.5 - 3 hours lab, 1-1.5 units
Letter Grade or Pass/No Pass Option**

Advisory: Dance 145A with a grade of "C" or better, or equivalent.

Ballroom Dance II is the second in a series of ballroom dance courses focusing on partner dance and steps. Emphasis is placed on frame, style, partnering technique and variations in a variety of ballroom genres at the beginning through intermediate level, including concepts of connection

to partner with correct body placement and physical compression as it pertains both leading and following. Dance analysis will include exploration of dance style, thematic content or intent, music, mood conveyed and theatrical elements. This course is designed for dance and drama majors, as well as students who wish to explore historical dance. (FT) AA/AS; CSU; UC.

150A Dance Making: Ballet

**3 hours lab, 1 unit
Grade Only**

Advisory: Dance 253 and Dance 112A, or Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 150. This course is a practical exploration of the processes and elements used in the art of dance making in the area of Ballet. Within a workshop format, students work under close faculty supervision to research the historical masterpieces of Ballet and reinterpret them in a contemporary light. Emphasis is placed on concept creation, use of story and movement, improvisation, dance patterns, revision and refinement to develop an original dance in a fixed, repeatable form. This course is designed for dance majors and all students interested in dance and choreography. (FT) AA/AS; CSU; UC.

151A Dance Making: Jazz

**3 hours lab, 1 unit
Grade Only**

Advisory: Dance 253 and Dance 112A, or Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 151. This course is a practical exploration of the processes and elements used in the art of dance making in the area of Jazz. Within a workshop format, students work under close faculty supervision to research Jazz, including its African roots, its place in American musical theatre, and the influence of Funk, Hip-Hop and Latin rhythms, in order to create an original piece. Emphasis is placed on concept creation, use of story and movement, improvisation, dance patterns, revision and refinement to develop an original dance in a fixed, repeatable form. This course is designed for dance majors and all students interested in dance and choreography. (FT) AA/AS; CSU; UC.

152A Dance Making: Modern

**3 hours lab, 1 unit
Grade Only**

Advisory: Dance 253 and Dance 112A, or Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 152. This course is a practical exploration of the processes and elements used in the art of dance making in the area of modern dance. Within a workshop format students work under close faculty supervision to research the 20th century pioneers of modern dance and 21st century trends to create an original, emotive modern dance. Emphasis is placed on concept creation, use of story, emotion and movement, improvisation, dance patterns, revision, and refinement to develop an original dance in a fixed, repeatable form. This course is designed for dance majors and all students interested in dance and choreography. (FT) AA/AS; CSU; UC.

153A Dance Making: Dance Theatre

**3 hours lab, 1 unit
Grade Only**

Advisory: Dance 253 and Dance 112A, or Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 153. This course is a practical exploration of the processes and elements used in the art of dance making in the area of Dance Theatre. Within a workshop format, students work under close faculty supervision to integrate multimedia, text, spoken word, and/or film with dance to create an original piece of Dance Theatre. Emphasis is placed on concept creation, use of story and movement, improvisation, dance patterns, revision, and refinement to develop an original dance in a fixed, repeatable form. This course is designed for dance majors and all students interested in dance and choreography. (FT) AA/AS; CSU; UC.

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160A Pilates - Stretch and Conditioning**0.5 hours lecture, 1.5 - 3 hours lab, 1-1.5 units****Letter Grade or Pass/No Pass Option**

Pilates is a course in stretch and conditioning based on exercises and concepts developed by Joseph H. Pilates. This course includes beginning mat work exercises to improve strength and flexibility. This course is of interest to dancers, athletes, and anyone seeking an understanding of Pilates exercises and concepts. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

160B Pilates - Alignment and Correctives**0.5 hours lecture, 1.5 - 3 hours lab, 1-1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 160A with a grade of "C" or better, or equivalent.

Pilates is a course in alignment and correctives based on exercises and concepts developed by Joseph H. Pilates. This course includes intermediate mat exercises to improve body alignment, strength, flexibility, control, coordination, and breathing. This course is of interest to anyone seeking an understanding of Pilates exercises and concepts as well as dancers and athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

176A Dance Improvisation**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 112A, Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 177 or Dance 177A.

This course is an introduction to improvisational dance. Emphasis is placed on space, time and energy as means for creating improvisational dance at the beginning level. This course is intended for all students interested in the use of improvisational movement in dance and non-dance settings. (FT) AA/AS; CSU; UC.

176B Dance Improvisation II**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 176A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 177B.

This course is an exploration of improvisational dance at the intermediate level. Emphasis is

placed on space, time, and energy as a means of creating improvisational dance in structured and unstructured settings. Students utilize and refine improvisational dance skills in the creation of improvisational dance compositions. This course is intended for dance majors and all students interested in the use of improvisational movement in dance and non-dance settings. (FT) AA/AS; CSU; UC.

178A Advanced Commercial Dance I**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dance 178.

This course is a study and application of the ideas, styles, and works of commercial dance choreographers. Emphasis is placed on the techniques and choreographic methodologies of American dance masters Jack Cole, Hermes Pan, Eugene Loring, and Matt Mattox. Instruction includes student performance of historical commercial dance repertoire. This course is intended for students majoring in dance. (FT) AA/AS; CSU; UC.

178B Advanced Commercial Dance II**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

This course is a study and application of the ideas, styles, and works of commercial dance choreographers on Broadway and in film. Emphasis is placed on the techniques and choreographic methodologies of American dance masters Bob Fosse, Jerome Robbins, Michael Kidd, and Michael Bennett. Instruction includes student performance of historical commercial dance repertoire. This course is intended for students majoring in dance. (FT) AA/AS; CSU; UC.

179A Advanced Classical Dance I**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 112D with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 179.

This class compares, discusses and analyzes the movement principles of the Royal and the French styles of classical dance. Advanced Classical dance focuses on movement design and artistic intent of the Royal and French methods. This course is designed for dance majors and all students interested in Advanced Classical dance. (FT) AA/AS; CSU; UC.

179B Advanced Classical Dance II**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 112D with a grade of "C" or better, or equivalent.

This class compares, discusses and analyzes the movement principles of the Cecchetti and the Russian styles of Classical dance. Advanced Classical focus on movement design, artistic intent, and intellectual property of the Cecchetti and Russian methods. This course is designed for dance majors and all students interested in Advanced Classical dance. (FT) AA/AS; CSU; UC.

180A Advanced Contemporary Dance I**0.5 hours lecture, 3 hours lab, 1.5 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 142D with a grade of "C" or better, or equivalent.

This course is a study and application of the ideas, styles, and significant works of influential Contemporary dance choreographers from the period 1900-1960. Emphasis is placed on the techniques and choreographic methodologies of Contemporary dance pioneers, such as Martha Graham, Doris Humphrey, Lester Horton, and Merce Cunningham. Student performances include reproduction of historical Contemporary dance repertoire as well as original choreography based on historical Contemporary dance choreography and techniques. This course is intended for students majoring in dance. (FT) AA/AS; CSU; UC.

180B Advanced Contemporary Dance II**0.5 hours lecture, 3 hours lab, 1.5 units****Grade Only**

Advisory: Dance 180A with a grade of "C" or better, or equivalent.

This course is a study and application of the ideas, styles, and significant works of one or more influential choreographers from the period 1960-present. Emphasis is placed on the movement concepts and choreographic practices in various geographic regions around the world, such as contemporary dance in Western Europe, Dance Theater in Germany, Gaga in Israel, and sensory practices in America. Instruction includes investigation and application of contemporary dance styles. This course is intended for students majoring in dance. (FT) AA/AS; CSU; UC.

181 History of Dance**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 260.

This course is a study of the history of dance. Emphasis is placed on the cultural, social and political aspects of dance in historical perspective. Students are challenged to broaden their aesthetic perceptions as they analyze and compare the influence of diverse cultures on western dance forms. Topics include the language of dance, dance technique and choreography. This class is intended for all students interested in dance and the history of dance. (FT) AA/AS; CSU; UC.

183 Music for Dance**1.5 hours lecture, 1.5 hours lab, 2 units****Grade Only**

Music for Dance introduces the fundamentals of music through the study of terminology, notation, elements and form as they relate to movement. This course explores the interrelationship of music and dance and provides students the opportunity to compose and perform rhythmic and movement projects. This course is of interest to anyone seeking an understanding of music and movement fundamentals as well as dance majors. This course is designed to fulfill lower division requirements for dance majors. (FT) AA/AS; CSU; UC.

253 Choreography**1.5 hours lecture, 1.5 hours lab, 2 units****Letter Grade or Pass/No Pass Option**

Advisory: Dance 112A, Dance 122A, Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 116.

Choreography is a course that explores the theories and elements utilized in the creative process of dance composition. Emphasis is placed on student

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application of choreographic concepts through the development of movement compositions. This course is designed to fulfill lower division requirements for dance majors. (FT) AA/AS; CSU; UC.

261A Dance Performance I

**6 hours lab, 2 units
Grade Only**

Advisory: Dance 112A, Dance 117A, Dance 122A, Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dance 261. This is the first in a series of dance performance courses. This course provides the opportunity for students to apply fundamental skills in ballet, jazz, tap, Hip Hop, and modern dance in concerts and community performances. Emphasis is placed on student application of dance, staging, and performance techniques in faculty choreographed works for large ensembles. This course is designed for dance majors and students interested in dance performance. (FT) AA/AS; CSU; UC.

261B Dance Performance II

**6 hours lab, 2 units
Grade Only**

Advisory: Dance 112A, Dance 117A, Dance 122A, Dance 137A or Dance 142A, each with a grade of "C" or better, or equivalent.

This is the second in a series of dance performance courses. This course provides the opportunity for students to apply beginning skills in ballet, jazz, Hip Hop, tap, and modern dance in concerts and community performances. Emphasis is placed on student application of dance, staging, and performance techniques in student choreographed works for large ensembles. This course is designed for dance majors and students interested in choreography and dance performance. (FT) AA/AS; CSU; UC.

261C Dance Performance III

**6 hours lab, 2 units
Grade Only**

Advisory: Dance 112B, Dance 117B, Dance 122B, Dance 137B or Dance 142B, each with a grade of "C" or better, or equivalent.

This is the third in a series of dance performance courses. This course provides the opportunity for students to apply intermediate skills in ballet, jazz, tap, Hip Hop, and modern dance in concerts and community performances. Emphasis is placed

on student application of dance, staging, and performance techniques in faculty choreographed works for solos and small groups. This course is designed for dance majors and students interested in dance performance. (FT) AA/AS; CSU; UC.

261D Dance Performance IV

**6 hours lab, 2 units
Grade Only**

Advisory: Dance 112C, Dance 117C, Dance 122C, Dance 137C or Dance 142C, each with a grade of "C" or better, or equivalent.

This is the fourth in a series of dance performance courses. This course provides the opportunity for students to apply advanced skills in ballet, jazz, Hip Hop, tap, and modern dance in concerts and community performances. Emphasis is placed on student application of dance, staging, and performance techniques in student choreographed works for solos and small groups. Students choreograph and produce all elements of performances in preparation to transfer to a university. This course is designed for dance majors and students interested in choreography and dance performance. (FT) AA/AS; CSU; UC.

271A Stage Costuming for Dance

**3-6 hours lab, 1-2 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Dance 271. This production oriented course introduces students to the techniques of costume design and organization for a full dance production. Emphasis is placed on costume design, modification, and craft techniques, as well as on the organizational structure required for costume production for a staged dance performance. This course is intended for dance majors and all students interested in costume production for the stage. (FT) AA/AS; CSU; UC.

271B Makeup for Dance Productions

**3 - 6 hours lab, 1-2 units
Grade Only**

This production oriented course introduces students to the materials and techniques used in stage makeup design and application for a full dance production. Emphasis is placed on vocabulary pertinent to the use of dance makeup and participation in the makeup crew for a full dance department production. This course is intended for dance majors and all students interested in makeup for the stage. (FT) AA/AS; CSU; UC.

271C Lighting Design for Dance Production

3–6 hours lab, 1-2 units
Grade Only

This production oriented course introduces students to the principles and practice of stage lighting. Emphasis is placed on design and drafting of lighting plots and the operation of basic lighting and electrical stage equipment. Students participate in lighting design and execution for a full department dance production. This course is intended for dance majors and all students interested in lighting for the stage. (FT) AA/AS; CSU; UC.

271D Sound Design for Dance Production

3–6 hours lab, 1-2 units
Grade Only

This production oriented course introduces students to the principles and practice of theater sound and its technical operation. Emphasis is placed on the basic aesthetic and technical aspects of sound design for the theater. Students participate in crew sound for a full department dance production. This course is intended for dance majors and all students interested sound for the stage. (FT) AA/AS; CSU; UC.

290 Independent Study

3–9 hours other, 1-3 units
Pass/No Pass

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project, or learning activities in dance. It is not intended to replace an existing course in the discipline. Projects may include extended research on dance subjects addressed in scheduled dance classes as well as topics outside the dance curriculum. The culmination of the course may include a written paper, presentation, or performance. An Independent Study has to be arranged with, approved and monitored by a member of the dance faculty. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Design (DSGN)

100 Introduction to Graphic Design

1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 100.

This course explores the fundamentals of graphic design. Emphasis is placed on the principles and elements of design and their application to analog and digital media, including through the lens of diverse cultures. Topics include line, shape, color, texture, type, grid, pattern, graphic translation, and other foundational visual concepts. This course is intended for graphic design students, interaction design students, and anyone interested in graphic design. (FT) AA/AS; CSU; UC.

102 Digital Media I

1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Commercial Art 125 or Art-Graphic Design 125.

This course is the first in a series of digital media courses. Students explore the tools and principles used in the creation of digital media. Emphasis is placed on learning industry-standard software used in graphic design. Topics include vector imagery, raster imagery, layout tools, file formats, file management, typesetting, image manipulation, ethics, and other foundational digital media concepts. This course is intended for graphic design students, interaction design students, and anyone interested in graphic design. (FT) AA/AS; CSU; UC.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
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UC = University of California Applicable
Milestone formerly referred to as Skill Level

104 Graphic Design History**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 118.

This course examines graphic design as an essential component of culture and history. Emphasis is placed on learning important design movements in the context of diverse cultural and historical perspectives. Topics include influential design figures and the impact of technology on design. This course is intended for graphic design students, interaction design students, and anyone interested in graphic design history. (FT) AA/AS; CSU; UC.

106 Typography I**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 106 or Art-Graphic Design 265A.

This course is the first in a series of courses about typography. Emphasis is placed on learning foundational type skills and applying them to solve typographic problems. Topics include type selection, styles, terminology, construction, classifications, typesetting, spacing, layout, hierarchy, accessibility, and history. Instruction incorporates both hand-rendering and computer tools. This course is intended for graphic design students, interaction design students, and anyone interested in typography. (FT) AA/AS; CSU; UC.

120 Illustration**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Advisory: Design 100, Design 102, Design 104, and Design 106, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 120.

This course introduces students to illustration concepts in the context of graphic design. Topics include illustration techniques, tools, media, and workflows. Emphasis is placed on developing illustrations with conceptual thinking, cultural voice, and visual storytelling. This course is intended

for graphic design students, interaction design students, and anyone interested in illustration. (FT) AA/AS; CSU.

124 Page Layout**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 100, Design 102, Design 104, and Design 106, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: Course not open to students with previous credit for Commercial Art 124 or Art-Graphic Design 124.

This course introduces students to the principles and strategies for creating effective design layouts. Emphasis is placed on concepts such as hierarchy, unity, and balance in two-dimensional space. Topics include layout software, grids, accessibility, and typographic systems in the context of design projects. This course is intended for graphic design students, interaction design students, and anyone interested in page layout. (FT) AA/AS; CSU; UC.

143 Interaction Design I**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 100, Design 102, Design 104, and Design 106, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 143, Art-Graphic Design 144, or Art-Graphic Design 265B.

This course is the first in a series of interaction design courses. Students explore the fundamentals of interaction design processes and methodologies in the context of website design. Emphasis is placed on using research and strategy to create strong information architecture and responsive website layouts. Topics include current industry software, research and strategy processes, accessibility, and prototyping. This course is intended for graphic design students, interaction design students, and anyone interested in interaction design. (FT) AA/AS; CSU.

153 Interaction Design II**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 100, Design 102, Design 104, and Design 106, each with a grade of “C” or better, or equivalent.

Advisory: Design 143 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 153.

This course is the second in a series of interaction design courses. Students explore the strategies and best practices that lead to successful mobile experiences. Emphasis is placed on creating design solutions that translate complex tasks and information into digital products that are user-friendly and elicit emotional responses. Topics include current user experience research and strategy, user interface design, prototyping, usability testing, and ethics. This course is intended for graphic design students, interaction design students, and anyone interested in interaction design. (FT) AA/AS; CSU.

202 Digital Media II

**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 100, Design 102, Design 104, and Design 106, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 126.

This course is the second in a series of digital media courses. Students survey software and other tools used in the creation of still and time-based digital media. Emphasis is placed on building specialized design and software skills. Topics include product photography, photo editing and manipulation, compositing, motion graphics, and user interface animations. This course is intended for graphic design students, interaction design students, and anyone interested in digital media. (FT) AA/AS; CSU.

203 Interaction Design III

**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 143 or Design 153, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 163.

This course is the third in a series of interaction design courses. Students explore the design and development of websites through a series of design and technical workshops. Emphasis is placed on designing and developing responsive website layouts with engaging content. Topics include

website planning and development, website frameworks, content management systems, accessibility, and website hosting. This course is intended for graphic design students, interaction design students, and anyone interested in interaction design. (FT) AA/AS; CSU.

206 Typography II

**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 100, Design 102, Design 104, and Design 106, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 206.

This course is the second in a series of courses about typography. Emphasis is placed on using techniques and conceptual strategies to solve complex typographic problems. Topics include historical and contemporary letterforms, letterform construction, cultural typography, and the expressive potential of typography. This course is intended for graphic design students, interaction design students, and anyone interested in typography. (FT) AA/AS; CSU.

210 Branding and Packaging

**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 100, Design 102, Design 104, and Design 106, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 133.

This course covers the application of design principles to branding and packaging systems. Students design a variety of logos, brand touchpoints, and packaging elements through a series of projects. Emphasis is placed on applying research and strategy to create compelling brand identity systems that have clear competitive differentiation. Topics include brand strategy, logo creation, packaging development, and the politics of design. This course is intended for graphic design students, interaction design students, and anyone

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

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Milestone formerly referred to as Skill Level

interested in branding and packaging. (FT) AA/AS; CSU.

213 Interaction Design IV
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Prerequisite: Design 143 or Design 153, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 173.

This course is the fourth in a series of interaction design courses. Emphasis is placed on discovering user needs through human-centered design processes. Topics include user experience research, user interface development, emerging and experimental media, inclusive design, and usability testing. Students identify valuable design opportunities and apply research and strategy techniques to document a range of potential solutions. This course is intended for graphic design students, interaction design students, and anyone interested in interaction design. (FT) AA/AS; CSU.

216A Design Studio I
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Prerequisite: Design 100, Design 102, Design 104 and Design 106, each with a grade of "C" or better, or equivalent.

This is the first in a series of courses that help design students build portfolio projects through professional experiences. Emphasis is placed on a strategic analysis of a specific target audience. Topics include custom typography, sustainable packaging systems, and design projects that follow real world constraints. This course is intended for graphic design and interaction design students. (FT) AA/AS; CSU.

216B Design Studio II
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Prerequisite: Design 216A with a grade of "C" or better, or equivalent.

This is the second in a series of courses that help design students build portfolio projects through professional experiences. Emphasis is placed on applying design skills to a collaborative and professional design project. Topics include performing a needs analysis, working in a diverse team, and client relations. This course is intended for

graphic design and interaction design students. (FT) AA/AS; CSU.

216C Design Studio III
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Prerequisite: Design 216B with a grade of "C" or better, or equivalent.

This is the third in a series of courses that help design students build portfolio projects through professional experiences. Emphasis is placed on the individual execution of a complete client project. Topics include client relationships, design proposals, inclusive persona development, and the execution of a client project. This course is intended for graphic design and interaction design students. (FT) AA/AS; CSU.

218 Internship
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Prerequisite: Design 143, Design 153, Design 206 or Design 210, each with a grade of "C" or better, or equivalent.

This course is a practical study of professional practices for graphic and interaction designers. Students gain real-world experience by applying for and completing an industry internship off site. Emphasis is placed on developing career skills for the graphic design and interaction design fields. Topics include self-promotion, contracts, professional networking, and ethics. This course is intended for graphic design students, interaction design students, and anyone interested in a design internship. (FT) AA/AS; CSU.

222 Book Arts II
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

Prerequisite: Design 100, Design 102, Design 104, Design 106, and Art-Fine Art 174A, each with a grade of "C" or better, or equivalent.

This course is the second in a series of book arts courses. Emphasis is placed on contemporary and historical models that serve as departure points for innovative bindings. Topics include an exploration of both non adhesive and adhesive structures, incorporating various board attachments, sewing styles, and endbands. This course is intended for graphic design students, fine art students, interaction design students and anyone interested in book arts. (FT) AA/AS; CSU.

248 Portfolio I

**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 143, Design 153, and Design 124 or Design 206, Design 210 and Design 124, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 155, Art-Graphic Design 147, or Art-Graphic Design 148A.

This course is the first in a series of portfolio courses. Emphasis is placed on developing a body of work with an authentic style and cultural voice. Topics include design career preparation, personal identity systems, resumes, and portfolio websites. This course is intended for graphic design and interaction design students. (FT)AA/AS; CSU.

258 Portfolio II

**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Prerequisite: Design 248 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Art-Graphic Design 147 or Art-Graphic Design 148B.

This course is the second in a series of portfolio courses. Emphasis is placed on revising, expanding, and showcasing existing projects to create a strategic body of work. Topics include advanced portfolio strategies, project development, portfolio website deployment, self promotion, job seeking, and industry ethics. This course is intended for graphic design and interaction design students. (FT) AA/AS; CSU.

270 Work Experience in Graphic Design

**54–216 hours other, 1–4 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number-Work Exp. Coordinator.

This course provides on-the-job learning experience for students employed in a design-related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation, and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one

enrollment period. This course is intended for graphic design students, interaction design students, and anyone interested in the design industry. (FT) AA/AS; CSU.

290 Independent Study in Design

**48 - 162 hours other, 1-3 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number from Instructor. This course is not open to students with previous credit for Art-Graphic Design 290.

This course is for students interested in individualized learning in the design field. It is not intended to replace an existing course in the discipline. Emphasis is placed on focused research, creating and completing projects, and/or exploring issues related to the design field. A written contract of specific activities and assignments to be completed are assessed and approved by the instructor. Regular meetings between the student and instructor are required to evaluate progress. (FT) AA/AS; CSU.

Disability Studies (DSST)

101 Introduction to Disability Studies

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent. This course explores the field of disability studies. Topics include disability as a social, cultural, historical, and political phenomenon. Emphasis is placed on various and changing disability definitions, cultural meanings and representations, social justice and human rights issues, and current bioethical debates related to disability. This course is designed for students with or without disabilities who have an interest in social justice issues regarding disability. (FT) AA/AS; CSU; UC.

Disability Support Programs and Services (DSPS)

(FT) = A field trip may be required for this course.
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Courses listed under DSPS have been designed for students with disabilities. DSPS courses are also listed under Exercise Science (EXSC) and Computer and Information Sciences (CISC). Additional DSPS classes are offered at Mesa and Miramar campuses. See appropriate catalog.

20 Introduction to Accessible Computers **1 hour lecture, 1 unit** **Pass/No Pass Only**

This course introduces students with disabilities to accessible computer programs and equipment. The course provides an overview of software and hardware resources that allow disabled students to compete in educational and business settings. Not Applicable to Associate Degree, Occupational/Vocational basic skills.

21 Accessible Computing Lab **1.5–6 hours lab, 0.5–2 units** **Pass/No Pass**

Limitation on Enrollment: This course is not open to students with previous credit for Disability Support Programs and Services 76.

This course teaches students how to use necessary adaptive hardware or software for computer access. Individualized training is provided for all instructional modules. This course is intended for students who would benefit from adaptive computer access. Not applicable to the Associate Degree.

27 Career Planning for Students with Disabilities **2 hours lecture, 2 units** **Pass/No Pass**

This course is designed to assist students with disabilities in acquiring an understanding of the world of work. Emphasis is placed on developing and pursuing goals for employment and on identifying community, state and national assistance resources. Throughout the course, students evaluate their individual career goals, analyze their job skills, research the job market and construct an effective resume and cover letter for prospective employers. Course material also emphasizes preparing students to meet the psychological, social and cognitive demands of employment. (FT) Not applicable to the Associate Degree.

34 College Success Skills **1 hour lecture, 1 unit** **Pass/No Pass Only**

Limitation on Enrollment: This course is not open to students with credit for Disability Support Programs and Services (DSPS) 29.

This course is designed to assist students with disabilities to achieve their educational goals by providing them with an orientation to the college campus, policies, procedures and support services such as financial aid, tutoring, counseling, computer labs, and career and transfer information. Emphasis is placed on time management, mental and physical health, study skills, self-advocacy, accommodations, and interpersonal relationships as they relate to individual disabilities and college success. Throughout the course, students clarify goals, develop an education plan and identify the courses, services and programs that will lead to their success. Not applicable to the Associate Degree.

38 Math Strategies for the Learning Disabled **3 hours lecture, 3 units** **Pass/No Pass**

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment. This course is designed for students with verified disabilities related to math. It is taught as a lecture class that can be taken independently or in conjunction with Basic Math or Pre-Algebra. This class utilizes a strategies oriented approach for developing competency with fundamental mathematical operations and pre-algebra concepts. (FT) Not applicable to the Associate Degree.

40 Individual Assessment and Educational Planning **0.5 hours lecture, 0.5 units** **Pass/No Pass**

Limitation on Enrollment: This course is not open to students with previous credit for Disabled Students Programs and Services 50.

This course teaches students about their individual learning aptitude as compared to measured academic achievement. Students use standardized achievement and aptitude assessment instruments in accordance with the California Community College Learning Disabilities Eligibility Model to create a learning profile related to community college academic demands. Other topics include individual cognitive processing strengths and weaknesses, compensatory learning strategies, study skills, and disability management. This course

is intended for students who believe they may have a learning disability or those interested in exploring issues related to learning aptitudes. (FT) Not applicable to the Associate Degree.

43 Advanced Applied Study Strategies

**1.5–3 hours lab, 0.5–1 unit
Pass/No Pass**

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment. Disability Support This course is intended primarily for students needing advanced academic disability related support in addition to the campus wide academic support services currently available. The focus of this class is to provide individualized study assistance for students in mainstream degree applicable college classes. Emphasis is placed on the application of study strategies to a specific course. Both study strategies and assistive technology are utilized to meet the demands of a mainstream course content. Computer assisted instruction is used to review related basic skills instruction and to support research skill development. Not applicable to the Associate Degree.

49 Writing Structured Paragraphs

**2 hours lecture, 2 units
Pass/No Pass Only**

This course is designed for students who demonstrate difficulty with written language. It is intended to prepare students who have a writing related disability to more successfully meet the minimum college requirements for multi-paragraph essay writing. This course is unique for the highly structured and sequential strategies applied to essay writing. Additionally, the course emphasizes the application of assistive computer technology for facilitating organizational pre-writing strategies, document checking, and written language fluency. Not applicable to the Associate Degree.

Dramatic Arts (DRAM)

103 Acting for Non-majors

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dramatic Arts 130.

This course introduces students to improvisational acting, treating acting as process-centered. The instructor leads the students using a variety of exercises to imagine, enact and reflect upon human experiences, emphasizing problem-solving skills in group improvisational work. This course is designed for introductory drama students and anyone who is interested in studying acting. (FT) AA/AS; CSU.

105 Introduction to Dramatic Arts

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This survey course introduces fundamental practices and creative processes in the dramatic arts. Through experimentation and examination, students gain greater insight and appreciation of the dramatic arts as an agent of change that is vital to the humanities. Aspects of theatre production and collaboration are covered through lecture, group discussion and participation. This course is designed for dramatic arts majors and all students interested in the dramatic arts. (FT) AA/AS; CSU; UC; C-ID THTR 111.

106 Voice-Over Performance

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 106, Radio, Television and Film 106, Dramatic Arts 265 or Radio and Television 265. This course is practical study of the voice-over industry. Emphasis is placed on voice-over performance techniques for radio and television commercials, multimedia, and other audio and video presentations. Students are expected to read aloud extensively as well as to record their voice for critique and self-evaluation. Topics include an overview of the voice-over business, marketing, current technology, and professional work and studio etiquette as well as legal and ethical issues in voice-over performance. Social and cultural constructs, economics, technology, and equity and social justice are explored. This course is designed for students pursuing media-related majors and

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UC = University of California Applicable

Milestone formerly referred to as Skill Level

anyone interested in media-related industries. (FT) AA/AS; CSU.

107 Study of Filmed Plays

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of cinematic adaptations of plays, comparing stage and screen versions in the areas of form and structure, writing, and production. Emphasis is placed on developing students' appreciation for dramatic art and providing practice in the art of theatre criticism. This course is designed for Drama majors and any student interested in the Humanities. (FT) AA/AS; CSU; UC.

108 Playwriting

**3 hours lecture, 3 units
Grade Only**

Prerequisite: Eligible to enroll in a transferable English composition course.

This course gives students an opportunity to write dramatic material for the theatre. Topics and exercises include exploring dialogue, monologue, exposition, autobiography, writing for various voices, and other areas related to playwriting. Students are required to write scenes and monologues that explore issues of structure, in order to develop a technique to explore individual and traditional dramatic ideas and processes. This class is designed for students majoring in theatre and those students interested in the Humanities. (FT) AA/AS; CSU; UC.

109 Theatre and Social Issues

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the role of theatre in society within its cultural, aesthetic, economic, and political manifestations. Emphasis is placed on increasing students' understanding of politics in theatrical representation and comprehension of theatre as a tool for social change. Topics include the nature and function of theatrical representation, moving to historical and contemporary issues in American and World cultures. This class is designed for students majoring in theatre and those students interested in the Humanities and/or social and theoretical issues. (FT) AA/AS; CSU; UC.

111 Chicana/o Theatre

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of Chicana/o drama in the United States and Mexico from 1975 to the present. Emphasis is placed on the historical roots, techniques, styles, and dramatic literature. It explores new trends, influences, and developments in playwriting, directing, and performance styles. This course examines issues facing the Mexican-American community through dramatic forms, focusing on the advent of professionally-oriented Chicana/o theatre, examining significant plays, playwrights, and the theatre groups that produced those plays. This course is designed for Chicana/o Studies majors, Dramatic Arts majors, and anyone interested in literature. (FT) AA/AS; CSU; UC.

118 Intermediate Playwriting

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Dramatic Arts 108 with a grade of "C" or better, or equivalent.

This course examines themes, structures, and effective material that is written for the theatre at the intermediate level. Topics and exercises include the exploration of dialogue and monologue composition, exposition, autobiography, political and domestic social issues, writing for the opposite gender, and structure. Students are required to write scenes and plays that facilitate the development of a technique that is both individual and based on traditional dramaturgical ideas. Students present a folio of plays as well as critical analyses of plays and other works associated with theatre and playwriting. This course is designed for students majoring in theatre and those interested in creative writing and the humanities. (FT) AA/AS; CSU.

119 Film and Television Performance

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Dramatic Arts 132 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 119 or Radio, Television and Film 119 or Dramatic Arts 265 or Radio and Television 265. This course introduces students to the skills required for on-camera performing techniques as used in the motion picture and television industry.

Students participate in the selection, rehearsal, and on-camera performance of material from television and motion picture scripts including drama, sitcoms, daytime dramas, and commercials. Emphasis is placed on cold-reading taped audition skills, improvisational and interview techniques, and the fundamental acting techniques required for on-camera performance. Legal and ethical issues in film and television performance, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for theatre, television, and film majors. (FT) AA/AS; CSU.

123 Beginning Stagecraft

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Drama 125. This course is a hands-on introduction to technical theatre production. Emphasis is placed on construction, painting, rigging, placement, and manipulation of stage scenery, lighting equipment, sound, projections, properties, and the organization and management of stage activity and stagecraft technology. This course is designed for theatre majors and students interested in backstage production. (FT) AA/AS; CSU, UC; C-ID THTR 171.

124 Makeup for the Stage

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Dramatic Arts 122. This course is an introductory hands-on study of the materials and techniques used in stage and production makeup design and application. Emphasis is placed on the acquisition of a lexicon pertinent to the history and use of makeup in the theater as well as on the actual application of stage makeup in the classroom and as a member of the makeup crew for a theatrical and video production. This course is intended for students majoring in drama, theatre, film, radio and television and cosmetology as well as anyone interested in makeup for the stage. (FT) AA/AS; CSU; UC; C-ID THTR 175.

126 Advanced Stagecraft

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Dramatic Arts 123 with a grade of "C" or better, or equivalent.

This course is an advanced study of technical stage production and scene technology. Emphasis is placed on the methods and practices of technical theory and on practical, hands-on experience. Topics include theater design, stage decor and lighting, and the synthesis of all elements of stagecraft within an environment of actual stage production. Students develop crew leadership skills as they create and construct set designs and operate stage equipment for all Dramatic Arts productions throughout the semester. This course is designed for Theatre majors and anyone interested in stagecraft. (FT) AA/AS; CSU; UC.

127 Sound For Theatre

**1 hour lecture, 3 hours lab, 2 units
Letter Grade or Pass/No Pass Option**

This course is an introduction to the basic principles of audio production and the craft of sound design. Topics include technique, theory and procedures necessary to develop sound, music and effects integrated into theatre productions. This course is intended for the transfer student planning a major in Dramatic Arts, desiring competency in technical theatre or those interested in developing a deeper understanding of sound design. (FT) AA/AS; CSU, UC.

128 Stage Lighting Design

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dramatic Arts 128. This course is an introduction to the principles and practice of stage and film lighting design. Emphasis is placed on the operation of basic lighting equipment, design, and digital drafting techniques. Technical preparation for other forms of production, such as outdoors, television and movies is included. This course is intended for transfer students planning a major in Dramatic Arts or desiring competency in technical theater. (FT) AA/AS; CSU, UC.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

129A Beginning Scene Painting**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Dramatic Arts 129. This course introduces students to basic techniques and materials used in the painting of scenery for the stage. Emphasis is placed on techniques in faux painting, murals, trompe l'oeil (trick the eye), and decorative motifs for theatre. Students experiment with color mixing, base, layout, ink, lay-in detail, and the use of brushes and tools for application in theatre settings. This course is designed for drama majors, art students, and anyone interested in painting on a large scale. (FT) AA/AS; CSU, UC.

129B Intermediate Scene Painting**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Dramatic Arts 129A with a grade of "C" or better, or equivalent.

This course is an intermediate study in the art and practice of theatrical scene painting. Emphasis is placed on the creation of large scale projects designed to allow students the opportunity to apply basic scene painting skills while experimenting with intermediate techniques and tools, including liner and aerial perspective and a variety of spray guns. Students take on leadership roles in scene painting for theatrical productions while developing communication and collaboration skills. The course is designed for students majoring in drama, art, or anyone interested in painting on a large scale. (FT) AA/AS; CSU; UC.

132 Beginning Acting**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Dramatic Arts 131A. This course is a beginning level study, practice and execution of the fundamentals of acting designed to develop a foundation in basic acting technique. Emphasis is placed on the effective communication of ideas and emotions by a dramatic character to audience. Topics include staging techniques, improvisation, theater games, scenes, monologues, stage movement, and an introduction to the lexicon of acting for theater. This course is intended for students who are interested in developing basic acting techniques. (FT) AA/AS; CSU; UC; C-ID THTR 151.

133 Intermediate Acting**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Dramatic Arts 132 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Dramatic Arts 131B. This course is an intermediate level study of the fundamentals of acting. Emphasis is placed on the use of scene work as a tool for sharpening the actor's skill. Students work on scenes by a variety of playwrights as they increase vocal, physical and emotional flexibility as well as their stage presence. This course is designed for students majoring in Drama and anyone interested in honing their acting skill. (FT) AA/AS; CSU; UC; C-ID THTR 152.

134 Beginning Voice for Actors**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is a study of the foundations of vocal technique for actors. Emphasis is placed on breath, projection, resonators, and diction. Students apply voice technique through classical and modern monologues. This course is designed for drama majors, multilingual learners, and anyone interested in refining voice and articulation skills. (FT) AA/AS; CSU; UC.

136 Theatre History I: Ancient Greece to the Renaissance**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of the history of theatre from ancient Greece through the Renaissance. Emphasis is placed on the historical, political, cultural, and religious contexts within which plays were developed and performed. Topics include acting styles, theories and theorists, theatre architecture, representative plays and playwrights, production elements, and staging innovations. This course is intended for drama majors and students interested in history. (FT) AA/AS; CSU; UC; C-ID THTR 113.

137 Theatre History II: Restoration to the Present**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of theatre from the English Restoration to the present. Emphasis is placed on the historical, political, and cultural contexts within which plays were developed and performed. Topics include acting styles, theories and theorists, theatre architecture, representative plays and playwrights, production elements, and staging innovations. This course is intended for drama majors and students interested in history. (FT) AA/AS; CSU; UC.

143 Beginning Costuming

2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

This lecture and laboratory course emphasizes student involvement in the techniques and methodology of costume construction. Topics include practical experience in sewing, fabrics and their modification, costume craft techniques such as millinery, masks, footwear and accessories, and service on costume crews. Students explore costume production procedures with regards to time, budgets, and labor. This course is designed for students majoring in performance and technical theatre or anyone interested in clothing and fashion. (FT) AA/AS; CSU, UC; C-ID THTR 174.

144A Beginning Special Effects Makeup for Stage and Film

1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: Dramatic Arts 124 with a grade of "C" or better, or equivalent.

This introductory course focuses on human character development with an emphasis on the fundamental elements of prosthetic application and special effects (FX) makeup. Students develop the lab skills and application techniques of professional makeup artists while using traditional makeup, as well as new materials and tools. Students learn how to cast, mold and apply simulated injuries, age makeup, bald caps and facial hair, wigs and facial prosthetics. Students learn how to effectively incorporate costume pieces and props into their overall makeup design. This course is intended for theatre majors, cosmetology students or anyone interested in earning a certificate in special effects makeup. (FT) AA/AS; CSU.

144B Intermediate Special Effects Makeup for Stage and Film

1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Dramatic Arts 144A with a grade of "C" or better, or equivalent.

Advisory: Dramatic Arts 124 with a grade of "C" or better, or equivalent.

This course focuses on the intermediate skills and development necessary for the construction of Special Effects (FX) creature design. Students conceptualize, design, build and apply facial prosthetics for FX creatures. Students develop intermediate lab skills and application techniques for professional makeup artists while using traditional makeup, as well as new materials and tools. Students learn how to effectively incorporate costume pieces and props into their overall creature design. This course is intended for theatre majors, cosmetology students or anyone interested in earning a certificate in special effects makeup. (FT) AA/AS; CSU.

145A Introduction to Theatrical Glamour: Promotional Events

2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: Dramatic Arts 124 with a grade of "C" or better, or equivalent.

This beginning course focuses on theatrical approaches to glamour makeup. Students explore makeup techniques used to heighten the impact of glamour makeup for film, stage and promotional events. Students examine the process of creating themes used in developing theatrical glamour concepts. Using period makeup, cultural makeup, airbrushing, prosthetic transfers, masks and costumes students create their own theatrical glamour projects. This course is intended for theatre majors, cosmetology students or anyone interested in earning a certificate in special effects makeup. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

146A Beginning Special Effects Makeup**Practicum: Character****2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Dramatic Arts 124 with a grade of "C" or better, or equivalent.

This introductory practicum provides students hands-on experience in special effects (FX) makeup for stage, film and events. Students identify and prepare theatrical human characters for an identified event on campus or in the community. Students learn the fundamental business practices of the FX makeup artist including pre-planning, set-up, on-site service and cleanup. This course is for students earning a certificate in FX makeup, theatre majors, cosmetology students or anyone with an interest in the practicing FX makeup. (FT) AA/AS; CSU.

**146B Intermediate FX Makeup Practicum:
Creature****2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Dramatic Arts 146A with a grade of "C" or better, or equivalent.

Advisory: Dramatic Arts 124 with a grade of "C" or better, or equivalent.

This intermediate special effects (FX) practicum provides students with hands-on experience at an intermediate level special effects makeup for stage, film, television, and events. Students develop and execute creatures for an identified performance/event on campus or in the community. Students develop a working knowledge the freelance business practices of the FX makeup artist. This course is for students earning a certificate in FX makeup, theatre majors, cosmetology students or anyone with an interest in the practicing FX makeup. (FT) AA/AS; CSU.

146C Introduction to Theatrical Glamour**Practicum: Promotional Events****2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Dramatic Arts 146B with a grade of "C" or better, or equivalent.

Advisory: Dramatic Arts 124 with a grade of "C" or better, or equivalent.

This introductory practicum provides students hands-on experience in theatrical glamour makeup stage for promotional events. Students work with client to create and execute theatrical glamour for promotional events. Interfacing directly with the client, students develop a business plan for event,

from developing overall concepts for event, to social media execution and final execution of makeup at events. This course is intended for theatre majors, cosmetology students or anyone interested in earning a certificate in special effects makeup. (FT) AA/AS; CSU.

153 Intermediate Costuming**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Dramatic Arts 143 or Fashion 130, each with a grade of "C" or better, or equivalent.

This lecture/laboratory course develops intermediate skills in theatrical costuming including costume design for various styles, historical research methods, costume construction, and fabric identification and modification. Emphasis is placed on the role of the costume designer from the pre-production/design phase to the execution of costume design for the stage. This course is designed for drama majors and anyone interested in costume design, cosplay, or fashion. (FT) AA/AS; CSU; UC.

165 Introduction to Stage Movement**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Drama 165A.

This course is an introduction to basic techniques of movement for the stage. Emphasis is placed on the actor's body as an expressive instrument. Students acquire flexibility, strength, and physical repertoire of stage movement. This course is designed for drama and dance majors and anyone interested in honing stage movement skills. (FT) AA/AS; CSU; UC.

**205 The American Musical on Stage and
Screen****3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of the American musical on stage and film with an emphasis on the evolution of this unique American art form. Students explore the role of social, political, and demographic changes on Musical Theatre from late-nineteenth century stage productions to recent live, filmed, and digital manifestations. This class is designed for Dramatic Arts majors, Film majors, and anyone with an interest in musical theatre. (FT) AA/AS; CSU; UC.

240A Musical Theatre Repertoire I**12 hours lab, 4 units
Grade Only**

Limitation on Enrollment: Tryout or Audition. This course is not open to students with previous credit for Dramatic Arts 251.

This introductory class is designed for the rehearsal and performance of a play from the musical theatre repertoire. Emphasis is placed on rehearsal and performance as students are introduced to working in collaboration with directors, cast members, and production crew members on a musical theatre production. This course is intended for students majoring in drama, dance, music, and all students interested in participating in a musical theatre production. (FT) AA/AS; CSU; UC.

240B Musical Theatre Repertoire II**12 hours lab, 4 units
Grade Only**

Advisory: Dramatic Arts 240A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Tryout or Audition. This course is not open to students with previous credit for Dramatic Arts 251.

This course is designed for the intermediate level of rehearsal and performance of a play from the musical theatre repertoire. Emphasis is placed on rehearsal, performance, and the synthesis of singing, dancing and acting throughout the rehearsal and performance processes. This course is intended for students majoring in drama, dance, or music, and all students interested in participating in musical theatre production and performance. (FT) AA/AS; CSU; UC.

240C Musical Theatre Repertoire III**12 hours lab, 4 units
Grade Only**

Advisory: Dramatic Arts 240B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Tryout or Audition. This course is not open to students with previous credit for Dramatic Arts 251.

This course is designed for the intermediate-advanced level of rehearsal and performance of a play from the musical theatre repertoire. Emphasis is placed on refinement of the process through the development of one's work ethic. Students are expected to demonstrate professionalism and consistent practice throughout the rehearsal process. This course is intended for students majoring in drama, dance, or music, and all students

interested in participating in musical theatre production. (FT) AA/AS; CSU; UC.

240D Musical Theatre Repertoire IV**12 hours lab, 4 units
Grade Only**

Advisory: Dramatic Arts 240C with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Tryout or Audition. This course is not open to students with previous credit for Dramatic Arts 251.

This class is designed for the advanced level of rehearsal and performance of a play from the musical theatre repertoire. Emphasis is placed on professional decorum, adaptability, and leadership throughout the rehearsal and performance processes. This course is intended for students majoring in drama, dance, or music, and all students interested in participating in musical theatre production. (FT) AA/AS; CSU; UC.

242A Rehearsal and Performance I**9 hours lab, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Dramatic Arts 250. Tryout or Audition. Obtain Permission Number from Instructor.

This is the first in a series of courses in theatre production. Emphasis is placed on an introduction to the rehearsal and performance process of a departmental theatre production based on the unique aspects of the selected play. Topics include collaboration with directors, cast members, and production crew members. This course is intended for students majoring in drama and all students interested in participating in theatre production. (FT) AA/AS; CSU; UC; C-ID THTR 191.

242B Rehearsal and Performance II**9 hours lab, 3 units
Grade Only**

Advisory: Dramatic Arts 242A with a grade of "C" or better, or equivalent.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

Limitation on Enrollment: Tryout or Audition. Obtain Permission Number from Instructor.

This is the second in a series of courses in theatre production. Emphasis is placed on an intermediate-level rehearsal and performance of a departmental theatre production based on the unique aspects of the selected play. Topics include a deeper analysis of the selected piece through researching the playwright, more thorough character development, and collaboration with directors, cast members, and production crew members. This course is intended for students majoring in drama and all students interested in participating in theatre production. (FT) AA/AS; CSU; UC.

242C Rehearsal and Performance III

**9 hours lab, 3 units
Grade Only**

Advisory: Dramatic Arts 242B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Tryout or Audition. Obtain Permission Number from Instructor.

This is the third in a series of courses in theatre production. Emphasis is placed on an intermediate-advanced level of rehearsal and performance of a departmental theatre production based on the unique aspects of the selected play. Topics include a deeper analysis of the selected piece through more complex character arc explorations, receiving and incorporating feedback from the director/s, and role modeling effective collaboration with directors, cast members, and production crew members. This course is intended for students majoring in drama and all students interested in participating in theatre production. (FT) AA/AS; CSU; UC.

242D Rehearsal and Performance IV

**9 hours lab, 3 units
Grade Only**

Advisory: Dramatic Arts 242C with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Tryout or Audition. Obtain Permission Number from Instructor.

This is the fourth and final course in a series of courses in theatre production. This course prioritizes the advanced level of rehearsal and performance of a departmental theatre production based on the unique aspects of the selected play. Topics include a deeper analysis of the selected piece through research of its impact in historical and cultural contexts, creating more complex character creations and their relationships, effectively assisting the directors, taking on leadership roles in the

production in collaboration with directors, cast members, and production crew members. This course is intended for students majoring in drama and all students interested in participating in theatre production. (FT) AA/AS; CSU; UC.

243A Technical Theatre Practicum - Costume and Makeup

**6 hours lab, 2 units
Grade Only**

Advisory: Dramatic Arts 123, 124, 129A, and 143, each with a grade of "C" or better, or equivalent.

This technical theatre practicum is designed to provide students with hands-on training in the intricacies of running a theatre production, with special emphasis on costume and makeup. Students work as part of the costume and makeup crew during the rehearsal and production processes for main stage, dance or black box productions. This course is intended for students majoring in drama and all students interested in participating in the theatre production process. (FT) AA/AS; CSU; UC.

243B Technical Theatre Practicum - Lighting and Sound

**6 hours lab, 2 units
Grade Only**

Advisory: Dramatic Arts 123, 124, 129A, and 143, each with a grade of "C" or better, or equivalent.

This technical theatre practicum is designed to provide students with hands-on training in the intricacies of running a theatre production, with special emphasis on lighting and audio. Students work as part of the lighting and audio crew during the rehearsal and production processes for main stage, dance or black box productions. This course is intended for students majoring in drama and all students interested in participating in the theatre production process. (FT) AA/AS; CSU; UC.

243C Technical Theatre Practicum - Scenic

**6 hours lab, 2 units
Grade Only**

Advisory: Dramatic Arts 123, 124, 129A, and 143, each with a grade of "C" or better, or equivalent.

This technical theatre practicum is designed to provide students with hands-on training in the intricacies of running a theatre production, with special emphasis on scenic elements. Students work as part of the scenic crew during the rehearsal and production processes for main stage, dance or black box productions. This course is intended for students majoring in drama and all students interested in

participating in the theatre production process. (FT) AA/AS; CSU; UC.

243D Technical Theatre Practicum - Stage Management

**6 hours lab, 2 units
Grade Only**

Advisory: Dramatic Arts 123, 124, 129A, and 143, each with a grade of "C" or better, or equivalent.

This technical theatre practicum is designed to provide students with hands-on training in the intricacies of running a theatre production, with special emphasis on stage management. Students work as part of the stage management crew during the rehearsal and production processes for main stage, dance or black box productions. This course is intended for students majoring in drama and all students interested in participating in the theatre production process. (FT) AA/AS; CSU; UC.

244A Theatre Workshop I

**3 - 6 hours lab, 1-2 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This introductory class is designed for the rehearsal and performance of original, established, touring, or devised works. Aspects of theatre covered including acting, playwriting, and production support. This course is intended for introductory drama majors and all students interested in theatre arts. (FT) AA/AS; CSU.

244B Theatre Workshop II

**3 - 6 hours lab, 1-2 units
Letter Grade or Pass/No Pass Option**

Advisory: Dramatic Arts 244A with a grade of "C" or better, or equivalent.

This class is designed for the intermediate level of rehearsal and performance of original, established, touring, or devised works. Various aspects of theatre are covered including acting, playwriting, directing, design, and production support. This course is intended for intermediate drama majors and all students interested in theatre arts. (FT) AA/AS; CSU.

244C Theatre Workshop III

**3 - 6 hours lab, 1-2 units
Letter Grade or Pass/No Pass Option**

Advisory: Dramatic Arts 244B with a grade of "C" or better, or equivalent.

This class is designed for the intermediate-advanced level of rehearsal and performance of original,

established, touring, or devised works. All aspects of theatre are covered including acting, directing, playwriting, design, and production support. This course is intended for intermediate-advanced drama majors and all students interested in theatre arts. (FT) AA/AS; CSU.

244D Theatre Workshop IV

**3 - 6 hours lab, 1-2 units
Letter Grade or Pass/No Pass Option**

Advisory: Dramatic Arts 244C with a grade of "C" or better, or equivalent.

This class is designed for the advanced level of rehearsal and performance of original, established, touring, or devised works. All aspects of theatre are covered including acting, directing, playwriting, design, and production support. This course is intended for advanced drama majors and all students interested in theatre arts. (FT) AA/AS; CSU.

270 Theatre Arts Internship / Work Experience

**54–216 hours other, 1–4 units
Grade Only**

Limitation on Enrollment: Must obtain a permission number from Work Experience Coordinator for enrollment.

This course provides on-the-job learning experiences for students employed in a Theatre Arts-related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring or interested in the Dramatic and/or Theatre Arts. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
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UC = University of California Applicable
Milestone formerly referred to as Skill Level

290 Independent Study**3–9 hours other, 1-3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Obtain Permission Number from Instructor.

Advanced special work in dramatic arts: acting, design, lighting, film, business, makeup, costumes, direction or play production. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Economics (ECON)

120 Principles of Macroeconomics**3 hours lecture, 3 units
Grade Only**

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations. This course is an introduction to aggregate (macro) economic analysis. Topics include market systems; aggregate measures of economic activity; macroeconomic equilibrium; money and financial institutions; monetary and fiscal policy; international economics; and economic growth. This course is intended for business majors and students interested in macroeconomics. (FT) AA/AS; CSU; UC; C-ID ECON 202.

121 Principles of Microeconomics**3 hours lecture, 3 units
Grade Only**

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations. This course is an introduction to economic analysis of specific decision-making sectors in the economy (micro analysis). These sectors include households, firms, and government. Topics covered include productivity and costs for individual firms, industry types, the labor market, anti-trust issues, income distribution, and environmental externalities. This course is intended for business majors and all

students interested in microeconomics. (FT) AA/AS; CSU; UC; C-ID ECON 201.

220 Economics of the Environment**3 hours lecture, 3 units
Grade Only**

This course is a study of major environmental issues from an economics perspective. Emphasis is placed on resource management. Market and government responses are evaluated and analyzed. International response to major environmental issues are explored. This course is designed for students interested in majoring in economics, sustainability, environmental science, political science, international studies, or related majors. (FT) AA/AS; CSU; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Education (EDUC)

44A Supervised Tutoring: Communication**1 – 162 hours other
No Grade/0 Units**

This course is designed to prepare the student to succeed with the communication skills needed in corequisite and subsequent subject matter courses. College noncredit course.

44B Supervised Tutoring: Literacy**1 – 162 hours other
No Grade/0 Units**

This course is designed to prepare the student to succeed with the literacy skills needed in corequisite and subsequent subject matter courses. College noncredit course.

44C Supervised Tutoring: Quantitative Reasoning

1 – 162 hours other
No Grade/0 Units

This course is designed to prepare the student to succeed with the quantitative reasoning needed in corequisite and subsequent subject matter courses. College noncredit course.

44D Supervised Tutoring: Critical Thinking

1 – 162 hours other
No Grade/0 Units

This course is designed to prepare the student to succeed with the critical thinking skills needed in corequisite and subsequent subject matter courses. College noncredit course.

100 Tutor Training

0.5 hours lecture, 1.5 hours lab, 1 unit
Pass/No Pass

This course prepares college-level students for tutoring adult/college students. Student trainees learn about tutoring methods as well as how to use appropriate written and mediated instructional materials. The course includes supervised tutoring practice. (FT) AA/AS; CSU.

150 Advanced Tutor Training

0.5 hours lecture, 1.5 hours lab, 1 unit
Pass/No Pass

Advisory: Education 100 with a grade of "C" or better, or equivalent.

The course is designed to prepare college level persons for tutoring adult/college students in an online environment. Online tutoring methods, use of appropriate written and mediated instructional materials and equipment, and supervised practice tutoring are included in this course. Online tutoring techniques and methodology are emphasized. Laboratory hours are by arrangement with the tutorial center coordinators. (FT) AA/AS; CSU.

200 Teaching as a Profession

2 hours lecture, 2 units
Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

Advisory: Concurrent enrollment in Education 203 with a grade of "C" or better, or equivalent.

This course is an introduction to the teaching profession. Emphasis is placed on the historical and philosophical foundations of the American education system and contemporary trends and

issues related to teaching diverse learners in Kindergarten through grade 12 (K-12) classrooms. California's content standards and frameworks and teacher performance standards are also examined. This course is designed for students considering teaching as a profession. (FT) AA/AS; CSU; UC; C-ID EDUC 200 (EDUC 200, EDUC 203)

203 Field Experience for Prospective Teachers

1 hour lecture, 1 unit
Letter Grade or Pass/No Pass Option

Advisory: Concurrent enrollment in Education 200 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Health and Safety. Student must meet safety and health clearance standards for public school observers.

This course provides students interested in teaching at the Kindergarten through grade 12 (K-12) level with a 45-hour supervised field observation experience in a public K-12 classroom. Emphasis is placed on introducing students to classroom environments, management techniques, and curriculum designed for diverse learners. This course is intended for students who are considering teaching at the K-12 level as a profession. (FT) AA/AS; CSU; UC; C-ID EDUC 200 (EDUC 200, EDUC 203)

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

(FT) = A field trip may be required for this course.
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Milestone formerly referred to as Skill Level

Energy and Geo-Environmental Engineering (EGEE)

50 Building Science Principles

**3 hours lecture, 3 units
Grade Only**

This course is designed to prepare students for the Building Performance Institutes - Building Science Principles - Certificate of Knowledge. Emphasis is placed on how the physical properties of heat, moisture, and airflow affect our homes, and how we can measure their impact and apply scientific principles to the goal of healthier, more energy-efficient homes. Topics include Heating and Insulation, Air and Air Sealing, Moisture and Moisture Control, Mechanical Systems, Conservation Strategies, and United States Department of Energy Home Energy Scores. This course is designed for students interested in Green Building Professional certification, Energy and Geo-Environmental Engineering (EGEE), and the Air Conditioning, Refrigeration, and Environmental Control Technology (AIRE). (FT) AA/AS.

55 Air Quality Management and Systems

**3 hours lecture, 3 units
Grade Only**

This course is a comprehensive study of air quality management and systems, their operations, and their impacts on the environment. Emphasis is placed on understanding the methods and devices used to improve air quality and comfort. Topics include the benefits of conditioned air and environments, and situations in which the improvement of air quality is essential. This course is designed for students interested in Green Building Professional certification, Air Conditioning, Refrigeration, and Environmental Control Technology (AIRE), and Energy and Geo-Environmental Engineering (EGEE). (FT) AA/AS.

70 Energy Industry Principles

**3 hours lecture, 3 units
Grade Only**

This course is a study of energy industry principles with an emphasis on new and emerging energy resource types. Topics include energy production and the environment, non-renewable and renewable power plant operations, and the impacts of governmental policy on energy systems. This course is intended for students interested in Green Building Professional certification, Environmental Resource

Management, Energy and Power Technology, and Energy and Geo-Environmental Engineering (EGEE). (FT) AA/AS.

72 Energy Conservation Strategies

**3 hours lecture, 3 units
Grade Only**

This course is designed for students interested in becoming more environmentally responsible. Emphasis is placed on exploring the relationship between energy and the environment, while exploring factors that must be considered when purchasing energy consuming products. Topics include energy supply and demand, energy efficiency, and environmental controls in residential settings. This course is designed for students interested in Green Building Professional certification and Energy and Geo-Environmental Engineering (EGEE). (FT) AA/AS.

78 Solar Electric Systems

**3 hours lecture, 3 units
Grade Only**

This course is designed for students interested in examining the theories and design practices of solar electric systems in the context of utility and commercial-scale applications. Emphasis is placed on solar photovoltaic (PV) electric systems feasibility, design, and commissioning. Topics include conceptual design of solar electric systems, solar electric technologies, inverter and power management technologies, design theory and economic analysis tools, system design processes for grid-tied and off-grid systems, integration of energy storage and demand response systems, construction project management, permitting, safety and commissioning, system monitoring, and maintenance. This course is designed for students interested in Green Building Energy Professional certification and Energy and Geo-Environmental Engineering (EGEE). (FT) AA/AS.

80 Energy Storage

**3 hours lecture, 3 units
Grade Only**

This course provides a broad overview of electric energy storage technologies, benefits, economics, California Policies, and a discussion of energy storage in microgrid systems. Emphasis is placed on electric energy storage versus other types of energy storage. Topics include energy storage technology, performance, benefits, and cost. This course is designed for students interested in Green Building

Energy Professional certification, Environmental Resource Management, Energy and Power Technology, and Energy and Geo-Environmental Engineering (EGEE). (FT) AA/AS.

85 Energy Standard Practice

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course prepares students for the Associate Energy Analyst (AEA) certification through the California Association of Building Energy Consultants (CABEC). Emphasis is placed on California Title 24, Part 6 Energy Standards and related building energy efficiency topics as well as helping energy consultants stay on the cutting edge of building energy efficiency. Topics include energy basics, code triggers, project assessment, modeling and troubleshooting results, and energy consulting. This course is designed for students interested in the AEA certification as well as those interested in energy efficiency. (FT) AA/AS.

95 Interactive Climate Systems

**3 hours lecture, 3 units
Grade Only**

This course is a study of the essential principles of Earth's climate system. Emphasis is placed on assessing scientifically credible information about climate. Topics include economic, environmental, and socially responsible sustainability ethics. This course is intended for students interested in learning about the impacts of climate change, the threats they pose, and potential adaptation and mitigation strategies. (FT) AA/AS.

98 Energy Service Entrepreneurship

**3 hours lecture, 3 units
Grade Only**

This course is designed for students interested in the principles of establishing and managing a small energy service business, including the preparation of an energy service business plan. Emphasis is placed on goal setting, types of business organizations, obtaining licenses and permits, financing options, accounting aspects, legal requirements, managing the enterprise, and other aspects in small energy business entrepreneurship. Topics include communication and technology, marketing and branding, and leadership and ethics. This course is designed for students interested in small energy business entrepreneurship. (FT) AA/AS.

Electricity (ELCT)

20 Blueprint Reading for Electricians

**3 hours lecture, 3 units
Grade Only**

This course is a practical survey of blueprint reading for electricians. Emphasis is placed on architectural considerations and electrical symbology for residential, commercial, and industrial blueprints. This course is intended for students in the Electricity program as well as for working electricians who want to further their skills and/or fulfill state certification and accreditation requirements. (FT) Not Applicable to Associate Degree.

30 Modern Commercial Wiring

**3 hours lecture, 3 units
Grade Only**

This course is a study of modern commercial wiring systems. Emphasis is placed on practical application of the material through in-class projects. This course is intended for students in the Electricity program as well as for working electricians who want to further their skills and/or fulfill state certification and accreditation requirements. (FT) Not applicable to the Associate Degree.

40 Data, Voice, and Video Cabling for Electricians

**3 hours lecture, 3 units
Grade Only**

This course is a study of current data, voice, and video cabling systems. Emphasis is placed on practical application of the material through in-class projects. This course is intended for students in the Electricity program as well as for working electricians who want to further their skills and/or fulfill state certification and accreditation requirements. (FT) Not Applicable to Associate Degree.

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UC = University of California Applicable
Milestone formerly referred to as Skill Level

111 Electrical Theory I**3 hours lecture, 3 units
Grade Only***Corequisite:* Electricity 111L.*Advisory:* English 101 with a grade of "C" or better, or equivalent.

This course is a study of the fundamentals of electrical theory, including basic safety practices and a history of industrial electricity and electronics. Emphasis is placed on theory and application of fundamental units of measurement, wire splicing, permanent magnets, electromagnets, and electrical/electronic symbols. Topics include a study of the theory of electricity sources (including batteries, mechanical generators, photocells, and thermocouples), basic Ohm's Law theory, as well as calculations of Direct Current (DC), DC voltage, DC current, resistance, DC power, inductance, and capacitance in DC circuits. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

111L Electrical Laboratory I**6 hours lab, 2 units
Grade Only***Corequisite:* Electricity 111.*Advisory:* English 101 with a grade of "C" or better, or equivalent.

This course involves laboratory practice in basic electricity. Laboratory time includes instruction and laboratory assignments in the proper use and care of electrical tools, meters, instruments, and equipment with an emphasis on safe working habits. Laboratory assignments include the application of basic direct and alternating current (AC) circuitry and wattage of fabricated circuits. Students gain additional practice in the development of electrical diagrams using proper symbols and nomenclature. An introduction to inductance and capacitance in direct current (DC) circuits is included. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

121 Electrical Theory II**3 hours lecture, 3 units
Grade Only***Prerequisite:* Electricity 111 and Electricity 111L, each with a grade of "C" or better, or equivalent.*Corequisite:* Electricity 121L.

This course involves a detailed study of the theory of alternating current (AC) including the generation of AC; electrical degrees, effective and average values; addition and subtraction of phasors; resistance,

inductance, and capacitance in AC circuits; reactance; and impedance. This course also includes an in-depth study of single-phase series and parallel circuits, three-phase power generation, current and voltage relationships in wye and delta connected power sources and loads. A study of three-phase transformers with various connections and under various load conditions is also included. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

121L Electrical Laboratory II**6 hours lab, 2 units
Grade Only***Prerequisite:* Electricity 111 and Electricity 111L, each with a grade of "C" or better, or equivalent.*Corequisite:* Electricity 121.

This course involves laboratory practice in direct current and alternating current circuits. Activities include practice with basic direct current (DC) or DC motor circuits, power transmission lines, and instruction in the safe use of three-phase power supplies. This course also includes practice using alternating circuits (AC) or AC voltmeters, AC ammeters, and AC wattmeters to measure phase angle, real power, apparent power, watts, vars, volt-amps, and power factor in single-phase and poly-phase circuits including three-phase circuits with wye and delta connections. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

131 Electrical Theory III**3 hours lecture, 3 units
Grade Only***Prerequisite:* Electricity 121 and Electricity 121L, each with a grade of "C" or better, or equivalent.*Corequisite:* Electricity 131L.

This course involves practice in planning the installation of electrical circuits on construction jobs according to the National Electrical Codes (NEC) and Blueprints. This course also includes practice in making detailed drawings of electrical wiring circuits using standard symbols and estimating the wiring material required to complete a single family dwelling. Planning the installation of communication circuits, heating systems, service entrance equipment, remote control systems, motor starting equipment, circuit protective devices, control components, and pilot devices is also included. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

131L Electrical Laboratory III**6 hours lab, 2 units
Grade Only**

Prerequisite: Electricity 121, and Electricity 121L, each with a grade of "C" or better, or equivalent.

Corequisite: Electricity 131.

This course involves laboratory practice in the installation of construction wiring materials including installation and connection of lighting circuits, receptacle circuits, special purpose circuits, communication circuits, heating systems, service entrance equipment, remote control systems, electric motor circuits, and pilot devices. Safety is emphasized through practice in the installation electrical equipment according to blueprints and local and national codes. Instruction and practice in fire prevention and construction site safety habits are also included. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

141 Electrical Theory IV**3 hours lecture, 3 units
Grade Only**

Prerequisite: Electricity 131 and Electricity 131L, each with a grade of "C" or better, or equivalent.

Corequisite: Electricity 141L.

This course involves the advanced theory of the characteristics and uses of direct current generators, direct current motors, direct current motor controls, alternating current generators, and three-phase motors. This course also includes the advanced theory of the characteristics and uses of three-phase motors and three-phase controllers, single-phase motors and single-phase controllers, electronic devices, and static controls. Digital and logic controls are also investigated. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

141L Electrical Laboratory IV**6 hours lab, 2 units
Grade Only**

Prerequisite: Electricity 131 and Electricity 131L, each with a grade of "C" or better, or equivalent.

Corequisite: Electricity 141.

This course involves laboratory practice and experimentation with direct current (DC) generators, DC motors, three-phase alternators, squirrel-cage induction motors, and wound rotor induction motors. This course also includes laboratory practice and experimentation with induction motors, synchronous motors, and single-phase motors,

including split phase, capacitor start, universal, and repulsion-start induction run motors. Additionally, experiments are conducted with phase sequence, frequency, selsyn systems, and silicon controlled rectifier (SCR) speed controls. This course is designed as preparation for the major in electricity. (FT) AA/AS; CSU.

200 Electrical Control Systems**3 hours lecture, 3 units
Grade Only**

Prerequisite: Electricity 121 and Electricity 121L, each with a grade of "C" or better, or equivalent.

Corequisite: Electricity 200L.

This course is a study of electrical control system theory emphasizing standard motor controls, transducers, static control devices, programmed controllers, and remote electronic controls. This course is intended for students majoring in electricity as well as for working electricians who want to further their skills and/or fulfill state certification and accreditation requirements. (FT) AA/AS; CSU.

200L Electrical Control Systems Laboratory**6 hours lab, 2 units
Grade Only**

Prerequisite: Electricity 121 and Electricity 121L, each with a grade of "C" or better, or equivalent.

Corequisite: Electricity 200.

This course is a hands-on laboratory in electrical control systems. Emphasis is placed on standard motor controls, transducers, static control devices, programmed controllers, and remote electronic controls. This course is intended for students majoring in electricity as well as for working electricians who want to further their skills and/or fulfill state certification and accreditation requirements. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on

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page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Electronic Systems (ELDT)

123 Introduction to Digital Circuits

**3 hours lecture, 3 units
Grade Only**

Advisory: Concurrent enrollment in Electronic Systems 123L.

Limitation on Enrollment: This course is not open to students with previous credit for Electronic Systems 223 or Electronics 220.

This course is designed for students majoring in electronics and for students generally interested in electronics. It is an introduction to digital technology with an emphasis on understanding, constructing and troubleshooting digital integrated circuits. Course content includes number systems and codes, truth tables, Boolean functions, combinational logic, flip-flops, shift registers, counters, device characteristics, and programmable logic devices. (FT) AA/AS; CSU.

123L Digital Circuits Laboratory

**3 hours lab, 1 unit
Grade Only**

Corequisite: Completion of or concurrent enrollment in Electronic Systems 123 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Electronics 222A, or Electronic Systems 223L.

This laboratory course is designed to demonstrate introductory concepts of digital technology. Topics include a variety of digital electronic components and circuits. Emphasis is placed on developing skills in designing, analyzing, and constructing simple logic circuits, including basic digital blocks, combinational networks, and sequential networks. This course is designed for students majoring in electronics and those interested in electronics. (FT) AA/AS; CSU.

124 Basic DC Electronics

**4 hours lecture, 4 units
Grade Only**

Advisory: Concurrent enrollment in Electronic Systems 124L.

Limitation on Enrollment: This course is not open to students with previous credit for Electronics 120, 120A, 111 or Aviation Maintenance Technology 120. This course is a study of basic electricity and electrical circuit concepts. Course content includes direct current (DC), series and parallel circuits, Ohm's and Kirchhoff's Laws, mesh and nodal analysis, the Superposition Theorem, and Thevenin's and Norton's Theorems. Throughout the course, students apply the concepts of basic electronics to solve problems commonly found in industrial settings. This course is designed for students interested in learning DC electronics. (FT) AA/AS; CSU.

124L Basic DC Laboratory

**3 hours lab, 1 unit
Grade Only**

Advisory: Concurrent enrollment in: Electronic Systems 124

Limitation on Enrollment: This course is not open to students with previous credit for Electronics 121A or Digital Technology 124L.

This laboratory course demonstrates the basic concepts of electricity and electrical circuits and familiarizes students with various electronic components and circuits. Course content is designed to develop students skills in reading schematic diagrams, fabricating simple circuits and safely using basic test equipment for measuring and troubleshooting. Equipment used in this lab includes volt-ohm-amp meters, digital multimeters (DMMs), and power supplies. This course is designed for students interested in acquiring laboratory skills in DC electronics. (FT) AA/AS; CSU.

125 AC Circuit Analysis

**4 hours lecture, 4 units
Grade Only**

Advisory: Electronic Systems 124 and 124L, each with a grade of "C" or better, or equivalent.

Advisory: Concurrent enrollment in: Electronic Systems 125L

Limitation on Enrollment: This course is not open to students with previous credit for Digital Technology 125.

This course is a study of alternating current (AC) electronic concepts. Course material includes the study of inductor and capacitor transients in direct current (DC) circuits, alternating current (AC) electronic basics, impedance, phasors, power and energy in series, parallel and combination circuits, network theorems, transformers, passive filters and response curves. This course is designed for students

interested in learning AC electronics. (FT) AA/AS; CSU.

125L DC/AC Circuit Analysis Laboratory with Pspice

**3 hours lab, 1 unit
Grade Only**

Advisory: Electronic Systems 124 and 124L, each with a grade of “C” or better, or equivalent.

Advisory: Concurrent enrollment in: Electronic Systems 125

Limitation on Enrollment: This course is not open to students with previous credit for Digital Technology 125L.

This laboratory course demonstrates the basic concepts of hands-on and computer-assisted direct current and alternating current (DC/AC) circuit analysis. Equipment used in this course includes oscilloscopes, frequency counters, function generators, digital multimeters (DMM) and microcomputers utilizing industry standard software applications (Pspice). This course is designed for students interested in learning PSpice and acquiring laboratory skills in AC electronics. (FT) AA/AS; CSU.

126 Using C AND C++ for Technology

**3 hours lecture, 3 units
Grade Only**

Advisory: Concurrent enrollment in: Electronic Systems 126L.

This course is an introduction to the C and C++ programming languages as they apply to the analysis of the theoretical concepts of electronic technology. The course is structured around a variety of prepared programming assignments that emphasize problem-solving techniques and use of the computer as a problem-solving tool with applications in electronics. Students work with state of the art and industry standard microcomputers, hardware, software application programs, and compilers. This course is designed as preparation for majors in the field of Electronics. (FT) AA/AS; CSU.

126L Using C and C++ for Technology Laboratory

**3 hours lab, 1 unit
Grade Only**

Advisory: Concurrent enrollment in Electronic Systems 126.

This course provides the laboratory component to the study of C and C++ programming languages as they apply to the analysis of the theoretical concepts of electronic technology. The course is structured

around a variety of prepared programming assignments that emphasize problem-solving techniques and use of the computer as a problem-solving tool with applications in electronics. Students work with state of the art and industry standard microcomputers, hardware, software application programs and compilers. This course is designed as preparation for majors in the field of Electronics. (FT) AA/AS; CSU.

143 Semiconductor Devices

**3 hours lecture, 3 units
Grade Only**

Advisory: Electronic Systems 124 and 124L, each with a grade of “C” or better, or equivalent; and concurrent enrollment in Electronic Systems 143L.

Limitation on Enrollment: This course is not open to students with credit for Electronic Systems 140A or Digital Technology 143.

This course is an introductory study of the characteristics and operation of semiconductor devices and their associated circuitry. Emphasis is placed on junction diodes, bipolar-junction transistors, power supplies, feedback, linear integrated circuits (IC's), multistage amplifiers, push-pull amplifiers, junction field-effect transistors (JFETs), metal oxide semiconductor field-effect transistors (MOSFETs) and PSpice analysis. (FT) AA/AS; CSU.

143L Semiconductor Devices Laboratory

**4.5 hours lab, 1.5 units
Grade Only**

Advisory: Electronic Systems 124 and 124L, each with a grade of “C” or better, or equivalent; and concurrent enrollment in Electronic Systems 143.

Limitation on Enrollment: This course is not open to students with credit for Electronics Technology 142A or Digital Technology 143L.

This laboratory course focuses on the theoretical concepts of electronic devices and circuits through practical experimentation, PSpice analysis and computer simulation. Course content and materials include circuit operation, testing, troubleshooting and measurement of diodes, transistors and field-effect transistors (FETs), the use of computer-

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aided engineering software, microcomputers, oscilloscopes, digital multimeters (DMM's), function generators, and power supplies. (FT) AA/AS; CSU.

144 OP-AMPS, Sensors and Computers
3 hours lecture, 3 units
Grade Only

Advisory: Concurrent enrollment in Electronic Systems 144L; and completion of or concurrent enrollment in Electronic Systems 143 and 143L, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Digital Technology 144. This course is a study of operational amplifier theory and circuit applications. Course content emphasizes sensors, transducers, data conversions, and the associated circuitry necessary to condition outputs for interface to a computer. Applications to analog-to-digital and digital-to-analog conversions, optical sensors, displacement transducers and instrumentation devices are included. This course is designed as preparation for majors in the field of Electronics. (FT) AA/AS; CSU.

144L OP-AMPS and Sensors Laboratory
4.5 hours lab, 1.5 units
Grade Only

Advisory: Concurrent enrollment in Electronic Systems 144; and completion of or concurrent enrollment in Electronic Systems 143 and 143L, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Digital Technology 144L. This course provides the laboratory component to the study of operational amplifier theory and circuit applications. Course content emphasizes sensors, transducers, data conversions and the associated circuitry necessary to condition outputs for interface to a computer. Applications to analog-to-digital and digital-to-analog conversions, optical sensors, displacement transducers and instrumentation devices are included. This course is designed as preparation for majors in the field of Electronics. (FT) AA/AS; CSU.

224 Microprocessor Design
3 hours lecture, 3 units
Grade Only

Advisory: Completion of or concurrent enrollment in Electronic Systems 123 and Electronic Systems 123L, each with a grade of "C" or better, or equivalent and concurrent enrollment in Electronic Systems 224L.

This course is an applied study of digital circuits in microcomputer systems. Throughout the course, students examine the overall architecture of microcomputer systems, the interfacing of memory and input/output (I/O) devices, and machine language programming for the Z-80 microprocessor. (FT) AA/AS; CSU.

224L Microprocessor Design Laboratory
4.5 hours lab, 1.5 units
Grade Only

Advisory: Completion of or concurrent enrollment in Electronic Systems 123 and Electronic Systems 123L, each with a grade of "C" or better, or equivalent concurrent enrollment in Electronic Systems 224. This laboratory course demonstrates the application of digital circuits in microprocessor systems. Course content includes assembly of printed circuit boards, troubleshooting of microprocessor-based designs and software/firmware design and troubleshooting. (FT) AA/AS; CSU.

225 Microcontrollers
3 hours lecture, 3 units
Grade Only

Corequisite: Completion of or concurrent enrollment in: Electronic Systems 123, 124 and 225L, each with a grade of "C" or better, or equivalent.

Advisory: Mathematics 107 with a grade of "C" or better, or equivalent.

This course focuses on the fundamentals of both the hardware and software aspects of the microcontroller. Typical devices that are connected to the microcontroller are: switches, light emitting diodes, seven segment displays, stepper motors and a matrix keypad. An engineering evaluation board is used as the development system for the controller. Structured programming and flow charts are emphasized. Code is written in assembly language, compiled and then downloaded to the controller. This course is intended for students majoring in Engineering Technology. (FT) AA/AS; CSU.

225L Microcontrollers Laboratory
4.5 hours lab, 1.5 units
Grade Only

Corequisite: Completion of or concurrent enrollment in: Electronic Systems 123L, 124L and 225, each with a grade of "C" or better, or equivalent.

This laboratory demonstrates microcontroller applications. The course emphasizes microcontroller construction, design, programming and troubleshooting. Students conduct the laboratory

with a software development kit (SDK) and microcontroller trainer equipment. (FT) AA/AS; CSU.

227 Introduction to Lasers and Fiber Optics
3 hours lecture, 3 units
Grade Only

Advisory: Concurrent enrollment in Electronic Systems 227L; and completion of or concurrent enrollment in Electronic Systems 124 and 124L, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Digital Technology 144. This course is an introductory study of lasers, optical power meters, and laser systems designed to familiarize students with various industry supported lasers/fiber optics families. Emphasis is placed on providing students with a working knowledge of lasers and the ability to troubleshoot in the field. Topics covered include the properties of light, emission and absorption of light, lasing action, the temporal and spatial characteristics of lasers, optical energy, optical fibers, light sources, light receivers, fiber optic geometry, alignment and splicing techniques, communication links, and fiber optic system design. (FT) AA/AS; CSU.

227L Lasers and Fiber Optics Laboratory
3 hours lab, 1 unit
Grade Only

Advisory: Concurrent enrollment in Electronic Systems 227; and completion of or concurrent enrollment in Electronic Systems 124 and 124L, each with a grade of "C" or better, or equivalent.

This laboratory course is designed to familiarize students with the elements and operation of lasers, optical power meters, and laser and fiber optics systems through experiments and projects conducted individually and in groups. This course provides students with the opportunity to enhance and further investigate the concepts presented in Electronic Systems 227. (FT) AA/AS; CSU.

228 Communication Circuits
3 hours lecture, 3 units
Grade Only

Advisory: Concurrent enrollment in: Electronic Systems 228L.

Advisory: Completion of or concurrent enrollment in: Electronic Systems 143, 143L, 144 and 144L, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Technology 228.

This course is a study of basic communication theory, circuitry, and troubleshooting including transmission and reception of Amplitude Modulated (AM), Frequency Modulated (FM), and digital signals. The course is intended for students seeking careers in radio, TV and digital data communication technology, and the telecommunication industry. (FT) AA/AS; CSU.

228L Communication Circuits and Certification Laboratory
3 hours lab, 1 unit
Grade Only

Advisory: Concurrent enrollment in Electronic Systems 228; and completion of or concurrent enrollment in Electronic Systems 143, 143L, 144, and 144L, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Digital Technology 228L. This laboratory course is a verification of the theoretical concepts of communication theory and mastery of the basic electronic instruments used in industry. This course is designed to prepare students to take the Associate Electronics Technician (CET) and the 3rd Class Radio Telecommunications Technician (NARTE) examinations. (FT) AA/AS; CSU.

229 Advanced Telecommunications Networks
3 hours lecture, 3 units
Grade Only

Advisory: Concurrent enrollment in Electronic Systems 229L; and completion of or concurrent enrollment in Electronic Systems 126, 126L, 228, and 228L, each with a grade of "C" or better, or equivalent.

This course is a project-oriented course that focuses on local, metropolitan, and wide-area network hardware system design, installation, maintenance and troubleshooting. Hardware topics presented include topologies, transmission media, access and interfacing techniques. Hardware technologies utilized include Fiber Distributed Data Interface (FDDI), Asynchronous Transfer Mode (ATM), Fast

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Internet and Token Ring. This course prepares students to take the Network Plus exam. (FT) AA/AS; CSU.

229L Advanced Telecommunications Networks Laboratory

**3 hours lab, 1 unit
Grade Only**

Advisory: Concurrent enrollment in Electronic Systems 229; and completion of or concurrent enrollment in Electronic Systems 126, 126L, 228, and 228L, each with a grade of "C" or better, or equivalent.

This is a team project-oriented course that familiarizes students with the hardware and software needed to establish, run, and maintain advanced telecommunications networks at the local, metropolitan, and wide-area levels. (FT) AA/AS; CSU.

232 Advanced Computer Design and Interfacing

**4 hours lecture, 4 units
Grade Only**

Prerequisite: Electronic Systems 225 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Electronic Systems 230 and Electronic Systems 231.

This course is an advanced, practical study of operating systems, microprocessor and microcontroller chips, system configurations, and bus architecture from a systems design perspective. This project-oriented course examines microprocessor machine language programming, hardware devices, hardware designs, system clock generation, bus characteristics, tri-state characteristics, buffers, input/output (I/O) techniques for interfacing to various peripherals, major microprocessor and microcontroller families, timing diagrams, memory, and chip-level troubleshooting. This course is intended for students wanting to gain detailed knowledge about design, interfacing, and programming of microprocessor and microcontroller systems. (FT) AA/AS; CSU.

232L Advanced Computer Designs Laboratory

**4.5 hours lab, 1.5 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Electronic Systems 225 and Electronic Systems 225L, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Electronic Systems 230L.

This is a practical course designed as a verification of the student's understanding of the theoretical concepts of computer and microcontroller based designs through construction and testing of a complete microcontroller system. Throughout the course, students work with several pieces of electronic test equipment currently used in the industry in order to build and troubleshoot their projects. Students are expected to locate and purchase necessary components and bread boarding materials. This course is intended for students wanting experience in designing, constructing, and testing advanced microprocessor and microcontroller systems. (FT)AA/AS; CSU.

270 Work Experience

**54-216 hours, 1-4 units
Grade Only**

Limitation on Enrollment: Must obtain a permission number from Work Experience Coordinator for registration. This course is not open to students with credit for Digital Technology 270.

A program of on-the-job learning experiences for students employed in a job related to their major. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. AA/AS; CSU.

290 Independent Study

**1-3 Hours by Arrangement, 1-3 units
Grade Only**

Limitation on Enrollment: Must obtain a permission number from instructor for registration. This course is not open to students with credit for Digital Technology 290.

For advanced students in Electronic Systems or Electro-Optical Technology who wish to pursue special problems and projects relating to their particular subject area. The student meets with the instructor at specific intervals and is expected to do primary research, analyze problems and submit reports. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on

page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Engineering (ENGE)

50A Introduction to Robotics Team Project Design

**1 hour lecture, 1.5 hours lab, 1.5 units
Pass/No Pass**

Limitation on Enrollment: This course is not open to students with previous credit for Engineering 265A. This introductory course addresses the knowledge, skills and activities needed to understand and promote the design phase of a robotics competition team. Team building and collaborative learning are stressed. Students design an autonomous robot using state-of-the-art computer software that supports the engineering disciplines of mechanical, electrical, computer programming, web design, and technical writing. This course is intended for students with an interest in robotics who need to gain experience as members of an engineering design team. (FT) AA/AS.

50B Introduction to Robotics Team Project Construction

**1 hour lecture, 1.5 hours lab, 1.5 units
Pass/No Pass**

Limitation on Enrollment: This course is not open to students with previous credit for Engineering 265A. This introductory course addresses the knowledge, skills and activities needed to organize and promote the construction phase of a robotics competition team. Team building and collaborative learning are stressed. Students construct an autonomous robot using state-of-the-art computer software that supports the engineering disciplines of mechanical, electrical, computer programming, web design, and technical writing. This course is intended for students with an interest in robotics who need to gain experience as members of an engineering team constructing a new design. (FT) AA/AS.

50C Introduction to Robotics Team Project Testing and Deployment

**1 hour lecture, 1.5 hours lab, 1.5 units
Pass/No Pass**

Limitation on Enrollment: This course is not open to students with previous credit for Engineering 265A.

This introductory course addresses the knowledge, skills and activities needed to organize and promote the testing and competition phases of a robotics competition team. Team efficiency and collaborative learning are stressed. Students aid in the testing and deployment of an autonomous robot using state-of-the-art computer software that supports the engineering disciplines of mechanical, electrical, computer programming, web design, and technical writing. This course is intended for students with an interest in robotics who need to gain experience as members of an engineering team testing and deploying a new design. (FT) AA/AS.

50D Advanced Robotics Team Project Design

**1 hour lecture, 1.5 hours lab, 1.5 units
Pass/No Pass**

Advisory: Engineering 50A with a grade of "C" or better, or equivalent.

This advanced course addresses the knowledge, skills and activities needed to organize, promote, and manage the design phase of a robotics competition team. Evaluation of research is used to develop an improved design using state-of-the-art computer software that supports the engineering disciplines of mechanical, electrical, computer programming, web design, and technical writing. This course is intended for advanced students with an interest in robotics who need to gain experience as managers of an engineering design team. (FT) AA/AS.

50E Advanced Robotics Team Project Construction

**1 hour lecture, 1.5 hours lab, 1.5 units
Pass/No Pass**

Advisory: Engineering 50B with a grade of "C" or better, or equivalent.

This advanced course addresses the knowledge, skills and activities needed to organize, promote, and manage the construction phase of a robotics competition team. Students supervise the construction of electrical, mechanical, and computer systems for an autonomous robot using state-of-the-art computer software that supports the

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Milestone formerly referred to as Skill Level

engineering disciplines of mechanical, electrical, computer programming, web design, and technical writing. This course is intended for advanced students with an interest in robotics who need to gain experience as supervisors of an engineering team constructing a new design. (FT) AA/AS.

50F Advanced Robotics Team Project Testing and Deployment

**1 hour lecture, 1.5 hours lab, 1.5 units
Pass/No Pass**

Advisory: Engineering 50C with a grade of "C" or better, or equivalent.

This advanced course addresses the knowledge, skills and activities needed to manage the testing and deployment phases of a robotics design for competition. Students manage the testing and deployment of an autonomous robot using state-of-the-art computer software supporting the engineering disciplines of mechanical, electrical, computer programming, web design, and technical writing. This course is intended for advanced students with an interest in robotics who need to gain experience as members of an engineering team testing and deploying a new design. (FT) AA/AS.

101 Introduction to Engineering

**1.5 hours lecture, 1.5 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Engineering 265B. This course is an introduction to engineering in the work environment, including familiarization with the different occupations of engineering. Emphasis is placed on engineering requirements, analysis, design, implementation and testing of actual engineering problems. Students learn the proper use of engineering tools including computers, statistics and computer simulations. This course is designed to help students decide whether to embark on an engineering or technical career. (FT) AA/AS; CSU.

108 Dimensioning and Tolerancing

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Manufacturing Technology 108 or Manufacturing Engineering 105. This course is an introductory study of dimensioning and tolerancing. The course content emphasizes symbology, datum reference, tolerances of location and of form and runout, and includes a complete orientation to American National Standard Institute

Standard Y14.5. This course is intended for students majoring in Engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU.

111 Introduction to Computer-Aided Design **2 hours lecture, 3 hours lab, 3 units Grade Only**

Limitation on Enrollment: This course is not open to students with credit for Drafting 111.

This course is an introductory study of computer-aided design, engineering, and manufacturing. Emphasis is placed on providing the student with a hands-on overview of microcomputer systems and executable features of interactive software programs that are used in industry. This course is intended for students majoring in Engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU.

116 Computational Methods in Engineering **2 hours lecture, 3 hours lab, 3 units Grade Only**

Corequisite: Completion of or concurrent enrollment in Mathematics 151 with a grade of "C" or better, or equivalent.

This course introduces students to computational methods and their applications to computer-based problem solving for engineers. Students formulate and solve engineering problems through modeling and the application of numerical methods, then evaluate and rationalize the results using Matlab computational engineering software. Topics include functions and arrays, data and file management, loops, control flow, and standard library packages and software. Numerical methods covered include matrix operations, Gauss Reduction, Newton Raphson, curve fitting, interpolation, numerical differentiation and numerical integration. Engineering application include finite element analysis, dynamics, computational fluid mechanics, data visualization and image analysis. This course is designed for students majoring in engineering. (FT) AA/AS; CSU; UC.

151 Computer-Aided Design **6 hours lab, 2 units Letter Grade or Pass/No Pass Option**

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations. This course is an introduction to 3D computer-aided mechanical design using SolidWorks software. Emphasis is placed on the creation of basic to intermediate solid parts, the application

of parametric 3D feature-based solid modeling, assignments of materials, building assemblies, developing exploded views and production drawings that include orthographic, pictorial, section, auxiliary, and detail views. Students apply software features, such as finite element analysis (FEA) and motion simulation. The course begins by covering basic features of all parts, continues with building simple assemblies with those parts, and culminates with creating both detail part and assembly output-product drawings. Students apply skills to group design projects, which include written reports and mechanical dimensioning using ANSI standards, Geometric Dimensioning and Tolerancing (GD&T), and thread notation per ASME Y14.5M-2009. Laboratory exercises that include industrial applications and practices are designed to strengthen these concepts. This course is intended for students majoring in Engineering or other disciplines including those in the physical sciences, and is designed for those with or without previous 3D CAD modeling application experience. (FT) AA/AS; CSU; UC.

152 Engineering Design

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Engineering 151 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with Drafting 120.

This course is a study of engineering design with an emphasis on the presentation and interpretation of engineering drawings. Course content includes tolerance studies, gear and computer-aided manufacturing (CAM) design, as well as fit and function studies relating to manufacturing processes with computer-aided drawing (CAD) as they influence design decisions. This course is intended for students majoring in Engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU.

200 Statics

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Physics 195 with a grade of “C” or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Mathematics 151 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Engineering Technology 150.

This course is a study of applications of the principles of mechanics to rigid bodies in equilibrium. The course content emphasizes areas of friction, centroids, center of gravity, analysis of structures, moments of inertia and methods of virtual work. This course is intended for students majoring in Engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU; UC.

210 Properties of Materials

**3 hours lecture, 3 units
Grade Only**

Prerequisite: Physics 195 with a grade of “C” or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Chemistry 200 and Chemistry 200L, each with a grade of “C” or better, or equivalent.

This course is a study of the chemical, physical and mechanical properties of engineering materials including metals, ceramics, polymers and composites. Emphasis is placed on function and structure as they relate to specific design considerations. This course is intended for students majoring in Engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU; UC.

240 Digital Systems

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Science 265.

This course is an introduction to modeling, analysis, and design of digital systems primarily at the Logic Design Level. Students apply the basic theory of switching networks, use Boolean Algebra to analyze and synthesize switching networks, design logic gate networks, use simplification schemes to minimize part count and cost while providing optimum performance, and design and analyze sequential and combinational circuits using flip-flops and logic gate networks. This course is designed for students majoring in engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU; UC.

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Milestone formerly referred to as Skill Level

250 Dynamics**3 hours lecture, 3 units
Grade Only**

Prerequisite: Engineering 200 with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Mathematics 252 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Engineering Technology 250.

This course is a study of fundamental principles of bodies in motion with an emphasis on kinematics and kinetics of particles and rigid bodies, moving reference frames, work-energy, linear and angular momentum relationships and their application to engineering problems. Vector notation is used throughout the course. This course is intended for students majoring in Engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU; UC.

260 Electric Circuits**3 hours lecture, 3 units
Grade Only**

Prerequisite: Physics 196 and Mathematics 151, each with a grade of "C" or better, or equivalent.

This course is an introduction to the study of network analysis, basic network theorems, mesh and nodal analysis with independent and controlled sources. Emphasis is placed on steady state and transient responses of networks, complex frequency transformation, alternating current (AC), circuit analysis, power, reactive apparent power and power factor, and balanced three-phase electric systems. This course is intended for students majoring in Engineering or disciplines included in the physical sciences. (FT) AA/AS; CSU; UC.

270 Work Experience**54 - 216 hours other, 1-4 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Must obtain an Permission Number from Work Experience Coordinator for enrollment.

A program of on-the-job learning experiences for students employed in a job related to their major or their educational goal. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Engineering Technology (ENGN)**120 Principles of Engineering Technology****2 hours lecture, 3 hours lab, 3 units
Grade Only**

This course is an introduction to the field of engineering technology. Emphasis is placed on providing students with a balance of theoretical and practical engineering principles through hands-on projects related to design, thermodynamics, hydraulics, electrical circuits, and materials. This class is designed for students interested in pursuing an academic or vocational career in engineering technology or electronics. (FT) AA/AS; CSU.

122 Digital Electronics**2 hours lecture, 3 hours lab, 3 units
Grade Only**

This course is a project-based study of digital electronics for the field of engineering technology. Emphasis is placed on the application of digital electronics to product development for current and future market trends. Topics include Ohm's and Kirchhoff's laws as they apply to circuit analysis, capacitance, digital versus analog waveforms, digital circuit design, flip-flops, spec sheet analysis, and microprocessor programming. This class is designed for students interested in pursuing an academic or vocational career in engineering or electronics. (FT) AA/AS; CSU.

124 Engineering Design and Development**2 hours lecture, 3 hours lab, 3 units
Grade Only**

This course is a hands-on, project-based study of the field of Engineering Design. Emphasis is placed on providing students with practical knowledge related to the field, including the fundamentals of design, portfolio development, sketching, modeling, dimensioning, presentation, production and marketing. This class is designed for advanced-level

high school students interested in engineering or engineering technology. (FT) AA/AS; CSU.

126 Engineering Computer Integrated Technology

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

This course is a hands-on, project-based study of the integration of computers in the field of Engineering. Emphasis is placed on providing students with working knowledge of Computer Modeling, Computer Numerical Control (CNC), Computer-aided Manufacturing (CAM) software, robotics and automation, and Computer Integrated Manufacturing (CIM). This class is designed for advanced-level high school students interested in pursuing an academic or vocational career in engineering or engineering technology. (FT) AA/AS; CSU.

128 Electronics for Technology

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

This fast-paced course is a study of electronics for non-majors. Emphasis is placed on basic electronics, devices, and digital electronics. Topics include current use of electronics in industries and businesses. This course is intended for students not majoring in electronics who are interested in fundamental electronics knowledge and experience. (FT) AA/AS; CSU.

130 Introduction to Engineering Design

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

This course is an introductory study of Engineering Design. Emphasis is placed on providing students with an overall perspective on the design process as well as on the details of product development, including computer-aided design (CAD). Topics include the history of design, current career opportunities, portfolio development, geometric relationships, modeling, dimensioning, production and marketing. This class is designed for students interested in pursuing an academic or vocational career in engineering technology or electronics. (FT) AA/AS; CSU.

275 Engineering Technology Industrial Internship

**1 hour lecture, 9 hours lab, 4 units
Grade Only**

Prerequisite: Manufacturing Engineering Technology 101, 105 and 115, each with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Manufacturing Engineering Technology 110 and 230, each with a grade of "C" or better, or equivalent.

This is an industrial internship course for multiple programs under Engineering Technology field. Students apply technical knowledge learned in previous courses in the program to design and conduct experiments; analyze and interpret data; design manufacturing systems, processes and components; and identify, formulate and solve technical problems. Throughout the internship, students have opportunities to acquire new knowledge and sharpen their problem solving, communication and team work skills. The internship experience also helps students with personal growth, professional development and awareness of the impact of engineering solutions on the industry and society. (FT) AA/AS; CSU.

English Language Acquisition (ELAC)

The English Language Acquisition (ELAC) program is committed to supporting non-native speakers of English in developing their academic English language skills to enable them to succeed in college courses. We offer a range of courses designed to engage students from low-intermediate to advanced levels of English. Core courses consist of integrated academic reading, writing, and grammar as well as academic listening and speaking. Specialized courses in areas such as pronunciation and focused grammar are also offered to support the individual needs of each student.

The ELAC program consists of four levels. Students are placed at a Milestone based on a guided self-placement.

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The first level, L19, of the ELAC program is low-intermediate and consists of a nine-unit course, ELAC 15 (Introduction to English Literacy and Communication), that supports English language learning in academic reading, writing, grammar, as well as academic listening and speaking. Some students at the beginning levels of developing their academic English skills may find this course challenging, and may be better served through Continuing Education prior to taking ELAC 15. Students who desire progressing through the program at an accelerated pace may take a two-unit elective course, ELAC 16 (Accelerated English Language Acquisition), which supports students in preparing to challenge the second level course of academic reading, writing, and grammar, ELAC 25.

The second level, L20, of the ELAC program is intermediate and consists of two core courses, each of which are 6 units - ELAC 23 (Academic Listening and Speaking I) and ELAC 25 (Integrated Reading, Writing, and Grammar I). We recommend that students attending part-time take ELAC 23 prior to taking ELAC 25. Students who desire progressing through the program at an accelerated pace may take a two-unit elective course, ELAC 26 (Accelerated English Language Acquisition), which supports students in preparing to challenge the third level course of academic reading, writing, and grammar, ELAC 35.

The third level, L30, of the ELAC program is high-intermediate and consists of two core courses - ELAC 33 (Academic Listening and Speaking II), which is 3 units, and ELAC 35 (Integrated Reading, Writing, and Grammar II), which is 6 units. We recommend students take ELAC 33 prior to taking ELAC 35 if they prefer to take 6 units or less in a semester.

The fourth level, L40, of the ELAC program consists of a 6 unit advanced level course, ELAC 145 (Integrated Reading, Writing, and Grammar III). Upon successful completion of ELAC 145, students are prepared to take English courses [ENGL 101 or ENGL 101X (ENGL 101 & 31)].

Students who place at L19, L20, or L30 should complete both ELAC 145 and ELAC 33 prior to taking English courses. Students who place at L40 only need to complete ELAC 145.

For more information about the ELAC program, please refer to the webpage found by searching "ELAC" on the campus website: <https://www.sdccity.edu>

5A English Language Grammar – Low–Intermediate/Intermediate

**1–2 hours lecture, 1–2 units
Pass/No Pass**

Advisory: Completion of or concurrent enrollment in English Language Acquisition 15 with a grade of "C" or better, or equivalent or Milestone L20 or English Language Acquisition 25 with a grade of "C" or better, or equivalent.

This course focuses on the study of English grammar for students whose first language is other than English. Emphasis is placed on clearly communicating one's thoughts and ideas. Topics include analyzing basic grammar structures and applying knowledge of these structures in producing and editing one's own texts. This course is intended for non-native speakers of English at the low-intermediate and intermediate levels. (FT) Not applicable to the Associate Degree.

5B English Language Grammar – High–Intermediate/Advanced

**1–2 hours lecture, 1–2 units
Pass/No Pass**

Advisory: Completion of or concurrent enrollment in English Language Acquisition 35 with a grade of "C" or better, or equivalent or English Language Acquisition 45 with a grade of "C" or better, or equivalent or Milestone R40 and W40.

This course focuses on the study of English grammar for students whose first language is other than English. Emphasis is placed on clearly communicating one's thoughts and ideas. Topics include analyzing more advanced grammar structures and applying knowledge of these structures in producing and editing one's own texts. This course is intended for non-native speakers of English at the high-intermediate and advanced levels. (FT) Not applicable to the Associate Degree.

7 English Pronunciation

**1–2 hours lecture, 1–2 units
Pass/No Pass**

This course is designed to assist non-native English learners develop oral/aural language skills through the improvement of understanding spoken English and articulation of the language. Emphasis is placed on clear and effective oral/aural communication and pronunciation. Topics include oral/aural discrimination, stress, rhythm, and intonation. This course is intended for non-native speakers of English preparing for college-level coursework. (FT) Not applicable to the Associate Degree.

15 Introduction to English Literacy and Communication

9 hours lecture, 9 units

Letter Grade or Pass/No Pass Option

Advisory: Milestone L19. Students are advised to take the ELAC placement test prior to enrollment and perform at L19.

Limitation on Enrollment: This course is not open to students with previous credit for English 7, English 58, English for Speakers of Other Languages 19, or English for Speakers of Other Languages 19A. This course provides non-native English speakers with the skills to integrate reading, writing, grammar, and oral communication at the low-intermediate level. Emphasis is placed on comprehending, summarizing, and interpreting audio and written texts as well as expressing one's own thoughts and opinions. Topics include communicating in an academic setting, applying critical reading strategies, writing paragraphs and short compositions in a variety of genres, as well as analyzing and producing grammatical structures in context. This course is intended for non-native speakers of English preparing for college-level coursework. (FT) Not applicable to the Associate Degree.

16 Accelerated English Language Acquisition - Low-Intermediate Level

2 hours lecture, 2 units

Pass/No Pass

Corequisite: English Language Acquisition 15 or Milestone L20.

Note: Concurrent enrollment in English Language Acquisition 15 is required. Assessment Skill Level L20 is not required.

This course is intended for students who are currently enrolled in English Language Acquisition 15 and who desire additional support or more advanced reading, writing, and grammar activities. Emphasis is placed on deeper learning and understanding of English Language Acquisition 15 course content and producing more rigorous assignments. The course consists of personalized instruction and peer review to revise and expand upon the length and complexity of assignments in English Language Acquisition 15. (FT) Not applicable to the Associate Degree.

23 Academic Listening and Speaking I

6 hours lecture, 6 units

Letter Grade or Pass/No Pass Option

Prerequisite: English Language Acquisition 15 with a grade of "C" or better, or equivalent or Milestone L20.

Limitation on Enrollment: This course is not open to students with previous credit for English for Speakers of Other Languages 22.

This course provides non-native English speakers with academic listening and speaking skills at the intermediate level. Emphasis is placed on developing accuracy and fluency in oral communication skills as well as understanding and responding to audio texts from a variety of genres. This course is intended for non-native speakers of English preparing for college-level coursework. (FT) Not applicable to the Associate Degree.

25 Integrated Reading, Writing, and Grammar I

6 hours lecture, 6 units

Letter Grade or Pass/No Pass Option

Prerequisite: English Language Acquisition 15 with a grade of "C" or better, or equivalent or Milestone L20.

Limitation on Enrollment: This course is not open to students with previous credit for English 8, English 60, or English for Speakers of Other Languages 20 and English for Speakers of Other Languages 21. This course provides non-native English speakers with the skills to integrate reading, writing, and grammar at the intermediate level. Emphasis is placed on applying critical reading strategies to a variety of genres, writing paragraph and multi-paragraph compositions based on assigned readings, and analyzing and producing grammatical structures in context. This course is intended for non-native speakers of English preparing for college-level coursework. (FT) Not applicable to the Associate Degree.

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Milestone formerly referred to as Skill Level

26 Accelerated English Language Acquisition - Intermediate Level

2 hours lecture, 2 units
Pass/No Pass

Corequisite: English Language Acquisition 25. This course is intended for students who are currently enrolled in English Language Acquisition 25 and who desire additional support or more advanced reading, writing, and grammar activities. Emphasis is placed on deeper learning and understanding of English Language Acquisition 25 course content. The course consists of personalized instruction and peer review to revise and expand upon the length and complexity of assignments in English Language Acquisition 25. (FT) Not applicable to the Associate Degree.

33 Academic Listening and Speaking II

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: English Language Acquisition 23 with a grade of "C" or better, or equivalent or Milestone L30.

Limitation on Enrollment: This course is not open to students with previous credit for English for Speakers of Other Languages 32.

This course provides non-native English speakers with academic listening and speaking skills at the high-intermediate to advanced levels. Emphasis is placed on linguistic and interpersonal skills necessary for participation in a variety of formal and informal tasks in the college environment as well as understanding and responding to audio texts from a variety of genres. This course is intended for non-native speakers of English preparing for college-level coursework. (FT) Not applicable to the Associate Degree.

35 Integrated Reading, Writing and Grammar II

6 hours lecture, 6 units
Letter Grade or Pass/No Pass Option

Prerequisite: English Language Acquisition 25 with a grade of "C" or better, or equivalent or Milestone L30.

Limitation on Enrollment: This course is not open to students with previous credit for English 9, English 6, or English for Speakers of Other Languages 30 and English for Speakers of Other Languages 31. This course provides non-native English speakers with the skills to integrate reading, writing, and grammar at the high-intermediate level. Emphasis is placed on applying critical reading strategies

to a variety of genres, writing multi-paragraph compositions (including introduction of the academic essay) based on assigned readings and other sources, and analyzing and producing grammatical structures in context. This course is intended for non-native speakers of English preparing for college-level coursework. (FT) Not applicable to the Associate Degree.

145 Integrated Reading, Writing, and Grammar III

6 hours lecture, 6 units
Letter Grade or Pass/No Pass Option

Prerequisite: English Language Acquisition 35 with a grade of "C" or better, or equivalent or Milestone L40.

Corequisite: Completion of or concurrent enrollment in English Language Acquisition 33 with a grade of "C" or better, or equivalent. Students who meet the prerequisite by completion of English Language Acquisition 35 must have completed English Language Acquisition 33 or be concurrently enrolled in English Language Acquisition 33.

Limitation on Enrollment: This course is not open to students with previous credit for English 10, English 62, English for Speakers of Other Languages 40, English for Speakers of Other Languages 45, or English Language Acquisition 45.

This course provides non-native English speakers with the skills to integrate reading, writing, and grammar at the advanced level. Emphasis is placed on applying critical reading strategies to a variety of genres as well as analysis and synthesis of sources. The course also focuses on writing multi-paragraph compositions (including the academic essay), responding to and integrating sources, as well as analyzing and producing grammatical structures in context. This course is intended for non-native speakers of English preparing for college-level coursework. (FT) AA/AS; CSU; UC.

English (ENGL)

31 Academic Literacy

2 hours lecture, 2 units
Pass/No Pass

Prerequisite: English Language Acquisition 145 with a grade of "C" or better, or equivalent or Milestone R40 and W40 or

Corequisite: English 101 or English 105.

This is a course for students who have assessed into basic skills English courses and desire to concurrently enroll in English 101: Reading and Composition or English 105: Composition and Literature. Academic Literacy creates success in English 101 or 105 by focusing on reading, writing, and critical thinking. Students learn to articulate arguments, create academic identities, and build and strengthen relationships with texts, others, and themselves. (FT) Not applicable to the Associate Degree.

101 Reading and Composition

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English Language Acquisition 145 with a grade of "C" or better, or equivalent or Milestone R40 and W40. Students with Milestone R30 and W30 must enroll in English 101X (English 101 and English 31 learning community).

This course is designed for transfer-level students or for those who want to develop competence in college level reading and composition. Students read, analyze, discuss and think critically using a variety of works and sources. Based on these activities, students write essays, fully documented research projects, and other types of texts for various purposes and audiences. This written work, which demonstrates effective, logical, and precise expression of ideas, totals at least 6,000 graded words. Designated sections of this course may be taught from a specific cultural perspective. (FT) AA/AS; CSU; UC; C-ID ENGL 100.

105 Composition and Literature

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English Language Acquisition 145 with a grade of "C" or better, or equivalent or Milestone R40 and W40. Students with Milestone R30 and W30 must enroll in English 105X (English 105 and English 31 learning community).

This is a composition course using literature as a background for improving writing skills. Students discuss the general nature and elements of literature and literary criticism by reading and analyzing representative works of fiction, drama, and poetry. Based on this subject matter, students are required to write a variety of critical papers, including a research paper, comprising at least 6,000 graded words. This course is intended for students majoring in English or those students interested in literature and in developing strong critical and analytical writing skills. Designated sections of this course may

be taught from a specific cultural perspective. (FT) AA/AS; CSU; UC.

202 Introduction to Linguistics

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is designed to introduce students to the field of linguistics. In this course, students develop an understanding of the nature of language through the study of core areas in linguistics, including phonetics, phonology, morphology, syntax, semantics, and pragmatics. Students also read, write, and think critically about related fields such as psycholinguistics, sociolinguistics, historical linguistics, and animal communication. This course is intended for students majoring in English or those with a general interest in linguistics. (FT) AA/AS; CSU; UC.

205 Critical Thinking and Intermediate Composition

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This intermediate-level college reading and writing course uses the principles of rhetoric to build research and critical thinking skills required for success at four-year institutions. Emphasis is placed on reading, evaluating and writing argumentative prose. Students locate, evaluate and integrate outside sources into their writing assignments, which total at least 8,000 words for the semester. This course is intended for students majoring in English and all students interested in improving critical thinking and writing skills. (FT) AA/AS; CSU; UC; C-ID ENGL 105.

208 Introduction to Literature

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

(FT) = A field trip may be required for this course.
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This course provides an inquiry into the basic nature of literature. Students read and analyze representative literary works in fiction, non-fiction, poetry, and drama from various cultures and periods, applying practical critical techniques in essays, reports, and exams. This course is designed for students with a general interest in literature as well as for those majoring in the field. (FT) AA/AS; CSU; UC; C-ID ENGL 120.

209 Literary Approaches to Film

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent or English 105 with a grade of "C" or better, or equivalent.

This course is a study of film from a literary perspective. Emphasis is placed on reading and writing about film, film analysis, and cultural impact. Topics include film composition, genre, and literary criticism. This course is designed for English majors and all students interested in literature and/or film. (FT) AA/AS; CSU; UC.

210 American Literature I

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is a survey of American literature from its beginning to the late 19th century, including representative works from the Colonial Period (1588-1765), the New Republic (1765-1829), the American Renaissance (1829-1860), and the beginnings of Realism (1860-1880). Students critically analyze and discuss diverse authors of these periods, addressing relevant historical, social, political, philosophical, aesthetic, cultural, and religious issues. This course is intended for English majors and anyone interested in American Literature. (FT) AA/AS; CSU; UC; C-ID ENGL 130.

211 American Literature II

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

A survey of American Literature from the late 19th century to the present, which includes representative works from the Age of Realism (1865-1914), the Modernist Period (1914-1945), and the Postmodern Era (1950-present). Students critically analyze and discuss diverse authors of these periods,

addressing relevant historical, social, political, philosophical, aesthetic, cultural, and religious issues. This course is intended for English majors and anyone interested in American Literature. (FT) AA/AS; CSU; UC; C-ID ENGL 135.

215 English Literature I: 800–1799

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course offers a survey of British literature from the Anglo-Saxon period to the pre-Romantic period (approximately 800 to 1799), including representative works from the Old and Middle English periods, the Renaissance and the Elizabethans, the Cavalier, Metaphysical, and Puritan periods, the Restoration and the Neoclassical periods. Students read and discuss the major authors of these periods, addressing relevant social, political, cultural, and religious issues. Through a variety of learning activities and assignments, students critically engage with specific works and their literary, cultural, historical and political significance, considering the interplay between text and context. This course is intended for English majors and all students interested in literature. (FT) AA/AS; CSU; UC; C-ID ENGL 160.

216 English Literature II: 1800 – Present

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course offers a survey of British literature from the Romantic period to the 21st century (approximately 1800 to the present) including representative works from the pre-Romantic and Romantic periods; the Victorian and later Victorian period; the Modern period; the Postmodern period; the postcolonial era; and the contemporary era. Students read and discuss the major authors of these periods, addressing relevant social, political, cultural, and religious issues. Students also critically analyze, in essays and research papers, authors, specific works, and other topics as assigned. This course is intended for students majoring in English and those interested in English Literature. (FT) AA/AS; CSU; UC; C-ID ENGL 165.

220 Masterpieces of World Literature I: 1500 BCE – 1600 CE

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course offers a survey of world literature in translation, from the ancient world through the European renaissance (approximately 2150 BCE - 1600 CE), including the established classic literature of the Near East, Tibet, Greece and Rome, India, China, Japan, Africa, the Islamic world, and Europe. Students read and discuss a variety of authors from these regions, and address relevant social, cultural, and religious issues. Students critically analyze, in essays and papers, specific authors, works, themes, and other topics as assigned. This course is intended for English majors and anyone interested in World Literature. (FT) AA/AS; CSU; UC; C-ID ENGL 140.

221 Masterpieces of World Literature II: 1600 – Present

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course offers a survey of world literature in translation, from the close of the European renaissance through the present time, including the literature of Asia, Europe, North America, Central America, South America, Africa and the Islamic world. Students read and discuss a variety of authors from these regions, and address relevant social, religious, and cultural issues. Students critically analyze, in essays and papers, specific authors, works, themes, and other topics as assigned. This course is intended for English majors and anyone interested in World Literature. (FT) AA/AS; CSU; UC; C-ID ENGL 145.

234 Hip Hop Literature: A Poetry Class

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course is an introduction to Hip Hop literature/poetry. Emphasis is placed on key figures, poets, and other artists who have profoundly contributed to the genre and its different styles and forms. The course explores Hip Hop poetry’s connections to other prominent forms of literature and literary theories. This course is designed for English majors

and anyone interested in Hip Hop literature. (FT) AA/AS; CSU; UC.

237 Women in Literature

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course is an introduction to images of women in literature and to women writers. Students read from a variety of genres including stories, poetry, novels, and essays, written by different authors from a range of social, cultural, and ethnic backgrounds. This course is intended for students majoring in English or anyone interested in literature. (FT) AA/AS; CSU; UC.

238 Evaluating Children’s Literature

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent or English 105 with a grade of “C” or better, or equivalent.

This course is a survey of children’s literature from folktales to current works. The course compares works from a variety of authors, cultures, and historical periods while emphasizing current American works. Principles of literary criticism are applied in evaluating the themes, language, and structure of works studied. This class is suitable for students interested in literature as well as for students who are preparing to teach. (FT) AA/AS; CSU.

240 Shakespeare

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course is a survey of William Shakespeare’s work. Emphasis is placed on analyses of representative plays and poems from the perspectives of theme, character, structure, and language in historical and contemporary contexts. This course is designed for students majoring in English and those with a

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

general interest in the author or the period. (FT) AA/AS; CSU; UC.

245A Writing Creative Nonfiction

**3 hours lecture, 3 units
Grade Only**

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for English 245. This is an intensive course in writing creative nonfiction. Emphasis is placed on the principles and methods of creative nonfiction and the critical analysis of student and master works addressing personal, social, political, and/or cultural issues. Students submit original creative nonfiction for class discussion and are introduced to the workshop format to further their work. This course is intended for students majoring in English and those preparing for writing-related careers in areas, such as publishing, journalism, communications, and education. (FT) AA/AS; CSU; UC.

245B Advanced Creative Nonfiction

**3 hours lecture, 3 units
Grade Only**

Prerequisite: English 245A with a grade of "C" or better, or equivalent.

This course is an intensive course advanced creative nonfiction. Emphasis is placed on advanced techniques in character, point of view, narrative, plot, language, style, and structure. The creative process includes meetings with the professor to set goals. Students use fictional techniques of character development, plotting, setting, language, verb tense, and theme to compose nonfiction at an advanced level. This course is intended for students majoring in English and those preparing for writing-related careers in areas, such as publishing, journalism, communications, and education, and those desiring to develop a writing portfolio. (FT) AA/AS; CSU; UC.

247A Writing Seminar - Poetry

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for English 247.

This course is an introduction to writing poems. Emphasis is placed on the basic elements, techniques and invention strategies for writing poems, with some instruction in basic forms and

evaluative techniques. This course is intended for students majoring in English and all students interested in writing poems. (FT) AA/AS; CSU; UC.

247B Advanced Writing Seminar - Poetry

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: English 247A with a grade of "C" or better, or equivalent.

This course provides advanced instruction in writing poems. Emphasis is placed on sophisticated forms, techniques, and evaluation, as well as on preparing poems for submission and publication. This course is intended for students majoring in English and all students interested in writing poems. (FT) AA/AS; CSU; UC.

249A Introduction to Creative Writing I

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for English 249.

This course is an introduction to creative writing with a focus on fiction and poetry. Students use the basic elements of poetry and fiction writing to analyze the works of professional writers, to create original pieces, and to critique the work of their peers as well as their own. This course is intended for students majoring in English and all students interested in fiction and fiction writing. (FT) AA/AS; CSU; UC.

249B Introduction to Creative Writing II

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: English 249A with a grade of "C" or better, or equivalent.

This course is an exploration and application of creative writing with a focus on fiction and poetry. Students use complex elements of poetry and fiction writing to analyze the works of professional writers, to create original pieces, and to critique the work of their peers as well as their own. This course is intended for students majoring in English and all students interested in fiction and fiction writing. (FT) AA/AS; CSU; UC.

252A Fundamentals of Fiction Writing

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for English 253. This is an intensive course in fiction writing techniques at the beginning level. Students read and evaluate master works of fiction based on the basic elements of fiction writing introduced in class. Students write original fiction for submission to the class for discussion and integrate criticism offered by the instructor and peers through the editing process. This course is intended for students interested in a better understanding of literature and/or use of language as well as students interested in a writing-related career, such as publishing, journalism, communications, or education. (FT) AA/AS; CSU; UC.

252B Intermediate Fiction Writing
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: English 252A with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for English 254. This is an intensive course in fiction writing techniques at the intermediate level. Students read and evaluate master works of fiction that address personal, social, political, and/cultural issues and integrate such elements into their original pieces of fiction. Students are expected to articulate, accept, and incorporate criticism through an increasingly sophisticated editorial process. This course is intended for students interested improving their creative writing skills and/or developing a portfolio prior to transferring to a four-year institution. (FT) AA/AS; CSU; UC.

290 Independent Study
3–9 hours other, 1-3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.
 This course is for students who wish to conduct additional research, a special project, or learning activities in the field of English. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

402 Advanced Technical Writing
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: English 205 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: Special Admission - must be admitted to program.
 This course is a study of the tools and techniques used in technical documentation and editing. Emphasis is placed on the application of effective communication in technical writing. Topics include effective workplace writing; composing formal reports, presentations, and proposals; intercultural communication and collaborative writing; synthesizing data for representation; creating instructions, procedures, or manuals; and critical reading of technical publications for editing policies. Other topics include research writing in APA format and grant writing. This course is designed for students in the Cyber Defense and Analysis program. (FT) Baccalaureate Degree Credit.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

English for Speakers of Other Languages (ESOL)

See "English Language Acquisition (ELAC)" on page 435.

(FT) = A field trip may be required for this course.
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 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

Exercise Science (EXSC)

122A Cardio Zumba I

**3 hours lab, 1 unit
Grade Only**

This course is an introduction to Cardio Zumba that incorporates several Latin styles of dance including but not limited to merengue, salsa, cumbia and reggaeton. Emphasis is placed on fundamental Zumba technique, vocabulary and fitness concepts. This course is designed for all students interested in Zumba as a cardiovascular, movement-oriented sport, as well as students majoring in kinesiology. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

122B Cardio Zumba II

**3 hours lab, 1 unit
Grade Only**

Advisory: Exercise Science 122A with a grade of "C" or better, or equivalent.

This is the second course in Cardio Zumba. This level will ask students to increase the intensity of movement, including higher impact. Students will use additional arm and hip variations with new steps. Rhythm styles will expand to include Cha Cha, Mambo, Pop, Soca, Bollywood and Samba. This course is designed for students interested in Zumba as a cardiovascular, movement-oriented sport, as well as those majoring in kinesiology. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

123 Adapted Physical Fitness

**2–3 hours lab, 0.5 – 1 units
Grade Only**

Limitation on Enrollment: A physician's medical release form is required. This course is not open to students with previous credit for Physical Education 184.

This course is designed for students with disabilities to provide opportunities for exercise and activities to improve cardiorespiratory endurance, flexibility, muscular endurance, strength, stress management, and coordination. Activities can include walking, dance, rhythm activities, wheelchair pushing, jogging, relaxation training, and exercises for joint mobility. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

124A Core and Cardio Fitness I

**2–3 hours lab, 0.5 – 1 unit
Pass/No Pass**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 153 or Physical Education 153W.

This course provides students with introductory level knowledge and practice in attaining and maintaining core and cardio fitness levels. Instruction emphasizes cardiovascular fitness as well as core fitness through individual and circuit training. This course is the first in a series of four core and cardio fitness courses. It is intended for students seeking to develop introductory physical fitness habits or Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

124B Core and Cardio Fitness II

**2–3 hours lab, 0.5 – 1 unit
Pass/No Pass**

Advisory: Exercise Science 124A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 153X.

This course provides introductory level students with beginning knowledge and practice in attaining and maintaining core and cardio fitness levels. Instruction emphasizes beginning cardiovascular fitness as well as core fitness through individual and circuit training. Other topics include a variety of core fitness tests, stability ball exercise routines, and beginning level aerobic and core conditioning program design. This course is the second in a series of four core and cardio fitness courses. It is intended for students seeking to develop beginning physical fitness habits or Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

124C Core and Cardio Fitness III

**2–3 hours lab, 0.5 – 1 unit
Pass/No Pass**

Advisory: Exercise Science 124B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 153Y.

This course provides beginning level students with intermediate knowledge and practice in attaining and maintaining core and cardio fitness levels. Instruction emphasizes intermediate cardiovascular

fitness as well as core fitness through individual and circuit training. Other topics include fitness level assessment and conditioning for the treadmill; continuous, interval, and fartlek aerobic conditioning elements; beginning plyometric exercises; coronal and oblique plane movements; and clinical evaluations such as blood pressure and blood lipid tests. This course is the third in a series of four core and cardio fitness courses. It is intended for students seeking to develop intermediate physical fitness habits or Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

124D Core and Cardio Fitness IV

2–3 hours lab, 0.5 – 1 unit
Pass/No Pass

Advisory: Exercise Science 124C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 153Z.

This course provides intermediate students with advanced knowledge and practice in attaining and maintaining core and cardio fitness levels. Instruction emphasizes advanced cardiovascular fitness as well as core fitness through individual and circuit training. Other topics include core and cardio fitness assessment data comparison; advanced core fitness assessments including plyometric tests; cardiovascular interval and sprint training; advanced plyometric training involving lateral movement; dietary analysis; and identification and incorporation of dietary modifications. This course is the fourth in a series of four core and cardio fitness courses. It is intended for students seeking to develop advanced physical fitness habits or Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

125A Aerobic Dance I

2–3 hours lab, 0.5 – 1 unit
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 103 or Physical Education 103W.

This course is an introduction to all forms of Aerobic Dance and movement. Emphasis is placed on fundamental Aerobic Dance technique, vocabulary, and performance concepts. This course is the first in a series of four aerobic dance courses. It is designed for all students interested in Aerobics as a cardiovascular, movement-oriented sport. (FT)

AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

125B Aerobic Dance II

2–3 hours lab, 0.5 – 1 unit
Grade Only

Advisory: Exercise Science 125A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 103X.

This course provides students with knowledge and practice in beginning Aerobic Dance principles. Emphasis is placed on beginning Aerobic Dance technique, vocabulary, strength, and performance concepts. Other topics include Cardio Latin dance rhythms and styles, additional dance vocabulary, expanded use of weights, and sports nutrition. This course is the second in a series of four aerobic dance courses. It is designed for all students interested in Aerobics as a cardiovascular, movement-oriented sport. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

125C Aerobic Dance III

2–3 hours lab, 0.5 – 1 unit
Grade Only

Advisory: Exercise Science 125B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 103Y.

This course provides students with knowledge and practice in intermediate level, complex forms of Aerobic Dance, its variations, and directional changes. Cardio Kickboxing technique and plyometric moves are added for a diverse, dynamic workout. Emphasis is placed on intermediate level Aerobic Dance technique, vocabulary, and performance concepts. This course is the third in a series of four aerobic dance courses. It is designed for all students interested in Aerobics as a cardiovascular, movement-oriented sport, and who have taken the beginning level version of this class. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
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Milestone formerly referred to as Skill Level

125D Aerobic Dance IV**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 125C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 103Z.

This course provides students with knowledge and practice in complex forms of advanced Aerobic Dance and its variations, such as Cardio Latin dance, Cardio Kickboxing, and Cardio Hip Hop styles and rhythms. Emphasis is placed on advanced levels of Aerobic Dance technique, vocabulary, and performance concepts. Other topics include advanced principles of body alignment such as movement combinations and jumps; advanced level plies such as sliding and jumping; and plyometrics. This course is the fourth in a series of four aerobic dance courses. It is designed for all students interested in Aerobics as a cardiovascular, movement-oriented sport, and who have taken the intermediate level version of this class. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

126A Cardio Conditioning I**2–3 hours lab, 0.5 – 1 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 123 or Physical Education 123W.

This course provides instruction in the basic skills necessary to improve aerobic fitness, cardiovascular health, muscular endurance/strength, and static flexibility. Topics include fitness terminology, identifying individual fitness level and areas to improve, basic exercise programming, proper warm up/cool down and resting/exercise heart rate. This class is designed for students interested in a healthy lifestyle as well as kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

126B Cardio Conditioning II**2 - 3 hours lab, 0.5-1 unit
Grade Only**

Advisory: Exercise Science 126A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 123X.

This course provides instruction in exercise programming through moderately intense activities including cross training, basic boxing, plyometrics, speed and agility, core stability, dynamic flexibility and nutrition. This course is designed to provide students the opportunity to continue the fundamental principles of physical fitness and their impact on life-long health and wellness. This class is designed for students interested in a healthy lifestyle as well as Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

126C Cardio Conditioning III**2–3 hours lab, 0.5-1 unit
Grade Only**

Advisory: Exercise Science 126B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 123Y.

This course is designed to provide students the opportunity to develop and implement a personalized fitness plan to help them pursue their lifelong commitment to life-long health and wellness. Topics include goal setting, training zones, and body specific training principles through moderate/highly intense activities. This class is designed for students interested in a healthy lifestyle as well as Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

126D Cardio Conditioning IV**2–3 hours lab, 0.5-1 unit
Grade Only**

Advisory: Exercise Science 126C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 123Z.

This course is the fourth in a series of Cardio Conditioning courses. Students develop, analyze and implement advanced group fitness plans. Topics include agility and jump training, running, sports cross training, advanced core training, stress management and nutrition. Data gathering and assessment methods are also covered. This class is designed for students interested in a healthy lifestyle as well as Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

127A Cardio Kickboxing I**2–3 hours lab, 0.5 – 1 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 133.

This is the first in a series of cardio kickboxing courses. This course is an introduction to cardiorespiratory fitness combined with basic non-contact kickboxing techniques, practices, and principles. Instruction includes basic upper body punching functions, basic kick techniques, and basic combination series of both upper body and lower body kickboxing routines. This class is designed for those who want to increase cardiovascular fitness using cardio kickboxing and who are interested in understanding the importance of the fitness aspect of their life. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

127B Cardio Kickboxing II**2–3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 127A with a grade of “C” or better, or equivalent.

This is the second in a series of cardio kickboxing courses. This course covers cardiorespiratory fitness combined with basic non-contact kickboxing techniques, practices, and principles. Instruction includes cardio kickboxing techniques, basic terminology, nutrition, and routine guidelines. This class is designed for those who want to increase cardiovascular fitness and who are interested in understanding the importance of the fitness aspect of their life. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

127C Cardio Kickboxing III**2–3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 127B with a grade of “C” or better, or equivalent.

This is the third in a series of cardio kickboxing courses. This course covers cardiorespiratory fitness combined with intermediate non-contact kickboxing techniques, practices, and principles. Instruction includes intermediate cardio kickboxing techniques, basic terminology, nutrition, and routine guidelines. This class is designed for those who want to increase cardiovascular fitness and who are interested in understanding the importance of the fitness aspect of their life and learn how to create a nutrition and intermediate fitness routine. (FT) AA/AS; CSU; UC, for

UC Transfer Limitations see a Counselor or reference ASSIST.org.

127D Cardio Kickboxing IV**2–3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 127C with a grade of “C” or better, or equivalent.

This is the fourth in a series of cardio kickboxing courses. This course covers cardiorespiratory fitness combined with advanced kickboxing techniques, practices, and principles. Instruction includes advanced non-contact cardio kickboxing techniques, terminology, nutrition, and routine guidelines. This class is designed for those who want to increase cardiovascular fitness and who are interested in understanding the importance of the fitness aspect of their life and learn how to create a nutrition and fitness routine. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

129A Step Aerobics I**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 104.

This is the first in a series of step aerobics courses. Step aerobics is a rigorous exercise course designed to increase both the fitness levels of participating students and their understanding of what constitutes a safe and effective exercise program. This course is an introduction to cardiorespiratory fitness combined with basic step aerobic techniques, practices, and principles. Instruction includes basic step aerobic techniques and combination series of 8 count step movement routines. Instruction includes a balanced exercise program of basic step aerobics, toning, stretching, and relaxation along with discussion of related health topics. This course is designed for students pursuing a kinesiology major and those interested in increasing their cardiovascular fitness. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

129B Step Aerobics II**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 129A with a grade of “C” or better, or equivalent.

This is the second in a series of step aerobics courses. Step aerobics is a rigorous exercise course designed to increase both the fitness levels of participating students and their understanding of what constitutes a safe and effective exercise program. Instruction includes a balanced exercise program of basic step routines with power alternatives, toning, stretching, and relaxation along with discussion of related health topics. This course is designed for students pursuing a kinesiology major and those interested in increasing their cardiovascular fitness and for those who are interested in creating their own basic fitness programs. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

129C Step Aerobics III**2–3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 129B with a grade of “C” or better, or equivalent.

This is the third in a series of step aerobics courses. Step aerobics is a rigorous exercise course designed to increase both the fitness levels of participating students and their understanding of what constitutes a safe and effective exercise program. Instruction includes a balanced exercise program of power step aerobic movements with combinations, toning, stretching, and relaxation along with discussion of related health topics. This class will teach the students how to design their own fitness program. This course is designed for students pursuing a kinesiology major and those interested in increasing their cardiovascular fitness. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

129D Step Aerobics IV**2–3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 129C with a grade of “C” or better, or equivalent.

This is the fourth in a series of step aerobics courses. Step aerobics is a rigorous exercise course designed to increase both the fitness levels of participating students and their understanding of what constitutes a safe and effective exercise program. Instruction includes a balanced exercise program

of advanced step aerobic combinations, toning, stretching, and relaxation along with discussion of related health topics. This course is designed for students pursuing a kinesiology major and those interested in increasing their cardiovascular fitness and who are interested in creating fitness and choreographed routines. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

130A Indoor Cycling I**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

This course is the first in a series of Indoor Cycling courses. Emphasis is placed on instruction in the basic fundamentals necessary to improve indoor cycling techniques and improve cardiovascular/aerobic fitness. Topics includes cycling terminology and ergonomics, overall fitness evaluation, various indoor cycling exercise regimens, and goal setting programs for individual health and fitness benefits. This class is designed for students interested in cardiovascular fitness improvement through indoor cycling (spinning). (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

130B Indoor Cycling II**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 130A with a grade of “C” or better, or equivalent.

This course is the second in a series of Indoor Cycling courses. Emphasis is placed on beginning to intermediate cycling techniques, heart rate calculations, fitness evaluations, and cardiovascular training and program design. Beginning level principles of physiology are explored including how to train to elicit a desired physiological response. This class is designed for students interested in aerobic fitness improvement through indoor cycling as well as Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

130C Indoor Cycling III**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 130B with a grade of “C” or better, or equivalent.

This course is the third in a series of Indoor Cycling courses. Emphasis is based on intermediate to advanced cycling techniques, interval training,

power cycling, and intermediate workload training. Intermediate level principles of physiology are explored including how to train within a workload range and why. This class is designed for students interested in aerobic fitness improvement through indoor cycling as well as Exercise Science or related majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

130D Indoor Cycling IV

24–54 hours lab, 0.5 – 1 units

Grade Only

Advisory: Exercise Science 130C with a grade of “C” or better, or equivalent.

This is the fourth course in a series of Indoor Cycling courses. Emphasis is placed on advanced cycling techniques, advanced interval training, advanced power cycling and advanced workload training. Advanced principles of physiology are explored including how to train within a workload and why. This class is designed for students interested in aerobic fitness improvement through advanced indoor cycling as well as Exercise Science or related majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

134 Adapted Weight Training

2–3 hours lab, 0.5 – 1 unit

Grade Only

Limitation on Enrollment: A physician’s medical release form is required. This course is not open to students with previous credit for Physical Education 182.

This course is designed for students with disabilities as an introduction to progressive resistance training. Emphasis is placed on developing cardiorespiratory and muscle endurance, muscle strength and flexibility and a healthy body composition through individualized safe and beneficial exercise programming. The course includes exercises that focus on relaxation, joint mobility, body maintenance, and activities for daily living. A physician’s medical release is required. AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

135A Individual Conditioning I

2–3 hours lab, 0.5 – 1 unit

Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 132 or Physical Education 132W.

This course provides individually programmed instruction in the fundamental skills and techniques of strength training and aerobic activity. The positive impact of physical education on health and wellness is explored and emphasized. This course is of particular interest to students wishing to enter the fields of sports medicine and athletics, as well as to students seeking to improve overall fitness. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

135B Individual Conditioning II

2–3 hours lab, 0.5 – 1 unit

Grade Only

Advisory: Exercise Science 135A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 132X.

This course provides individually programmed instruction in the beginning level skills of the 5 components of fitness. Students learn proper body mechanics for basic movement patterns utilizing a variety of different training modalities. Beginning level principles of physiology is explored including how to train to elicit a desired physiological response. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

135C Individual Conditioning III

2–3 hours lab, 0.5 – 1 unit

Grade Only

Advisory: Exercise Science 135B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 132Y.

This course provides individually programmed instruction in the intermediate principles of the 5 components of fitness. Students learn basic anatomy and build upon the principles of physiology learned in previous levels of this course to create both individual workouts and a long term workout plan to meet individualized conditioning goals. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

135D Individual Conditioning IV**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 135C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 132Z.

This course provides individually programmed instruction in the advanced principles of the 5 components of fitness. Students learn how to instruct others in proper movement patterns and body mechanics for several strength training and cardiovascular training modalities. Students utilize their knowledge of the advanced principles of anatomy and physiology to create a workout plan for another individual, identifying modifications, and variations of exercises depending on the unique needs of the subject they are designing a workout for. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

139A Weight Training I**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 166 or Physical Education 166W.

This is the first in a series of progressive resistance training courses. Instruction includes proper methods of weight training, use of weight training machines, cardio exercise equipment, lifting of free weights, and warm up/cool down. Instruction also includes charting exercises, introduction to major muscle groups and the weight training exercises to improve strength and range of motion. This class is designed for students interested in a healthy lifestyle as well as exercise science majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

139B Weight Training II**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 139A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 166X.

This is the second in a series of progressive resistance training courses. Emphasis is placed on alternative training methods including circuit and interval training, hill climbing, and fat burning. This course

includes basic nutrition to help build muscle and/or reduce body weight utilized in student development of a personal fitness program. This class is designed for students interested in a healthy lifestyle as well as exercise science majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

139C Weight Training III**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 139B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 166Y.

This is the third in a series of progressive resistance training courses. Emphasis is placed on the use of the weight training machines, cardio exercise equipment, and Olympic lifts. This course covers alternate methods of resistance training including medicine balls, plyo balls, bosu balls, elastic cords, and TRX belts. This class is designed for students interested in a healthy lifestyle as well as exercise science majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

139D Weight Training IV**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 139C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 166Z.

This is the fourth in a series of progressive resistance training courses. This course covers the proper use of weight lifting machines, cardio exercise equipment, and alternate methods of resistance training and lifting of free weights. This class is designed for students interested in a healthy lifestyle as well as exercise science majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

141A Total Body Conditioning I**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

This course is the first in a series of total body conditioning courses. Emphasis is placed on developing proper training techniques necessary to improve muscular strength and endurance using compound and accessory exercises in rapid

sequence. Topics will include identification of major movement patterns and modifications based on ability levels, basic strength exercises for muscle groups with emphasis on the core, and safety practices. When this course is offered for three hours per week, the additional time is utilized for skill development. This course is designed for kinesiology majors and all students interested in improving fitness. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

141B Total Body Conditioning II

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 141A with a grade of "C" or better, or equivalent.

This course is the second in a series of total body conditioning courses. Emphasis is placed on improving muscular strength and endurance and cardiorespiratory endurance using compound and accessory exercises and cardiorespiratory intervals in rapid sequence. Topics will include identification of muscle groups used in single and multi-joint movement exercises, intermediate strength exercises for muscle groups with emphasis on functional exercises, and use of appropriate modifications for varying ability levels. When this course is offered for three hours per week, the additional time is utilized for skill development. This course is designed for kinesiology majors and all students interested in improving fitness. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

141C Total Body Conditioning III

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 141B with a grade of "C" or better, or equivalent.

This course is the third in a series of total body conditioning courses. Emphasis is placed on improving muscular strength and endurance and cardiorespiratory endurance using compound and accessory exercises and cardiorespiratory intervals in rapid sequence. Topics will include understanding of advanced exercise techniques, advanced strength and plyometric exercises for muscle groups with emphasis on functional exercises. When this course is offered for three hours per week, the additional time is utilized for skill development. This course is designed for kinesiology majors and all students interested in improving fitness. (FT) AA/AS; CSU;

UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

142 Hiking for Fitness I – Fundamentals

**1.5 – 6 hours lab, 0.5 – 2 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 188.

This course provides instruction in the fundamental skills required for hiking. Emphasis is placed on proper warm-up and warm down, walking form and injury prevention and treatment. This course is intended for all students interested in fundamental hiking and personal fitness. When this course is offered for one or two units, the additional time is utilized for skill development in the group hiking leadership. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

143A Outdoor Cycling Level I

**1.5 – 6 hours lab, 0.5-2 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 187.

This course provides instruction in the skills required for outdoor cycling. Emphasis is placed on proper warm-up and warm-down, cycling form on flat terrain, and changing flat tires. Students design a personal fitness plan around outdoor cycling. This course is intended for all students interested in cycling and personal fitness. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

143B Outdoor Cycling Level II

**3–6 hours lab, 1–2 units
Grade Only**

Advisory: Exercise Science 143A with a grade of "C" or better, or equivalent.

This course provides instruction in the skills required for outdoor cycling. Emphasis is placed on proper warm-up and warm-down, cycling form, building endurance, ascending and descending hills, and bicycle maintenance. Students design a personal

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Milestone formerly referred to as Skill Level

fitness plan around outdoor cycling. This course is intended for all students interested in cycling and personal fitness. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

144A Fitness Walking I

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 154.

This course introduces students to various walking techniques and basic principles of aerobic and cardiovascular health. It is intended for Kinesiology majors and all students interested in a healthy lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

144B Fitness Walking II

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 144A with a grade of “C” or better, or equivalent.

This beginning-level course covers the principles of aerobic and cardiovascular health through various walking techniques. Instruction in fitness principles, stress reduction, weight management, and heart health are also covered. This course is intended for Kinesiology majors and all students interested in a healthy lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

144C Fitness Walking III

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 144B with a grade of “C” or better, or equivalent.

This intermediate-level course covers the principles of aerobic and cardiovascular health through various walking techniques. Students design basic walking programs that include walking frequency, duration, intensity, and mode. Instruction in fitness principles, stress reduction, weight management, heart health, individual training zones, and fitness assessments are also covered. This course is intended for Kinesiology majors and all students interested in a healthy lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

144D Fitness Walking IV

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 144C with a grade of “C” or better, or equivalent.

This advanced-level course covers the principles of aerobic and cardiovascular health through various walking techniques. Students design individualized warm-up, walking, and cool-down programs and calculate and employ individual target heart rate zones for weight management and cardiovascular endurance. Instruction in fitness principles, stress reduction, weight management, heart health, individual training zones, fitness assessments, and lifestyle changes are also covered. This course is intended for Kinesiology majors and all students interested in a healthy lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

145A Yoga I

**2 - 3 hours lab, 0.5-1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 168.

This is the first of four levels of classes relating to yoga. This course is an introduction to fundamental yoga practices and principles. Instruction includes learning the fundamentals of yoga postures. The students will also gain a fundamental understanding of the practices of relaxation techniques and breathing practices. This course is designed for students who want to increase health, longevity and who are interested in understanding the importance of the fitness aspect of their life. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

145B Yoga II

**2 - 3 hours lab, 0.5-1 unit
Grade Only**

Advisory: Exercise Science 145A with a grade of “C” or better, or equivalent.

This is the second of four levels of classes relating to yoga. This course is an introduction to fundamentals of basic yoga practices and principles. Instruction includes basic yoga postures, guided relaxations, and breathing practices, as well as some basic stress reduction techniques. This course is designed for students interested in utilizing basic yoga and stress reduction techniques to help increase their health

and longevity. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

145C Yoga III

**2 - 3 hours lab, 0.5-1 unit
Grade Only**

Advisory: Exercise Science 145B with a grade of "C" or better, or equivalent.

This is the third of four levels of classes relating to yoga. This course will cover intermediate yoga practices and principles including some intermediate inversions. Instruction includes intermediate yoga postures, guided relaxations, basic inversions, breathing practices, and basic partner yoga as well as stress reduction techniques and nutritional analysis. This course is designed for students interested in learning about both fitness and nutrition. The students will utilize intermediate yoga to help increase their health and longevity. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

145D Yoga IV

**2 - 3 hours lab, 0.5-1 unit
Grade Only**

Advisory: Exercise Science 145C with a grade of "C" or better, or equivalent.

This is the fourth of four levels of classes relating to yoga. This course will cover advanced yoga practices and principles. Instruction includes advanced yoga postures, guided relaxations, inversions, breathing practices, and partner yoga as well as stress reduction techniques and nutritional analysis. This course is designed for students interested in developing their own workout regime utilizing advanced yoga to help increase their health and longevity. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

147A Kickboxing I

**2-3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 233.

This is the first in a series of kickboxing courses. Topics include fundamental kickboxing terminology, safety, physical fitness, and controlled sparring. Emphasis is placed on single strike upper body kickboxing combinations. This course is intended for all students interested in fundamental level kickboxing. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

147B Kickboxing II

**2-3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 147A with a grade of "C" or better, or equivalent.

This is the second in a series of kickboxing courses. Topics include beginning kickboxing terminology, safety, physical fitness, and controlled sparring. Emphasis is placed on double strike kickboxing combinations that include the lower body. This course is intended for all students interested in beginning level kickboxing. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

147C Kickboxing III

**2-3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 147B with a grade of "C" or better, or equivalent.

This is the third in a series of kickboxing courses. Topics include intermediate kickboxing terminology, safety, physical fitness, and controlled sparring. Emphasis is placed on triple strike kickboxing combinations that include the full body. This course is intended for all students interested in intermediate level kickboxing. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

147D Kickboxing IV

**2-3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 147C with a grade of "C" or better, or equivalent.

This is the fourth in a series of kickboxing courses. Topics include advanced kickboxing terminology, safety, physical fitness, and controlled sparring. Emphasis is placed on four strike kickboxing combinations that include the full body. This course is intended for all students interested in advanced level kickboxing. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

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Milestone formerly referred to as Skill Level

148A Mixed Martial Arts I**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 232.

This is the first in a series of mixed martial arts exercise courses. Emphasis is placed on fundamental mixed martial arts terminology, safety, self-defense, etiquette, punches, blocks, strikes, kicks, stances, pressure points, and forms. This course is intended for all students interested in fundamentals techniques including but not limited to Thai-boxing, judo, jiu jitsu, and boxing as referenced by the International Mixed Martial Arts Federation organization. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

148B Mixed Martial Arts II**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 148A with a grade of “C” or better, or equivalent.

This is the second in a series of mixed martial arts exercise courses. Emphasis is placed on beginning mixed martial arts terminology, safety, self-defense, etiquette, punches, blocks, strikes, kicks, stances, pressure points, and forms. This course is intended for all students interested in beginning techniques including but not limited to Thai-boxing, judo, jiu jitsu, and boxing as referenced by the International Mixed Martial Arts Federation organization. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

148C Mixed Martial Arts III**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 148B with a grade of “C” or better, or equivalent.

This is the third in a series of mixed martial arts exercise courses. Emphasis is placed on intermediate mixed martial arts terminology, safety, self-defense, etiquette, punches, blocks, strikes, kicks, stances, pressure points, and forms. This course is intended for all students interested in intermediate techniques including but not limited to Thai-boxing, judo, jiu jitsu, and boxing as referenced by the International Mixed Martial Arts Federation organization. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

148D Mixed Martial Arts IV**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 148C with a grade of “C” or better, or equivalent.

This is the fourth in a series of mixed martial arts exercise courses. Emphasis is placed on advanced mixed martial arts terminology, safety, self-defense, etiquette, punches, blocks, strikes, kicks, stances, pressure points, and forms. This course is intended for all students interested in advanced techniques including but not limited to Thai-boxing, judo, jiu jitsu, and boxing as referenced by the International Mixed Martial Arts Federation organization. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

154A Badminton I**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 108.

This course is the first in a series of four badminton courses. This course provides instruction and court experience in the skills, strategies and rules necessary to play badminton at the novice level. Instruction includes the basic strokes, vocabulary and sportsmanship. This course is intended for novice level badminton players. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

154B Badminton II**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 154A with a grade of “C” or better, or equivalent.

This course is the second in a series of four badminton courses. Emphasis is placed on beginning level skills, shots, serves, footwork and strategies. This course is intended for kinesiology majors and all students interested in incorporating the game of badminton into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

154C Badminton III**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 154B with a grade of “C” or better, or equivalent.

This course is the third in a series of four badminton courses. Emphasis is placed on intermediate level skills, shots, serves, footwork and strategies for singles and doubles play. This course is intended for kinesiology majors and all students interested in incorporating the game of badminton into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

154D Badminton IV

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 154C with a grade of “C” or better, or equivalent.

This course is the fourth in a series of four badminton courses. Emphasis is placed on advanced level skills, and strategies for singles and doubles tournament play. This course is intended for kinesiology majors and all students interested in incorporating the game of badminton into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

156A Baseball I

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 111.

This course is designed to introduce the student to the game of baseball at the college level. Emphasis is placed on fielding ground balls, base running, outfield play, and the techniques and practice of bunting, including the sacrifice bunt, drag bunt, and push bunt. Topics also include the history of baseball, rules, terminology, safety procedures, values, and etiquette. This course is intended for novice level baseball players. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

156B Baseball II

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 156A with a grade of “C” or better, or equivalent.

This beginning level course in baseball is designed to continue the skill development in baseball and to introduce students to the concepts of wellness and a healthy lifestyle through baseball activities. Emphasis is placed on the batting stance and batters swing techniques, including balance, base, front side direction, contact position, and vision. Topics include

ball flight, pitch selection, location recognition, count management, body weight transition, and contact point. Baseball fitness is included and encompasses cardio conditioning, plyometrics, and stretching as they pertain to the sport. This course is intended for intermediate level baseball players. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

156C Baseball III

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 156B with a grade of “C” or better, or equivalent.

This intermediate-advanced level course in baseball provides instruction and practice in specialty defense such as bunt coverages, cuts and relays, first and third situations, and pick-off plays. Students practice and analyze specialty defensive situations to improve overall defensive awareness on the baseball field and to become a more well-rounded defensive player. Topics include terminology, pre-pitch preparation, foot work, body position before and during game play, and the fundamentals of playing catch. Baseball fitness includes cardio conditioning, plyometrics, and stretching as they pertain to the sport. This course is intended for intermediate-advanced level baseball players. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

156D Baseball IV

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 156C with a grade of “C” or better, or equivalent.

This advanced level course in baseball is designed for students to apply both offensive and defensive baseball skills in competition. Emphasis is placed on instruction and practice in game situations through inner squad games arranged between teams made up of class members. The mental aspect of the game is explored and applied throughout the course. This course is intended for advanced baseball players. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

(FT) = A field trip may be required for this course.
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Milestone formerly referred to as Skill Level

158A Basketball I**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 112.

This course is the first in a series of four basketball courses. This course introduces students to the game of basketball. Instruction includes basic individual offensive and defensive fundamental skills, history of the game, terminology, rules, etiquette, proper warm-up and cool down and safety. Emphasis is placed on games using less than full teams and half court situations. This course is designed for anyone who has an interest in playing basketball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

158B Basketball II**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 158A with a grade of “C” or better, or equivalent.

This course is the second in a series of four basketball courses. This course provides students the opportunity to improve individual beginning skills and introduces individual offensive moves and team concepts. Topics include transition basketball, team offense and defense as well as theories of basketball conditioning. Emphasis is placed on 5-5 play and full court situations and strategies of team play. This class is designed for those with a basic knowledge and ability to play basketball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

158C Basketball III**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 158B with a grade of “C” or better, or equivalent.

This course is the third in a series of four basketball courses. This course provides students the opportunity to improve individual intermediate skills through self analysis of strengths and weaknesses and introduces full court pressure play. Students are expected to write programs to improve individual skills. Topics include full court zone and man pressure, full court offense and specialty plays. Emphasis is placed on skill work drills, 5-5 play and full court situations. This class is designed for those that have above an intermediate knowledge and skill level in basketball. (FT) AA/AS; CSU; UC, for UC

Transfer Limitations see a Counselor or reference ASSIST.org.

158D Basketball IV**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 158C with a grade of “C” or better, or equivalent.

This course is the fourth in a series of four basketball courses. This course provides students the opportunity to develop technical skills necessary to coach the game of basketball and stresses the development of advanced skills and team play. Topics include analysis of team play, writing a practice plan, how to scout an opponent and evaluation of individual play. Emphasis is placed on skill work drills and full court tournament play. This class is designed for those that have an intermediate knowledge of basketball and possess an advanced skill level. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

166A Golf I**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 126.

This course provides golf instruction and practice. Emphasis is placed on the fundamentals of the grip, stance, alignment, and the techniques and practice of the short game strokes of pitching, chipping and putting. Topics include the rules, terminology, safety procedures, values, etiquette, equipment, and history of golf. This course is designed for all students interested in playing golf as part of a fitness lifestyle or kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

166B Golf II**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 166A with a grade of “C” or better, or equivalent.

This course provides golf instruction and practice. Emphasis is placed on techniques of the full swing with irons, hybrids, fairway metals and drivers. Topics include golf fitness, stretching and the principles of warm-up as well as golf club selection and use. This course is designed for all students interested in playing golf as part of a fitness lifestyle or kinesiology majors. (FT) AA/AS; CSU; UC, for UC

Transfer Limitations see a Counselor or reference ASSIST.org.

166C Golf III

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 166B with a grade of “C” or better, or equivalent.

This course provides golf instruction and practice. Emphasis is placed on specialty shots, such as sand, side hill and up and down hill lies. The fundamental errors in golf are analyzed to correct individual errors focusing on swing techniques and the mental approach to the game. Topics include the laws of ball flight, the swing plane, and wise use of practice time. This course is designed for all students interested in playing golf as part of a fitness lifestyle and kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

166D Golf IV

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 166C with a grade of “C” or better, or equivalent.

This course provides golf instruction and practice. Emphasis is placed on playing strategies, analysis of golf rounds for strengths and weaknesses, student analysis of several different golf swings, and the handicap system. Stroke and Match plays are arranged between class members to develop playing strategies in competition. This course is designed for all students interested in playing golf as part of a fitness lifestyle and kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

174A Soccer I

**1.5 – 3 hours lab, 0.5 – 1 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 149 or Physical Education 149W.

This course provides instruction in basic soccer skill technique, strategies, etiquette and rules necessary to play soccer at the novice level. Topics include basic dribbling, heading and collection with the soccer ball. Students also define, apply and interpret the basic rules and safety procedures within the game of soccer. This class is designed for students interested in an active lifestyle as well as for Kinesiology majors. (FT) AA/AS; CSU; UC, for UC

Transfer Limitations see a Counselor or reference ASSIST.org.

174B Soccer II

**1.5 – 3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 174A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 149X.

This course provides instruction in soccer technique, tactics, and physical skills necessary to play soccer at the beginning level. Topics include dribbling skills including scissors and Matthews moves, passing techniques and turning while collecting a soccer ball. Students also define and apply methods of scoring, set pieces and principles of team defense within the game of soccer. This class is designed for students interested in an active lifestyle as well as Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

174C Soccer III

**1.5 – 3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 174B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 149Y.

This course provides instruction in individual soccer techniques, tactics, and physical skills necessary to play soccer at the intermediate level. Topics include shooting from both close and far distances, lofted passing techniques and offensive heading of the soccer ball. Students also define, apply and interpret methods of creating space, both offensively and defensively as an individual player. This class is designed for students interested in an active lifestyle as well as Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

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Milestone formerly referred to as Skill Level

174D Soccer IV**1.5 – 3 hours lab, 0.5 – 1 units
Grade Only**

Advisory: Exercise Science 174C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 149Z.

This course provides instruction in team soccer techniques, tactics, physical skills, etiquette, and rules necessary to play soccer at the advanced level. Topics include building the offensive through the back, playing through the midfield and attacking from the central and flank positions. Students also define and apply methods of zonal defending and defending various systems of play as a team. This class is designed for students interested in an active lifestyle as well as Kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

176A Softball I**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 151.

This course is the first in a series of four softball courses. This course provides instruction to develop the fundamental skills of throwing, catching, running, hitting, and rules of play of softball as well as individual and team skill development and strategies involved in competitive game situations. This course is intended for all students interested in softball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

176B Softball II**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 176A with a grade of “C” or better, or equivalent.

This course is the second in a series of four softball courses. This course provides instruction to continue the development of the beginning skills of throwing, catching, running, hitting, and rules of play of softball as well as individual and team skill development and strategies involved in competitive game situations. This course is intended for all students interested in softball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

176C Softball III**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 176B with a grade of “C” or better, or equivalent.

This course is the third in a series of four softball courses. This course provides instruction to develop the intermediate skills of throwing, catching, running, hitting, and rules of play of softball, as well as, individual and team skill development and strategies involved in competitive game situations. This course is intended for all students interested in softball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

176D Softball IV**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 176C with a grade of “C” or better, or equivalent.

This course is the fourth in a series of four softball courses. This course provides instruction to develop the advanced skills of throwing, catching, running, hitting and rules of play of softball, as well as, advanced individual and team skill development and strategies involved in competitive game situations. This course is intended for all students interested in softball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

178A Tennis I**2 - 3 hours lab, 0.5-1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 159 and Physical Education 159W.

This course is the first in a series of four courses in tennis. Emphasis is placed on introductory level skills, strokes, strategies, rules and etiquette. This course is intended for kinesiology majors and all students interested in incorporating the game of tennis into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

178B Tennis II**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 178A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 159X.

This course is the second in a series of four courses in tennis. Emphasis is placed on beginning level skills, strokes, strategies, rules and etiquette as they relate to tournament play. This course is intended for kinesiology majors and all students interested in incorporating the game of tennis into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

178C Tennis III

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 178B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 159Y.

This course is the third in a series of four courses in tennis. Emphasis is placed on intermediate level skills, strokes, strategies, rules and etiquette as they relate to league and tournament play. This course is intended for kinesiology majors and all students interested in incorporating the game of tennis into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

178D Tennis IV

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 178C with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 159Z.

This course is the fourth in a series of four courses in tennis. Emphasis is placed on advanced skills, strokes, strategies, rules and etiquette as they relate to singles and doubles tournament play. This course is intended for kinesiology majors and all students interested in incorporating the game of tennis into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

179A Pickleball I

**3 hours lab, 0.5 – 1 unit
Grade Only**

This course is an introduction to the sport of pickleball. Emphasis is placed on the fundamental pickleball techniques, rules and etiquette needed to play pickleball with no prior experience. When the course is offered for three hours per week, the

additional time is utilized for stroke development and application of strategies in playing situations. This course is designed for kinesiology majors and all students interested in the sport of pickleball. AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

179B Pickleball II

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 179A with a grade of “C” or better, or equivalent.

This course provides instruction and on-court experience in the skills, strategies, rules and etiquette necessary to play pickleball at a beginner level, including both singles and doubles. No prior experience is required, although a background in other racquet sports such as tennis, racquetball or badminton is helpful. When the course is offered for three hours per week, the additional time is utilized for stroke development and application of strategies in playing situations. This course is designed for kinesiology majors and all students interested in the sport of pickleball. AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

179C Pickleball III

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 179B with a grade of “C” or better, or equivalent.

This course provides instruction and on-court experience in the skills strategies, rules and etiquette necessary to play pickleball at an intermediate level, including both singles and doubles. Completion of Pickleball I or II is not required, but recommended. A background in other racquet sports such as tennis, racquetball or badminton is helpful. When the course is offered for three hours per week, the additional time utilized for stroke development and application of strategies in playing situations. AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

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179D Pickleball IV**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 179C with a grade of “C” or better, or equivalent.

This course provides instruction and on-court experience in the skills, strategies, rules and etiquette necessary to play pickleball at an advanced level, including both singles and doubles. Completion of Pickleball 3 is highly recommended. A background in other racquet sports such as tennis, racquetball or badminton is helpful. When the course is offered for three hours per week, the additional time is utilized for stroke development and application of strategies in playing situations, including tournaments. This course is designed for kinesiology majors and all students interested in the sport of pickleball. AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

180A Track and Field I**1.5 hours lab, 0.5-1 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 160 or Exercise Science 180. This course is designed as an introduction to the fundamentals of track and field. Emphasis is placed on safety, form and techniques related to throwing, jumping and running events. This course is intended for anyone interested in track and field or Kinesiology Majors. (FT) AA/AS; CSU; UC

180B Track and Field II**1.5 hours lab, 0.5-1 units
Grade Only**

Advisory: Exercise Science 180A with a grade of “C” or better, or equivalent. This course provides instruction and practice in advanced beginner skills and techniques of all track and field events. Emphasis is placed on creating a conditioning program involving event-specific running and event technique and drills. This course is intended for anyone interested in track and field or those majoring in kinesiology. (FT) AA/AS; CSU; UC.

180C Track and Field III**1.5 hours lab, 0.5-1 units
Grade Only**

Advisory: Exercise Science 180B with a grade of “C” or better, or equivalent. This course provides instruction and practice in intermediate skills and techniques of all track and field events. Emphasis is

placed on creating a conditioning program involving event-specific running and event technique and drills. This course is intended for anyone interested in track and field or those majoring in kinesiology. (FT) AA/AS; CSU; UC.

180D Track and Field IV**1..5 hours lab, 0.5-1 units
Grade Only**

Advisory: Exercise Science 180C with a grade of “C” or better, or equivalent. This course provides instruction and practice in advanced skills and techniques of all track and field events. Emphasis is placed on creating a conditioning program involving event-specific running and event technique and drills. This course is intended for anyone interested in track and field or those majoring in kinesiology. (FT) AA/AS; CSU; UC.

182A Volleyball I**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 161.

This course is the first of four courses in volleyball. Emphasis is placed on introductory level skills, basic rules, strategies and etiquette. This course is intended for Kinesiology majors and all students interested in incorporating the sport of volleyball into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

182B Volleyball II**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 182A with a grade of “C” or better, or equivalent.

The course is the second of four courses in volleyball. Emphasis is placed on beginning level skills and offensive and defensive systems as they relate to team play. This course is intended for Kinesiology majors and all students interested in incorporating the sport of volleyball into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

182C Volleyball III**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 182B with a grade of “C” or better, or equivalent.

This course is the third of four courses in volleyball. Emphasis is placed on intermediate level individual offensive and defensive skills. Topics include offensive team systems and options, and defensive theory and team systems as they relate to league play. This course is intended for Kinesiology majors and all students interested in incorporating the sport of volleyball into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

182D Volleyball IV

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 182C with a grade of “C” or better, or equivalent.

This course is the fourth of four courses in volleyball. Emphasis is placed on advanced level individual offensive and defensive skills. Topics include diversified offensive and defensive team systems as they relate to intercollegiate and international level volleyball. This course is intended for Kinesiology majors and all students interested in incorporating the sport of volleyball into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

183A Beach Volleyball I

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

This course is the first of four courses in beach volleyball. Emphasis is placed on volleyball terminology, introductory level skills, improvement of cardiovascular/aerobic fitness, basic rules, safety procedures, strategies and etiquette. This course is intended for kinesiology majors and all students interested in incorporating the sport of beach volleyball into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

183B Beach Volleyball II

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 183A with a grade of “C” or better, or equivalent.

This course is the second of four courses in beach volleyball. Emphasis is placed on beginning level skills and offensive and defensive systems as they relate to team play. This course is intended for Kinesiology majors and all students interested in incorporating the sport of volleyball into an

active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

183C Beach Volleyball III

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 183B with a grade of “C” or better, or equivalent.

This is the third of four courses in beach volleyball. Topics include intermediate skill development, introduction to plyometric training, team strategies on offense and defense. This course is intended for kinesiology majors and all students interested in incorporating the sport of beach volleyball into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

183D Beach Volleyball IV

**1.5 – 3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 183C with a grade of “C” or better, or equivalent.

This is the fourth of four courses in beach volleyball. Topics include advanced skill development, introduction to plyometric training, team strategies on offense and defense. This course is intended for kinesiology majors and all students interested in incorporating the sport of beach volleyball into an active lifestyle. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

270 Exercise Science Internship / Work Experience

**54 - 216 hours other, 1-4 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 270.

This course provides on-the-job learning experience for students employed in an exercise science-related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation, and achievement of job-related behavioral learning objectives. One unit of credit may be earned for

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every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring in exercise science or those interested in the fitness, health, and wellness industry. This includes but is not limited to the fields of personal training, physical therapy, strength and conditioning, health and wellness coaching, and yoga teaching. (FT) AA/AS; CSU.

280 Applied Exercise Physiology
2 hours lecture, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 280.

This course is an introduction to how the body functions under conditions of exercise stress and how fitness behaviors affect health and wellness. Emphasis is placed on muscular, cardiorespiratory, and other physiological processes that occur as a result of exercise conditioning, as well as their effects on disease risk. This course is intended for students seeking certification as personal trainers. (FT) AA/AS; CSU.

281 Applied Kinesiology
2 hours lecture, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 281.

This course is a study of movement as it relates to exercise under both normal and injury conditions. Students learn the practical implications of exercise on bones, joints, nerves, and muscles. Emphasis is placed on applying body alignment, range of motion, stabilization, and acceleration principles to the development of exercise programs. This course is intended for students seeking certification as personal trainers. (FT) AA/AS; CSU.

282 Techniques of Weight Training
2 hours lecture, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 282.

This course is an introduction to teaching techniques in weight training. Topics include anatomy, physiology, training sequences, equipment options, safety factors, and contraindications. This course

is intended for students seeking certification as personal trainers. (FT) AA/AS; CSU.

283 Exercise and Fitness Assessment
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 283.

This course prepares students to assess and evaluate exercise and fitness parameters. Topics include the measurement and evaluation of cardiorespiratory endurance; muscular strength and endurance; flexibility; body fat; pulmonary function; and blood pressure. Emphasis is placed on determining the appropriate test, conducting the test, interpreting the results, and creating an exercise program. This course is intended for students seeking certification as personal trainers. (FT) AA/AS; CSU.

285 Exercise for Special Populations
2 hours lecture, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 285.

This course presents exercise implications for special populations related to age, medical condition, and level of fitness. Emphasis is placed on cardiac conditions; diabetes; obesity; physical disabilities; Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS); asthma; and sensory impairments. Issues and barriers to exercise are included for each of the following groups: seniors; children; athletes; the mentally impaired; and pregnant and postpartum women. This course is intended for students seeking certification as personal trainers. (FT) AA/AS; CSU.

286 Techniques of Exercise Leadership
1.75 hours lecture, .75 hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 286.

This course provides students with the principles and techniques involved in developing a personal trainer/client relationship. Emphasis is placed on client assessment, communication skills, program design, exercise adherence, teaching strategies, and professional responsibility and liability. This course is intended for students seeking certification as personal trainers. (FT) AA/AS; CSU.

288 Personal Training Professional Preparation

**1 hour lecture, 1 unit
Grade Only**

Advisory: Concurrent enrollment in Exercise Science 270 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 287, Physical Education 288 or Exercise Science 287. This course is designed to provide students in the Personal Trainer Certificate Program with practical experience in the field of exercise and fitness. Emphasis is placed on participant screening, evaluation, and exercise program design; self-marketing; trainer/client relationships; and professional responsibility in a fitness setting. (FT) AA/AS; CSU.

290 Independent Study

**3–9 hours other, 1–3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Obtain Permission Number from Instructor. This course is not open to students with previous credit for Physical Education 290.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of exercise science. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

Intercollegiate Athletics

136A Off-Season Conditioning for Sport I

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 191 or Physical Education 165.

This course is designed to enhance the physical and mental skills needed to participate in intercollegiate sports activities. Emphasis is placed on weight training, running, skill development games, and individual development for sport. When this course is offered for one unit the additional time is utilized in the practice and perfection of individual sport-specific skills. This course is intended for intercollegiate athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

136B Off-Season Conditioning for Sport II

**2–3 hours lab, 0.5 – 1 unit
Grade Only**

Advisory: Exercise Science 136A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 165 or Physical Education 191.

This course provides intercollegiate athletes with individually programmed coaching in the fundamental skills of sports-specific training and aerobic conditioning. Through progressive inquiry and practice, students demonstrate more advanced levels of athletic performance. When this course is offered for one unit the additional time is utilized in the development and implementation of sport-specific exercise programs. This course is intended for intercollegiate athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

200 Intercollegiate Badminton I

**96–175 hours lab, 2-3.5 units
Grade Only**

Advisory: Exercise Science 154A with a grade of "C" or better, or equivalent or previous competitive badminton experience.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 200.

This is a course for students competing in their first intercollegiate badminton season. The course is offered in the spring semester and may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

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201 Intercollegiate Badminton II**96–175 hours lab, 2-3.5 units
Grade Only**

Advisory: Exercise Science 200 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 201.

This is a course for students competing in their second intercollegiate badminton season. The course is offered in the spring semester and may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

202 Intercollegiate Baseball I**96–175 hours lab, 2-3.5 units
Grade Only**

Advisory: Exercise Science 230A with a grade of “C” or better, or equivalent Theories and Strategies of Baseball I.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 202.

This course is intended for the first season of intercollegiate competition. Baseball skills and game strategies are at a more advanced level of participation than those of an introductory course in baseball. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

203 Intercollegiate Baseball II**96–175 hours lab, 2-3.5 units
Grade Only**

Advisory: Exercise Science 230B with a grade of “C” or better, or equivalent Theories and Strategies of Baseball II.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 203.

This course is intended for the second season of intercollegiate competition. Baseball skills and game strategies are at the advanced levels of participation. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

204 Intercollegiate Basketball I**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 204.

This course is intended for the first season of intercollegiate competition. Basketball skills and game strategies are at a more advanced level of participation than those of an introductory course in basketball. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

205 Intercollegiate Basketball II**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 205.

This course is intended for the second season of intercollegiate competition. Basketball skills and game strategies are at the advanced levels of participation. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

206 Intercollegiate Cross-Country I**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 206.

This course is for students participating in their first season of intercollegiate cross-country competition. This course may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

207 Intercollegiate Cross Country II**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 207.

This course is for students participating in their second season of intercollegiate cross-country competition. This course may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition.

(FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

214 Intercollegiate Soccer I

**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 214.

This is a course in which students competing in their first intercollegiate soccer season learn and practice the techniques and strategies necessary for successful participation. The topics covered are fundamental through advanced skills as well as offensive and defensive strategies. This course is offered separately for men and women in the fall semester. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

215 Intercollegiate Soccer II

**96–175 hours lab, 2 – 3.5 units
Grade Only**

Advisory: Concurrent enrollment in Exercise Science 234B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 215.

This is a course in which students competing in their second intercollegiate soccer season of competition learn and practice the techniques and strategies necessary for successful participation. Those topics covered are fundamental through advanced soccer skills and both offensive and defensive strategies. This course is offered separately for both men and women in the Fall semester. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

216 Intercollegiate Softball I

**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: A physician’s medical release form is required. This course is not open to students with previous credit for Physical Education 216.

This course is designed for students competing in their first intercollegiate softball season. Students will learn and practice the techniques and strategies necessary for successful participation. Those topics covered are fundamental through advanced softball skills and offensive and defensive strategies.

Students must demonstrate increased softball skill proficiency and skill attainment with each repetition. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

217 Intercollegiate Softball II

**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: A physician’s medical release form is required. This course is not open to students with previous credit for Physical Education 217.

This course is designed for students competing in their second intercollegiate softball season. Students will learn and practice the techniques and strategies necessary for successful participation. Those topics covered are fundamental through advanced softball skills and offensive and defensive strategies. Students must demonstrate increased softball skill proficiency and skill attainment with each repetition. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

220 Intercollegiate Tennis I

**96–175 hours lab, 2-3.5 units
Grade Only**

Advisory: Exercise Science 178D with a grade of “C” or better, or equivalent or previous competitive tennis experience.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 220.

This is a course for students competing in their first intercollegiate tennis season. This course is offered in the spring semester for men and women and may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

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221 Intercollegiate Tennis II**96–175 hours lab, 2-3.5 units
Grade Only**

Advisory: Exercise Science 220 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 221.

This is a course for students competing in their second intercollegiate tennis season. This course is offered in the spring semester for men and women and may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

222 Intercollegiate Track and Field I**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 222.

This course is for students competing in their first season of intercollegiate track and field. This course may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

223 Intercollegiate Track and Field II**96–175 hours lab, 2 – 3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 223.

This course is for students competing in their second season of intercollegiate track and field. This course may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

224 Intercollegiate Volleyball I**96–175 hours lab, 2-3.5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 224.

This is the first course in intercollegiate volleyball competition. Topics include analyses of team

offensive and defensive systems. This course is designed to prepare advanced volleyball students for intercollegiate competition. This course is offered in the fall and spring semester and may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

225 Intercollegiate Volleyball II**96–175 hours lab, 2-3.5 units
Grade Only**

Advisory: Exercise Science 224 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 225.

This is the second course in intercollegiate volleyball competition. This course is offered in the fall and spring semester and may be taken two times for credit. Students must demonstrate increased proficiency and skill attainment with each repetition. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

228A Intercollegiate Sand Volleyball I**96–175 hours lab, 2 – 3.5 units
Grade Only**

This is the first course in intercollegiate sand volleyball competition. Topics include analyses of individual and team strategies. This course is designed for students interested in competing in sand volleyball at a collegiate-level. Students must pass the sports physical administered by the team physician prior to competition. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

228B Intercollegiate Sand Volleyball II**96–175 hours lab, 2 – 3.5 units
Grade Only**

Advisory: Exercise Science 228A with a grade of “C” or better, or equivalent.

This is the second course in intercollegiate sand volleyball competition. Topics include analyses of individual and team strategies. This course is designed for students interested in competing in sand volleyball at a collegiate-level. Students must pass the sports physical administered by the team physician prior to competition. This course may be taken two times for credit. (FT) AA/AS; CSU; UC, for

UC Transfer Limitations see a Counselor or reference ASSIST.org.

Exercise Science Theory Classes

229A Theories and Strategies of Badminton I 1.5 hours lecture, 1.5 hours lab, 2 units Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 249A.

This is the first in a series of two courses that explore the theories and strategies of badminton. Emphasis is placed on the theoretical concepts necessary for successful participation in intercollegiate badminton. Topics include mechanical analysis of fundamentals through advanced badminton skills, offensive/defensive strategies, statistics, rules, and officiating. This course is designed for first year intercollegiate badminton student athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

229B Theories and Strategies of Badminton II 1.5 hours lecture, 1.5 hours lab, 2 units Grade Only

Advisory: Exercise Science 229A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 249B.

This is the second in a series of two courses that explores the theories and strategies of badminton. Emphasis is placed on advanced theoretical concepts for successful participation in intercollegiate badminton. Topics include mechanical analysis of advanced badminton strokes and placement of shots, advanced movement, performance factors, and options for continuing badminton participation post community college. This course is designed second year intercollegiate badminton student athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

230A Theories and Strategies of Baseball I 1.5 hours lecture, 1.5 hours lab, 2 units Grade Only

Advisory: Concurrent enrollment in Exercise Science 202 or Exercise Science 203, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 252A.

This course provides instruction to develop the fundamental skills of throwing, catching, running, hitting, and the rules of NCAA baseball as well as strategies used during game competition. Sport specific speed and strength development is emphasized. This course is intended for intercollegiate baseball players only. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

230B Theories and Strategies of Baseball II 1.5 hours lecture, 1.5 hours lab, 2 units Grade Only

Advisory: Exercise Science 230A with a grade of “C” or better, or equivalent.

Advisory: Concurrent enrollment in Exercise Science 202 or Exercise Science 203, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 252B.

This is the second course in Theories and Strategies of Baseball. Course emphasis is on advanced skills, strategy, tactics, rules officiating, and organizational procedures in baseball. This course is intended for intercollegiate baseball players. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

231A Theories and Strategies of Basketball I 1.5 hours lecture, 1.5 hours lab, 2 units Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 251A.

This course covers the theoretical concepts necessary for students to compete successfully in their first intercollegiate basketball season. Topics include rules, game strategies, history, and game preparation. The physiological requirements for the intercollegiate athlete and importance of nutritional components for optimal performance are emphasized. Separate sections of this course are

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AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

offered for men and women. The course is intended for intercollegiate athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

231B Theories and Strategies of Basketball II
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Exercise Science 231A with a grade of “C” or better, or equivalent.

Advisory: Concurrent enrollment in Exercise Science 205 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 251B.

This course covers advanced theoretical concepts and techniques for intercollegiate basketball competition. Topics include advanced team strategies, efficient basketball conditioning techniques, goals for game preparation, and leadership qualities for basketball. Concepts of team building and social skills necessary for success at the intercollegiate level are also emphasized. Separate sections of this course are offered for men and women. The course is intended for intercollegiate athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

232A Professional Activities/Cross Country I
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Completion of or concurrent enrollment in Exercise Science 206 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 258A.

This course introduces students to the development of skills for cross country running as well as biomechanics, exercise physiology, workout design, scouting, and procedures for administering a college cross country meet. The course is designed for students who are participating in this sport and for those who may be interested in coaching cross country teams. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

232B Professional Activities/Cross Country II
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Completion of or concurrent enrollment in Exercise Science 207 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 258B.

This course covers the development of advanced skills in cross country running, including techniques of biomechanics, exercise physiology, workout design, and scouting. Emphasis is placed on procedures for administering college cross country meets and coaching techniques. This course is designed for second-year students who are participating in this sport and for those who are interested in coaching cross-country teams. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

234A Theories and Strategies of Soccer I
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 257A.

This course covers the theoretical concepts necessary for students to compete successfully in their first intercollegiate soccer season. Topics include mechanical analysis of fundamental through advanced soccer skills, offensive and defensive strategies, statistics, rules, and officiating. Separate sections of this course are offered for men’s soccer and women’s soccer. The course is intended for intercollegiate athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

234B Theories and Strategies of Soccer II
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 257B.

This course covers advanced theoretical concepts and techniques for intercollegiate soccer competition. Topics include advanced team strategies, efficient conditioning techniques, goals for game preparation, and leadership qualities. Concepts for team building and social skills necessary for success at the intercollegiate level are emphasized. Separate sections of this course are offered for men’s soccer and women’s soccer. The course is intended for intercollegiate athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

235A Theories and Strategies of Softball I
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Concurrent enrollment in Exercise Science 216 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 253A.

This course explores a variety of softball strategies and techniques focusing on the development of offensive and defensive strategies, rules, officiating, video review, and mechanical analysis of fundamentals through advanced softball skills. The course is open to students interested in participating in intercollegiate softball or kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

235B Theories and Strategies of Softball II
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Concurrent enrollment in Exercise Science 217 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 253B.

This course develops both mental and physical competency with emphasis on advanced skill, mechanics, rules, offensive and defensive strategies, officiating, facilities, video review, organizational procedures and physiological aspects of the game as they relate to college softball. The course is open to students interested intercollegiate softball and kinesiology majors. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

236A Theories and Strategies of Beach Volleyball I
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Completion of or concurrent enrollment in Exercise Science 228A with a grade of “C” or better, or equivalent.

This course covers theoretical concepts necessary for successful participation in beach volleyball. Topics covered include mechanical analysis of fundamentals through advanced beach volleyball skills, offensive/defensive strategies, court etiquette, rules and officiating. This course is designed for students competing on the intercollegiate beach volleyball team and those interested in the sport of

beach volleyball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

236B Theories and Strategies of Beach Volleyball II
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Completion of or concurrent enrollment in Exercise Science 228B with a grade of “C” or better, or equivalent.

This course covers advanced theoretical concepts necessary for successful participation in beach volleyball. Topics include advanced team strategies, efficient beach volleyball conditioning techniques, goals for game preparation, and leadership qualities for beach volleyball. Concepts of team building and social skills necessary for success at the intercollegiate level are also emphasized. This course is designed for students competing on the intercollegiate beach volleyball team and those interested in the sport of beach volleyball. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

237A Theories and Strategies of Tennis I
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 248A.

This is the first in a series of two courses that explore the theories and strategies of tennis. Emphasis is placed on the theoretical concepts necessary for successful participation in intercollegiate tennis. Topics include the match format and rules of community college tennis, mechanical analysis of fundamental through advanced tennis skills, offensive and defensive tactics and strategies, statistics, and etiquette. This course is designed for first year intercollegiate tennis student athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

(FT) = A field trip may be required for this course.
 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

237B Theories and Strategies of Tennis II
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Concurrent enrollment in Exercise Science 237A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 248B.

This is the second in a series of courses that explore the theories and strategies of tennis. Emphasis is placed on the advanced theoretical concepts and practical skills necessary for successful participation in Intercollegiate Tennis. Topics covered include mechanical analysis of advanced tennis skills, advanced ball control, advanced offensive and defensive strategies and tactics, rules, etiquette and statistics. This course is designed for second year intercollegiate tennis student athletes. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

239A Theories and Strategies of Intercollegiate Volleyball I
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Concurrent enrollment in Exercise Science 224 or Exercise Science 225.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 255A.

This is a course in which students competing in their first intercollegiate volleyball season learn the theoretical concepts necessary for successful participation. Topics covered include mechanical analysis of fundamentals through advanced volleyball skills, offensive/defensive strategies, statistics, rules, and officiating. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

239B Theories and Strategies of Intercollegiate Volleyball II
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: Exercise Science 239A with a grade of “C” or better, or equivalent.

Advisory: Concurrent enrollment in Exercise Science 225 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 255B.

This is a course in which students competing in their second intercollegiate volleyball season learn

the theoretical concepts necessary for successful participation. Topics covered include officiating, statistics, concepts for team building, goals for game preparation, leadership, and social skills for success at the intercollegiate level. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

240 Physical Education in the Elementary Schools
2.5 hours lecture, 1.5 hours lab, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 240.

This course includes a brief study of the growth, development, and characteristics of the elementary school child. The elements of written lesson plans, units, evaluations, and various forms of testing are covered. The teaching of fundamental skills, rhythms, dance, and games based on sound physiological principles for this age group is emphasized. The positive impact of physical education on health and wellness, in addition to, academic achievement is explored. Students gain knowledge and understanding of the physiological and sociological effects of alcohol, narcotics, drugs, and tobacco and of ways to identify, refer, and support students and their families who may be at risk of physical, psychological, emotional, or social health problems. Actual teaching situations are experienced in the lab sessions. This course is designed to fulfill lower division preparation for the kinesiology major or for students interested in elementary education. (FT) AA/AS; CSU.

241B Introduction to Kinesiology
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 241B.

This introductory course covers the professional career options, history, basic philosophy, and principles of kinesiology. Other topics include current and emerging issues in foods and nutrition. This course is intended for Kinesiology majors or anyone exploring opportunities in the fields of health, wellness, physical activity, nutrition, or sport. (FT) AA/AS; CSU; UC; C-ID KIN 100.

242B Care and Prevention of Injuries
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 242, 242B or Exercise Science 289.

This course covers the theory and practice of emergency field care and basic athletic first aid. Topics include prevention and care of common athletic injuries, bandaging and/or taping techniques. This course is designed for students interested in athletic training, coaching of sports and majoring in Physical Education, Kinesiology and Exercise Science. (FT) AA/AS; CSU; UC.

284 Fitness and Sports Nutrition
32 - 36 hours lecture, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Physical Education 284.

This course covers the basic principles of nutrition and the ramifications on sports activities. Topics include general nutrition, nutritional considerations for optimal sports performance, and weight control. This course is intended for students seeking certification as personal trainers. (FT) AA/AS; CSU.

294 Health and Wellness Coaching
3 hours lecture, 3 units
Grade Only

This course provides students with the theoretical knowledge and practical skills required to be a health and wellness coach. Emphasis is placed on effective coach-to-client communication techniques as well as the fundamentals of the behavioral, nutritional, and physiological sciences as they relate to health and wellness coaching. Topics include screening and assessment, guidelines for designing and implementing safe, effective, progressive purposeful exercise programs, legal, professional ethics responsibility and liability, and roles of the health/wellness coach. This course is intended for students who are interested in health and wellness in addition to students who are preparing for the American Council on Exercise's (ACE) national examination for Health Coach Certification. To be eligible to take the certification exam, students must have passed a personal training or group exercise certification from the National Commission for Certifying Agencies (NCCA), which include the American Council of Exercise (ACE), American College of Sports Medicine (ACSM), and National

Strength and Conditioning Association (NSCA). (FT) AA/AS; CSU.

392A Special Topics in Sports Theory and Training I
0.5 – 1 hour lecture, 1.5 – 6 hours lab, 1–3 units
Letter Grade or Pass/No Pass Option

This beginning-level course provides students the opportunity to develop theoretical understanding and individual training in a specific sport. Theories, principles, and techniques are taught for a variety of different sports that may vary from term to term. Sports focus areas for each section are listed in the class schedule. (FT) AA/AS; CSU.

392B Special Topics in Sports Theory and Training II
0.5 – 1 hour lecture, 1.5 – 6 hours lab, 1–3 units
Letter Grade or Pass/No Pass Option

Advisory: Exercise Science 392A with a grade of "C" or better, or equivalent.

This intermediate-level course provides students the opportunity to develop additional theoretical understanding and individual training in a specific sport. Theories, principles, and techniques are taught for a variety of different sports that may vary from term to term. Sports focus areas for each section are listed in the class schedule. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Film, Journalism, and Media Production
(FJMP)

100 Introduction to Cinema

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 160 or Radio, Television and Film 160. This course provides an introduction to the medium of cinema as a means of expression and communication. Emphasis is placed on film viewings and analysis, lecture, and discussion. Topics include aesthetic and storytelling techniques, history of the industry, key inventors and artistic contributors, technology, international influences, and current developments. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU; UC.

100 Mass Media in the Digital Age
**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Journalism 202. This course offers a new-media approach to studying mass communication in the United States. It covers emerging technologies, history, structure, social impact, and trends in television, cinema, radio, print, and journalism. Discussion focuses on analysis of the impact of current and emerging media forms on society and culture, as well as on ways that media and social institutions shape each other. Problems and issues are examined in light of social and cultural constructs, economics, technology, law and ethics, and social issues. This course is designed for students pursuing media-related majors and for those seeking employment in the field. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID JOUR 100.

102 Social Media in the Digital Age
**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Journalism 204 or Digital Journalism 204.

This course is a study of social media in contemporary society. Emphasis is placed on creating, communicating, and consuming

information via digital, social, and mobile technologies in an evolving global environment. Topics include the history and impact of social media on countries and cultures, copyright and fair use, privacy and identity protection, and social analytics and reputation management. This course is designed for students in the digital journalism major and anyone interested in social media strategy and management. (FT) AA/AS; CSU.

110 Introduction to Video Editing
**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 153, Film, Journalism, and Media Production 153 or Radio, Television and Film 153. This is a practical study of computer-based film and video editing. Emphasis is placed on the technical and aesthetic principles of post-production video editing for broadcast, short film, and web. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

111 Single Camera Production
**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 124 or Radio, Television and Film 124. This is the first in a series of courses focused on the development, planning, and logistics of single camera video production. Topics include working individually and in groups planning video productions and operating video cameras, audio recorders, and lighting systems. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU; UC.

112 Introduction to Audio Production
2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 107 or Radio, Television and Film 107. This course is a study of the theory and practice of sound and audio techniques for media production. Emphasis is placed on project learning using audio software focusing on sound waveform terms, microphones, signal processors, consoles, and control surfaces. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

120 Introduction to Screenwriting
2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 110 or Radio, Television and Film 110. This course is a study of the theory and practice of writing for film and media production. Emphasis is placed on preparing screenplays in proper formats, including fundamental technical, conceptual, and stylistic issues related to writing fiction and non-fiction scripts. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

121 Fiction Film Production
2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 167 or Radio, Television and Film 167. This is the first in a series of courses focused on the modes and methods of fiction filmmaking. Emphasis is placed on short fiction film production. Topics include designing and executing multiple film projects individually and in groups as they analyze landmark fiction films. Legal and ethical issues in news media, including the implications of social

and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing film degrees and anyone interested in media-related industries. (FT) AA/AS; CSU.

122 Documentary Film Production
2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 112 or Radio, Television and Film 112. This is the first in a series of courses focused on the modes and methods of documentary filmmaking. Emphasis is placed on documentary film production. Topics include designing and executing multiple film projects individually and in groups as they analyze landmark documentary films. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing film degrees and anyone interested in media-related industries. (FT) AA/AS; CSU.

123 The Producer's Role in Film
2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 111 or Radio, Television and Film 111. This course is an introduction to development, planning, and logistics of film production. Emphasis is placed on the creative and business practices required to transform a film screenplay into a finished film. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing film degrees and anyone interested in media-related industries. (FT) AA/AS; CSU.

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 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

124 Video Motion Graphics

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Film, Journalism, and Media Production 156 or Radio, Television and Film 156.

This is a practical study of computer-based film and video motion graphics design. Emphasis is placed on the technical and aesthetic principles of motion graphics and special effects design for broadcast, short film, and web. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

130 Newswriting for Multiplatform Journalism

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 200, Journalism 200, Radio and Television 140 or Radio, Television and Film 140.

This course offers instruction and practice in the fundamentals of newswriting, reporting, and editing for professional media environments. Emphasis is on newsgathering strategies, writing basic news stories, and producing news content on deadline for multiplatform journalism organizations. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

131 Multimedia Journalism Reporting

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: English 101, Journalism 200 or Journalism 210A, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 205, Radio and Television 146, or Radio, Television and Film 146.

This course is a practical study of the basic components involved in using digital and mobile tools to publish news content. Emphasis is placed on using such tools for news reporting and gathering purposes for students to create and manage story packages for multiple media platforms from the standpoint of a working multimedia journalist. Topics include the use of multiple digital elements including text, visuals, audio, interactives, and digital design. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

132 Multiplatform Journalism Production

**9 hours lab, 3 units
Grade Only**

Advisory: English 101 or Journalism 200, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 210.

This course is an introduction to the study of the practice of multiplatform journalism. Emphasis is placed on students gaining practical experience in a newsroom setting using a convergence model in which students collaborate with other student media on campus. Topics include writing, reporting, editing, and producing content for multiplatform news media publications. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

133 Broadcast News Production

**1 hour lecture, 6 hours lab, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 145 or Radio, Television and Film 145.

This course is an introduction to the study of the practice of broadcast news production. Emphasis is placed on students gaining practical experience in a newsroom and television studio using a convergence model in which students collaborate with other student media on campus. Topics include news gathering, writing, researching, camera operation,

and studio production, as well as delivering news programs across platforms. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

134 Multiplatform Magazine Production **2 hours lecture, 3 hours lab, 3 units** **Grade Only**

Advisory: English 101, Film, Journalism, and Media Production 130 or Journalism 200, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 220.

This course introduces students to writing, editing, and producing content for multiplatform magazines. Emphasis is placed on students gaining practical experience in a newsroom setting using a convergence model in which students collaborate with other student media on campus to produce multimedia journalism features and long form writing samples. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

141 Audio Storytelling for Radio and Podcast **2 hours lecture, 3 hours lab, 3 units** **Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 130 or Radio, Television and Film 130. This course is an introduction to audio storytelling production for radio and podcasts. Emphasis is placed on learning audio broadcast skills, including research, writing scripts, conducting interviews, and on-air presentation. Topics include remote and studio sound recording, editing, and mixing student-produced content for radio and podcast platforms. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT) AA/AS; CSU.

142 Radio and Podcast Production **1 hours lecture, 6 hours lab, 3 units** **Grade Only**

This course is an introduction to the study of the practice of radio news and podcast production and operations. Emphasis is placed on students gaining practical experience in a studio setting using a convergence model in which students collaborate with other student media on campus. Topics include operating all aspects of the student-produced radio and podcast platforms, on-air performance skills, scheduling, the programming formula, the clock, station image, format selection, ratings, and research. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

143 On-Camera Performance **2 hours lecture, 3 hours lab, 3 units** **Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 121 or Radio, Television and Film 121. This course is a practical study of all phases of media performance. Emphasis is placed on hosting for news, sports, entertainment, weather, and social media talent. Topics include use of teleprompter, scripts, cue cards, and ad-libbing. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

144 Multi-Camera Studio Operations **2 hours lecture, 3 hours lab, 3 units** **Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 118 or Radio, Television and Film 118.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

This course is a survey of the theory, terminology, and operations of a multi-camera production studio and control room. Emphasis is placed on students gaining hands-on experience in directing. Topics include the operation of audio, camera, video switcher, lighting, graphics, and video. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

145 Art Direction for Film and Media Production

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 126 or Radio, Television and Film 126. This course is a study of the aesthetics and techniques of art direction for film and media production. Emphasis is placed on developing the student's ability to control the look of production sets through the use of design techniques. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

146 Lighting for Film and Media Production

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 128 or Radio, Television and Film 128. This course is a study of the theory and practice of lighting for film and media production. Emphasis is placed on the essence of various kinds of light and how light works. Topics include lighting techniques to create visual moods for various film and media production projects. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

211 Single Camera Production Workshop **2 hours lecture, 3 hours lab, 3 units Letter Grade or Pass/No Pass Option**

Prerequisite: Film, Journalism, and Media Production 111 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Radio, Television and Film 246A.

This is the second in a series of courses focused on the development, planning, and logistics of single camera video production. Topics include supervising video productions and operating video cameras, audio recorders, and lighting systems. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

221 Fiction Film Production Workshop **2 hours lecture, 3 hours lab, 3 units Letter Grade or Pass/No Pass Option**

Prerequisite: Film, Journalism, and Media Production 121 with a grade of "C" or better, or equivalent.

This is the second in a series of courses focused on the modes and methods of fiction filmmaking. Emphasis is placed on short fiction film direction. Topics include designing and executing a single film project individually or with the support of a group and presenting their analysis of landmark fiction films. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing film degrees and anyone interested in media-related industries. (FT); AA/AS; CSU.

222 Documentary Film Production Workshop **2 hours lecture, 3 hours lab, 3 units Letter Grade or Pass/No Pass Option**

Prerequisite: Film, Journalism, and Media Production 122 with a grade of "C" or better, or equivalent.

This is the second in a series of courses focused on the modes and methods of documentary filmmaking. Emphasis is placed on documentary film direction. Topics include designing and executing a single film project individually or with the support of a group and presenting their analysis of landmark documentary films. Legal and ethical issues in news media, including the implications of social and

cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing film degrees and anyone interested in media-related industries. (FT); AA/AS; CSU.

232A Multiplatform Journalism Workshop I
9 hours lab, 3 units
Grade Only

Prerequisite: Film, Journalism, and Media Production 132 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 211.

This course is the first in a series of production workshops in multiplatform journalism. Emphasis is placed on creating content and editing in a newsroom using a convergence model in which students collaborate with other student media on campus to produce a wide range of multimedia journalism samples. Topics include each stage of the multimedia journalism production process, including content development and peer editing. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

233B Broadcast News Workshop II
1 hour lecture, 6 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Film, Journalism, and Media Production 233A with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 249B or Radio, Television and Film 249B. This course is the second in a series of journalism and media production workshops in broadcast news. Emphasis is placed on not only creating content, but managing the production process in a newsroom and television studio using a convergence model in which students collaborate with other student media on campus to produce a wide range of multimedia journalism samples. Topics include producing and directing weekly news programs, evaluating newsworthy stories, and implementing newswriting, interviewing, and video standards. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social

justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

233C Broadcast News Workshop III
1 hour lecture, 6 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Film, Journalism, and Media Production 233B with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 249C or Radio, Television and Film 249C. This course is the third in a series of journalism and media production workshops in broadcast news. Emphasis is placed on not only creating content, but supervising a newsroom and television studio using a convergence model in which students collaborate with other student media on campus to produce a wide range of multimedia journalism samples. Topics include effective leadership in a newsroom and studio, establishing newswriting and video standards, ensuring deadline adherence, maintaining continuity of broadcast quality, and communicating team goals clearly. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

242A Radio and Podcast Workshop I
1 hour lecture, 6 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Film, Journalism, and Media Production 142 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Radio, Television and Film. This course is the first in a series of workshops in radio news and podcast production. Emphasis is placed on creating content and editing in a studio setting using a convergence model in which students collaborate with other student media on campus to produce a wide range of multimedia

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journalism samples. Topics include creating spoken word content for the student radio station and podcast platforms. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

242B Radio and Podcast Workshop II

**1 hour lecture, 6 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Film, Journalism, and Media Production 242A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Radio, Television and Film 247B.

This course is the second in a series of workshops in radio news and podcast production. Emphasis is placed on not only creating content, but managing the production process in studio setting using a convergence model in which students collaborate with other student media on campus to produce a wide range of multimedia journalism samples. Topics include organizing and scheduling all live and recorded elements for on-air presentation, as well as creating spoken word content for the student radio station and podcast platforms. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

242C Radio and Podcast Workshop III

**1 hour lecture, 6 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Film, Journalism, and Media Production 242B with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Radio, Television and Film 247C.

This course is the third in a series of workshops in radio news and podcast production. Emphasis is placed on not only creating content, but supervising in a studio setting using a convergence model in which students collaborate with other student media on campus to produce a wide range of multimedia journalism samples. Topics include supervising audio storytelling productions for

radio and podcast, with an emphasis on editorial oversight, as well as creating spoken word content for the student radio station and podcast platforms. Students gain practical experience in a studio setting using a convergence model in which students collaborate with other student media on campus to produce a wide range of audio storytelling samples. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. This course is designed for students pursuing media-related majors and anyone interested in media-related industries. (FT); AA/AS; CSU.

270 Work Experience

**54 - 216 hours other, 1-4 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number-Work Exp. Coordinator.

This course provides on-the-job learning experience for students employed in a media-related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation, and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring in film, journalism, media production, radio and podcasting, or those interested in the media industry. AA/AS; CSU.

290 Independent Study

**48 - 162 hours other, 1-3 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number from Instructor. This course is not open to students with previous credit for Digital Journalism 290.

This course is for students interested in individualized learning in the film, journalism, and/or media production field. It is not intended to replace an existing course in the discipline. Emphasis is placed on focused research, creating and completing projects, and/or exploring issues related to the film, journalism, and/or media production field. A written contract of specific activities and assignments to be completed are assessed and approved by the instructor. Regular meetings between the student and instructor are required to evaluate progress. (FT); AA/AS; CSU.

French (FREN)

101 First Course in French

5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for French 100. This course is a first semester course in French and is designed to introduce students to the French language and cultures of the French-speaking world. In this interactive course, students use the language by speaking, listening, reading, and writing at the novice level. Basic language structures and vocabulary for communication are examined and explored in French. This course is designed for students majoring in French and all students interested in the French language. (FT); AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

102 Second Course in French

5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: French 101 with a grade of "C" or better, or equivalent or two years of high school French. This course is a second semester course in French and is intended for students interested in further study of the French language and cultures of the French-speaking world. In this interactive course, students use listening, reading, speaking, and writing at a more complex level than in the first course. The students further develop their receptive and productive competencies to the high-novice/ low-intermediate level. Additional language structures and vocabulary for communication are examined and explored in French. This course is designed for students majoring in French and all students interested in the French language. (FT); AA/AS; CSU; UC.

201 Third Course in French

5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: French 102 with a grade of "C" or better, or equivalent or three years of high school French. This is an intermediate course in French. Language structures and vocabulary for communication are examined and explored through speaking, listening, reading and writing at the intermediate level. Students explore in more depth than in previous courses the history and the culture of the French-

speaking world. This course is appropriate for students preparing for a major in French as well as for those who wish to continue their studies of the French language and culture. (FT) AA/AS; CSU; UC.

202 Fourth Course in French

5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: French 201 with a grade of "C" or better, or equivalent or four years of high school French. This is an advanced-intermediate course and is the fourth course in the French language sequence. In this interactive course, language structures and vocabulary for communication are examined and studied through speaking, listening, reading and writing at the high-intermediate level. Students continue to explore the history and the culture of the French-speaking world. Readings of literary and culturally relevant authentic materials are examined in depth. This course is designed for students preparing for a major in French as well as for those who have a strong interest in the French language and culture. (FT) AA/AS; CSU; UC.

210 Conversation and Composition in French I

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: French 102 with a grade of "C" or better, or equivalent or successful completion of three years of high school French.

This course further develops oral comprehension and fluency as well as written communication at a mid-intermediate level in French through culturally relevant materials. Students develop spoken and written vocabulary, dramatize everyday topics of conversation, interpret and describe materials, and compare and contrast the cultures of the French speaking world with U.S. culture both orally and in writing. Writing strategies are emphasized and literature is introduced. This course is intended for students who want to enhance their skills in the French language. (FT) AA/AS; CSU; UC.

(FT) = A field trip may be required for this course.
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Milestone formerly referred to as Skill Level

211 Conversation and Composition French II

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: French 210 with a grade of "C" or better, or equivalent.

This course develops oral comprehension and fluency as well as written proficiency in French at an advanced-intermediate level through reading, analyzing, discussing, and reporting on culturally relevant materials. Students develop oral and reading vocabulary skills, study the cultures of the French-speaking world, and further develop the reading strategies introduced in French 210 through reading literature. This course is intended for students who want to further enhance their skills in the French language. (FT) AA/AS; CSU; UC.

290 Independent Study

3–9 hours other, 1-3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor

This course is designed for intermediate students who wish to work on special projects and to further develop further their skill in communication in French. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research and preparing reports. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Gender Studies (GEND)

101 Introduction to Gender Studies

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

This course is an interdisciplinary study of gender. Emphasis is placed on the theoretical approaches to studying gender. These approaches include examining the impact of race/ethnicity in gender roles, socialization of men and women, and the

role of gender in major institutions (for example, the family, media, and education). This course is designed for developing critical thinking skills in exploring issues of gender through feminist analysis of structures of privilege and oppression. This course will be useful for those considering careers in the social sciences, social work, teaching, counseling, and nursing. (FT) AA/AS; CSU; UC; C-ID SOCI 140.

Geographic Information Systems (GISG)

104 Geographic Information Science and Spatial Reasoning

2.5 hours lecture, 1.5 hours lab, 3 units
Grade Only

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations.
Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to Geographic Information Systems (GIS). Emphasis is placed on the fundamental concepts of GIS. Topics include an overview of cartography, remote sensing, and global positioning systems (GPS) as well as GIS data sources, implementation steps, spatial analysis, and applications in government and business. Students are provided the hands-on experience required to visualize information and identify spatial patterns. This course is designed for all students interested in GIS and for professionals who want to know how to use GIS to better understand and analyze geographic data in their field. (FT) AA/AS; CSU; UC; C-ID GEOG 155.

110 Introduction to Mapping and Geographic Information Systems

2.5 hours lecture, 1.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is a practical study of Geographic Information Systems (GIS). Emphasis is placed on the use of ArcGIS software to map, analyze, and model geographic information relevant to fields such as forestry, economics, cartography, city planning, and health. Topics include map making, GIS data creation and management, and map projections and coordinate systems. This course is designed for students majoring in geographic information

systems and professionals in the field who want to update their skills. (FT) AA/AS; CSU; C-ID GEOG 155.

Geography (GEOG)

101 Physical Geography

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

This course is a spatial study of the Earth's dynamic physical systems and processes. Topics include the natural environment and nature-society interactions with an emphasis on scientific literacy and critical thinking. The course covers classification and analysis of spatial patterns of weather, climate, climate change and the enhanced greenhouse effect, the water cycle, landforms, and the distribution of living organisms. This course also addresses environmental issues in geography and sustainability. The course develops students' spatial analysis skills using maps, Geographic Information Systems (GIS), the Global Positioning System (GPS), and remote sensing imagery. This course is intended for social science majors, sustainability majors, or anyone seeking an understanding of Earth's physical systems and human impacts on the natural environment. (FT) AA/AS; CSU; UC; C-ID GEOG 110.

101L Physical Geography Laboratory

3 hours lab, 1 unit
Grade Only

Corequisite: Completion of or concurrent enrollment in Geography 101 with a grade of "C" or better, or equivalent.

This course requires practical observations and applications of the geographic grid, atlases, and topographic maps, weather and climate, natural vegetation and soils, and landforms. This includes exercises in remote sensing and computer tools for data analysis, including Google Earth and Geographic Information Systems (GIS). This course is designed for students interested in geography, geology, or Earth science. (FT) AA/AS; CSU; UC; C-ID GEOG 111.

102 Cultural Geography

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is an introduction to thematic cultural geography. Emphasis is placed on population, race, language, religion, settlement patterns, political organization, economic activities, industry, and the regional distribution of these elements. This course is for students interested in thematic cultural geography or Social Science majors. (FT) AA/AS; CSU; UC; C-ID GEOG 120.

104 World Regional Geography

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is a survey of the world's major geographical regions, including Europe, North America, Latin America, Africa, Australia, Oceania, and South, East, and Southeast Asia. Emphasis is placed on the historical, environmental, cultural, economic, and technological factors that impact these geographical areas. This course is intended for students majoring in Geography and all students interested in world geography. (FT) AA/AS; CSU; UC; C-ID GEOG 125.

154 Introduction to Urban Geography

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of urban geography. Students apply a multidisciplinary approach to investigate and assess urban issues at various scales. Topics include the origins of the city, globalization, urban planning, social justice, and sustainability. This course is designed for students interested in geography, anthropology, sustainability, public administration, urban planning, architecture, and landscape architecture. (FT) AA/AS; CSU; UC.

290 Independent Study

3–9 hours other, 1–3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

(FT) = A field trip may be required for this course.
 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of geography. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Geology (GEOL)

100 Physical Geology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: Concurrent enrollment in Geology 101 with a grade of "C" or better, or equivalent.

This course is an introduction to the science of the earth, the materials of which it is composed, and the processes that are acting upon it. Topics include plate tectonics and Earth's internal structure; the formation and classification of minerals and rocks; geologic structures; and geologic processes of the earth's surface and subsurface. This course is intended for students with a general interest in the geological sciences as well as those majoring in geology, earth science, or geological engineering. (FT) AA/AS; CSU; UC; C-ID GEOL 100.

101 Physical Geology Laboratory

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Corequisite: Completion of or concurrent enrollment in Geology 100 with a grade of "C" or better, or equivalent.

This laboratory course is a practical study of mineral and rock identification; landforms; topographic/geologic map interpretation; and geologic structures. It is intended for students with a general interest in the geological sciences as well as those majoring in geology, earth science, or geological engineering. (FT) AA/AS; CSU; UC; C-ID GEOL 100L.

104 Earth Science

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is a survey of Earth's major physical systems, including the lithosphere, hydrosphere, atmosphere, and Earth's place in the solar system. Emphasis is placed on a synthesis of pertinent topics in geology, physical geography, oceanography, meteorology, and astronomy. This course is intended for those with a general interest in the Earth sciences. (FT) AA/AS; CSU; UC; C-ID GEOL 120.

111 Dinosaurs, Mass Extinctions, and Earth History

3 hours lecture, 3 hours lab, 4 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent; Geology 100 or Geology 104, each with a grade of "C" or better, or equivalent.

This course covers the principles of historical geology. Topics include the origin and evolution of the Earth and biosphere, dinosaurs, mass extinctions, fossils, plate tectonics, biological evolution, and geologic dating techniques. This course is intended for students with a general interest in geoscience, as well as those majoring in geology, geography, earth science, or geological engineering. (FT) AA/AS; CSU; UC; C-ID GEOL 111.

120 Earth Science Laboratory

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Corequisite: Completion of or concurrent enrollment in Geology 104 with a grade of "C" or better, or equivalent.

This is a laboratory course related to the essentials of Earth Science including the geosphere, atmosphere, hydrosphere and Earth's place in the solar system. This course focuses on the physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather, and climate. This course is designed for teacher education students and anyone with a general interest in Earth Science. (FT) AA/AS; CSU; UC; C-ID GEOL 120L.

130 Field Geology of San Diego County

3 hours lecture, 3 hours lab, 4 units

Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent; Geology 100, 101, 104, 120 or Oceanography 101, each with a grade of "C" or better, or equivalent.

This course explores the geologic history and plate tectonic evolution of San Diego County. Emphasis is placed on the geology of various regions, including the coastal plain, Peninsular Ranges, and Salton Trough. Through lectures, laboratory activities, and field trips, students will gain a deeper understanding of the processes that have shaped these areas. Topics include plate tectonic theory, regional geology, rocks and minerals, map and compass work, geo-spatial data collection, and geologic report writing. This course is intended for those with an interest in field geology. (FT) AA/AS; CSU; UC.

290 Independent Study

3–9 hours other, 1–3 units

Letter Grade or Pass/No Pass Option

Advisory: Geology 100 and Geology 101, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of geology. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

German (GERM)

101 First Course in German

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for German 100.

This entry level course introduces students to the German language and cultures of the German-speaking world. In this interactive course, students learn and use the language by speaking, listening, reading, and writing at the novice level. They also

examine and explore basic German language structures and vocabulary. This course is intended for beginning students who seek basic proficiency in the German language, students who want to take other German courses, and students who want to learn German for their personal enrichment. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

102 Second Course in German

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

Prerequisite: German 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for German 100.

This interactive course is the second in the German language series. Students use increasingly complex German language structures to speak, listen, read, and write in cultural context at the novice-high level. This course is intended for all students interested in gaining proficiency in the German language for academic purposes and/or personal enrichment. (FT) AA/AS; CSU; UC.

201 Third Course in German

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

Prerequisite: German 102 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for German 200.

This interactive course is the third in the German language series. Students use increasingly complex language structures and vocabulary to develop the functional competence required to communicate beyond survival needs and to discuss and express opinions on abstract topics related to the arts, lifestyle, linguistics, and literature at the intermediate level. This course is intended for students majoring in German and anyone interested in gaining proficiency in the German language for academic purposes and /or personal enrichment. (FT) AA/AS; CSU; UC.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

210 German Conversation and Composition I

3 hours lecture, 3 units
Grade Only

Prerequisite: German 201 with a grade of "C" or better, or equivalent.

This course develops oral comprehension, fluency and writing skills at an intermediate level in German through verbal and written communication based on everyday situations, current events and culture. Emphasis is placed on increased vocabulary through class discussions, prepared talks and short compositions in German. This course is intended for students who want to further enhance their skills in German. (FT) AA/AS; CSU; UC.

211 German Conversation and Composition II

3 hours lecture, 3 units
Grade Only

Prerequisite: German 210 with a grade of "C" or better, or equivalent.

This course further develops oral comprehension, fluency and writing skills at an advanced-intermediate level in German through verbal and written communication based on culturally relevant material. Emphasis is placed on increased vocabulary through written and oral dramatizations, descriptions and interpretations of everyday life situations and of German, Swiss-German and Austrian culture. This course is intended for students who want to further enhance their skills in German. (FT) AA/AS; CSU; UC.

290 Independent Study

3 - 9 hours other, 1-3 units
Letter Grade or Pass/No Pass Option

Advisory: Geology 100 and Geology 101, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of geology. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

Health Education (HEAL)

101 Health and Lifestyle

3 hours lecture, 3 units
Grade Only

This course covers aspects of mental, emotional, social, environmental, spiritual, and physical health. Emphasis is placed on knowledge for developing the attitude, understanding, and practice of a preventive lifestyle for healthy living and optimal wellness. Topics include chronic diseases, physical activity, nutrition, weight management, birth control methods, human sexuality, alcohol, tobacco and illicit chemical use, stress, and factors that contribute to wellness and longevity. Experience in personal health assessment and the changing of health behaviors is stressed. This course is intended for all students seeking a healthy lifestyle as well as those pursuing a teaching credential. It satisfies the State of California teaching credential Health Education requirement. (FT) AA/AS; CSU; UC.

103 Introduction to Public Health

3 hours lecture, 3 units
Grade Only

This course introduces the concepts, terminology, and functions of public health professions and institutions. Various public health professions and agencies will be examined, as well as the role of public health professionals within the overall health care system. Public health applications of epidemiology, disease prevention, and health promotion will be analyzed. Infectious diseases, chronic diseases, and mental illness will be addressed with respect to epidemiology, prevention, and promotion. The social determinants of health and their impact on health disparities will be covered with respect to environmental health, global health, and healthcare policy and management. This course is intended for students in the Health and Wellness Coaching Program and for students interested in Public Health. (FT) AA/AS; CSU; UC.

195 Health Education For Teachers

2 hours lecture, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Health Education for Teachers 190.

This course overviews health-related issues and problems in the kindergarten through 12th

grade. Topic areas include behavior modification, stress symptoms and management, physical activity, nutrition, cardiovascular disease, sexually transmitted diseases, illicit substance abuse, alcohol and nicotine use and misuse. This course satisfies the State of California Health Education requirement for the K-12 Teaching Credential. This course is intended for prospective K-12 teachers. (FT) AA/AS; CSU.

290 Independent Study

3–9 hours other, 1–3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of health education. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Health Sciences (HEAN)

93 Residential Services Specialist I

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with credit for Health Sciences 265, Residential Services Specialist I.

This course is a study of the theories and skills needed by persons involved in residential care for the developmentally disabled. Course content emphasizes the history and trends in service provision in the United States. This includes current principles of normalization and assessment procedures as well as an overview of common developmental disabilities. The interdisciplinary team process and basic counseling techniques are included. AA/AS.

94 Residential Services Specialist II

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with credit for Health Sciences 265, Residential Services Specialist II.

This course is a study of the theories, knowledge and practical skills needed by persons involved in residential care for the developmentally disabled. Course content emphasizes hands-on behavior management techniques, health and developmental needs, program planning and implementation, and approaches to developing social adaptation and other life skills. AA/AS.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Heavy Equipment Operator (HEOP)

301A Construction Equipment Operator IA

2 hours lecture, 3 hours lab, 3 units

Grade Only

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course familiarizes apprentices with the heavy equipment operator (HEO) trade. There is an emphasis on safety training relevant to working around equipment and others. Course participation includes opportunities to apply knowledge and develop skills in the operation of track-type equipment including bulldozers, backhoes, paving machines and trenching equipment. Basic project procedures are introduced. (FT) AA/AS.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

301B Construction Equipment Operator IB
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Heavy Equipment Operator 301A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course introduces the apprentice to soils. Basic project procedures are introduced. Course components offer the opportunity to apply knowledge and develop skills in the operation of dump trucks and tractors. Site-preparation, set-up and grade checking skills are also developed. (FT) AA/AS.

302A Construction Equipment Operator IIA
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Heavy Equipment Operator 301B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course provides an overview of earth moving operations including clearing and grubbing, excavation, embankment construction, and backfilling and compaction. Safety training relevant to working with scrapers, bulldozers, front-end loaders and backhoes is emphasized. Students apply knowledge and develop skills in the use of rubber tire type earth moving equipment including scrapers and bulldozers. Project procedures and related math concepts are introduced and reinforced. (FT) AA/AS.

302B Construction Equipment Operator IIB
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Heavy Equipment Operator 302A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course builds on the apprentice's basic knowledge of earth moving operations. Students apply knowledge and develop skills in the operation of rubber tire type earth moving equipment including front-end loaders and backhoes. Safety training relevant to working around equipment and other workers is reinforced. Soil characteristics and standards for working with soils and aggregates are introduced. Students learn to follow contract plans and properly grade a construction site. Project procedures and related math concepts are introduced and reinforced. (FT) AA/AS.

303A Construction Equipment Operator IIIA
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Heavy Equipment Operator 302B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course reinforces and further develops basic project procedures. Students apply knowledge and develop skills necessary to leadership role of the finish operator and the operation of telescoping excavators. Advanced safety training relevant to working around equipment and other workers is emphasized. Relevant math concepts and safety procedures are developed. (FT) AA/AS.

303B Construction Equipment Operator IIIB
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Heavy Equipment Operator 303A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course reinforces and further develops the student's understanding of basic project procedures. Crusher operations and grade setting and checking skills are developed. Safety training relevant to working around equipment and other workers is emphasized. Relevant math content and topics related to soil such as backfilling, stabilization, erosion, geotextiles, and moisture and density tests are developed. (FT) AA/AS.

History (HIST)

100 World History I

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course examines the growth of civilizations and the interrelationships of peoples of Europe, Asia, Africa, and the Americas from the birth of civilization to the eve of the Modern Period. Topics in social, intellectual, economic, and political history are covered. This course is intended for history majors and all students interested in a global historical perspective. (FT) AA/AS; CSU; UC.

101 World History II**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course examines the comparative history of the world’s civilizations in Africa, the Americas, Asia, and Europe from the dawn of the Modern Period (1600) to the present. Topics in social, intellectual, economic, and political history are covered. This course is intended for history majors as well as anyone seeking a global historical perspective. (FT) AA/AS; CSU; UC; C-ID HIST 160.

105 Introduction to Western Civilization I**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an historical survey of Western Civilization from the early human communities through the early modern period. The course is designed to introduce students to the ideas, attitudes, and institutions basic to Western Civilization through primary and secondary source material. This course is intended for students majoring in history as well as any student seeking a broad historical perspective. (FT) AA/AS; CSU; UC; C-ID HIST 170.

106 Introduction to Western Civilization II**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a historical survey of Western Civilization from early modernism to the present. Students are introduced to the ideas, attitudes, and institutions basic to Western Civilization. Topics include the political structures, social structures, forms of cultural expression, and patterns of change during key periods of Western history. This course is intended for history majors as well as any student seeking a broad historical perspective. (FT) AA/AS; CSU; UC; C-ID HIST 180.

109 History of the United States I**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course, which covers the history of the United States from its colonial origins through the period of

Reconstruction, provides an overview of the diverse peoples who interacted, settled, and influenced the history of the nation and its developing economic, social, and political institutions. Concentrating on class, ethnicity/race, and gender, students are required to analyze a variety of primary and secondary sources, think critically, and write thesis-based essays. This course is intended for all students interested in United States history. (FT) AA/AS; CSU; UC.

110 History of the United States II**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course, which covers the history of the United States from Reconstruction to the present, provides an overview of the diverse peoples who influenced the history of the nation and its maturing economic, social, and political institutions. Concentrating on class, ethnicity/race, and gender, students are required to analyze a variety of primary and secondary sources, think critically, and write thesis-based essays. This course is intended for all students interested in United States history. (FT) AA/AS; CSU; UC.

115A History of the Americas I**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a history of the Americas from 1500 through 1870. Emphasis is placed on a comparison of the cultural forms, political institutions, social relations, and economic structures that resulted from the interactions among people of different socially defined cultures, races, ethnicities, and social classes. Topics include the emergence of the independence movements in the Americas; political conflict and civil war in the newly independent countries; and the consolidation of stable nation states by 1870. The United States Constitution and subsequent political institutions in the United States are compared to the other newly independent countries in the Americas.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

This course is intended for students majoring in History and those interested in the history of the Americas. (FT) AA/AS; CSU; UC.

115B History of the Americas II

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a history of the Americas from 1865 to the present. Emphasis is placed on the application of classical liberalism during the late nineteenth century, construction of corporatist states during the mid-twentieth century, and the advent of neo-liberalism in the late twentieth century. Topics include the development of the California State Constitution, the expansion of commerce, and international relations among nations in the Western Hemisphere. This course is intended for students majoring in History and those interested in the history of the Americas. (FT) AA/AS; CSU; UC.

120 Introduction to Asian Civilizations

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course examines the social, cultural, and political evolution of distinct civilizations in East, South, and Southeast Asia from prehistory to the end of the sixteenth century. Emphasis is placed on topics such as the development of indigenous religions/philosophies, the rise and decline of regional kingdoms/dynasties, cultural achievements, and gender roles. This course is intended for all students interested in Asian history and culture. (FT) AA/AS; CSU; UC.

121 Asian Civilizations in Modern Times

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course examines the evolution of the distinct cultures, thought, and institutions in East, South, and Southeast Asia from the sixteenth century to the present through critical investigations into the impact of modernization on the political, social, economic, and cultural dimensions of these societies. Emphasis is placed on topics such as the first encounters with Western powers, the evolution of Western imperialism, the rise of nationalist movements and independent nation states, and

their evolution and progress to the present. This course is intended for all students interested in Asian history and culture. (FT) AA/AS; CSU; UC.

123 U.S. History from the Asian Pacific American Perspective

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course examines the global, national, and local forces that shaped the lives of Asian Pacific Islander Americans (APIA) from the 1850s to the present. Topics include labor, migration, and settlement of diverse APIA groups; national debates over legal, social, and economic inclusion and exclusion; American overseas expansion; racial and gender politics; family formation; pan-ethnicity; and California constitutionalism. This course is intended for all students interested in history, ethnic studies, and Asian American studies. (FT) AA/AS; CSU; UC.

290 Independent Study

3–9 hours other, 1–3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of history. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Human Services (HUMS)

75 Working with Homeless and At-Risk Populations

**2 hours lecture, 2 units
Grade Only**

This course prepares students to work with San Diego's homeless and at-risk populations. Topics include an overview of populations and their unique needs. Emphasis is placed on community resources as well as skills needed for front line direct service work. This course is designed for anyone interested in working with homeless and at-risk populations in the areas of human services, social work, alcohol and other drug studies, community health work, gerontology, and psychology. (FT) AA/AS.

95 Public Assistance and Benefits Program

**1 hour lecture, 1 unit
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Human Services 100.

This course is a practical study of current public assistance and benefits programs at the local, state, and federal levels. Emphasis is placed on assistance program structures, eligibility requirements, and scope and duration of benefits. This course is designed for human services students and anyone interested in public assistance and benefits programs. (FT) AA/AS.

101 Introduction to Human Aging

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This is an introduction to the field of social gerontology. A multidisciplinary approach is utilized to examine the basic biological, psychological, and social aspects of aging. Emphasis is placed on the special needs and problems impacting the aged population. Historical, social, and cross-cultural issues in aging are examined. This course is intended for students majoring in behavioral sciences and gerontology as well as all students interested in human aging. (FT) AA/AS; CSU.

103 Introduction to Community Health Work

**3 hours lecture, 3 units
Grade Only**

This course is an introduction to Community Health Work (CHW). Emphasis is placed on the role of the Community Health Worker as a promoter of health and healthy living within the health care and public health systems. Topics include the fundamentals of public and preventive health in global and community perspective, community health challenges, and the role of education and advocacy in creating and maintaining healthy communities. This course is designed for Human Services students and anyone interested in Community and Public Health. (FT) AA/AS; CSU.

105 Family Strengthening Models in Behavioral Health

**3 hours lecture, 3 units
Grade Only**

This course is a practical study of the family strengthening model as it applies to behavioral health challenges. Emphasis is placed on the various support programs available to individuals and families, how to access those resources, how to advocate for care, and how to implement care to promote health and well-being. This course is designed for human services students and individuals currently working in the behavioral health field or interested in entry-level positions in the field. (FT) AA/AS; CSU.

110 Social Work Fields of Service

**3 hours lecture, 3 units
Grade Only**

This course is an introduction to the major fields of social work practice in institutions, public and private agencies, and other community settings. Students examine and differentiate between the predominant settings in which social work is practiced and the role of social work in contemporary society in relation to social injustice, diversity, cross-cultural issues, and economic factors. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

111 Introduction to Chronic Disease**3 hours lecture, 3 units
Grade Only**

Through interactive lectures, discussions of readings and case studies, the course covers the historical, practical, and theoretical aspects of chronic disease. In addition, students learn about chronic disease risk factors and chronic disease management interventions. This course is designed for Human Services students and anyone interested in community health work with chronic disease patients and their families and communities. (FT) AA/AS; CSU.

112 Community Service Practicum**3 hours lecture, 3 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Human Services 103 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Human Services 113 or Human Services 116.

This course is a practical application of the skills and tools required to work in the community. Emphasis is placed on creating needs assessments and focus groups in order to define an issue to be addressed through a community organization project. Students may develop and execute an individual project, take part in a group project, or complete an internship at a community organization. This course is designed for human services students and anyone interested in community organizing. (FT) AA/AS; CSU.

114 Introduction to Restorative Justice: Concepts, Theory and Philosophy**3 hours lecture, 3 units
Grade Only**

This course is a theoretical and practical study of restorative practices. Emphasis is placed on preparing students in the practice of Restorative Practices within alternative dispute resolution models. This course is intended for students interested in working with youth and adults in the areas of health, mental health, education, and/or corrections. (FT) AA/AS; CSU.

118 Diversity and Cultural Competency**3 hours lecture, 3 units
Grade Only**

This course is a practical study of the concepts of diversity, cultural competency and inclusion as they relate to human services organizations and delivery

systems. Emphasis is placed on the identification of institutional racism and the application of the principles of organizational inclusion to facilitate increased organizational effectiveness in serving diverse communities. This course is for students majoring in human services and those working in the field. (FT) AA/AS; CSU.

120 Introduction to Social Work**3 hours lecture, 3 units
Grade Only**

This course is an introduction to the field of social work. It covers the historical development of social work as a profession. The core knowledge base, including theoretical perspectives underpinning the profession, are introduced. Emphasis is placed on social work roles, training, methods of intervention, and core social work values and ethics. Students are required to complete 40 hours of volunteer work with an instructor-approved social service setting. This course is intended for social work majors and those interested in the field. (FT) AA/AS; CSU.

121 Practicum 1: Core Competencies**3 hours lecture, 3 units
Grade Only**

Advisory: Human Services 103 with a grade of "C" or better, or equivalent.

This course is a practical application of the skills and tools required to work in the community. Emphasis is placed on in-class practice of Community Health Work (CHW) core competencies particularly regarding communication skills, leadership skills, group facilitation skills, health education skills, advocacy skills, individual and community assessment skills and self-care practices. Students may develop and execute an individual project and take part in a group project. This course is designed for Human Services students and anyone interested in community organizing. (FT) AA/AS; CSU.

122 Practicum 2: Field Work**2 hours lecture, 2 units
Grade Only**

Corequisite: Human Services 270.

Advisory: Human Services 121 with a grade of "C" or better, or equivalent.

This course is designed to mentor students enrolled in a field placement course and provides the opportunity to discuss and analyze their experiences while performing their roles and responsibilities as Community Health Workers (CHWs) in the field. Emphasis is placed on application of knowledge

especially in the areas of healthy lifestyles, preventive care, community development, team participation, and health behavior modification. (FT) AA/AS; CSU.

125 Health Services Fields of Practice
3 hours lecture, 3 units
Grade Only

This course is an introduction to and overview of private, public and clinical community health settings and the health services field. Students gain a working knowledge of public and private community health care systems and delivery, with emphasis on services provided by public and social agencies. Issues relating to access to health care, vulnerable populations, ethical issues and policy development are examined. This course helps prepare for beginning positions and/or retraining in public and private agencies and for community volunteer work in health and human service settings. (FT) AA/AS; CSU.

270 Work Experience
54 - 216 hours other, 1-4 units
Grade Only

This course provides on-the-job learning experiences for students employed in a Human Services-related job or internship. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring in Human Services or those interested in the Human Services field. (FT) AA/AS; CSU.

276 Field Work in Gerontological Services
1 hour lecture, 3-9 hours other, 2-4 units
Grade Only

Corequisite: Completion of or concurrent enrollment in Human Services 101 with a grade of "C" or better, or equivalent.

This supervised field experience course allows students to be of service to older individuals in the community while observing the ways in which organizations deal with the various aspects of aging, policy, advocacy, and diversity. Emphasis is placed on providing students with practical experience in basic helping skills as well as the opportunity to explore varied career choices in the field of

gerontological services. This course is designed for human services students specializing in gerontology. (FT) AA/AS; CSU.

Humanities (HUMA)

101 Introduction to the Humanities I
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This interdisciplinary course is designed for students interested in meeting general education requirements in humanities. The course develops students' understanding and appreciation of humankind's cultural heritage from the Upper Paleolithic (ca. 40,000 BCE) to approximately 1400 CE. A survey is made of the literature, philosophy, music, painting, architecture, and sculpture of both Western and non-Western civilizations. (FT) AA/AS; CSU; UC.

102 Introduction to the Humanities II
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This interdisciplinary course is designed for students interested in meeting general education requirements in humanities. The course develops students' understanding and appreciation of humankind's cultural heritage from approximately 1400CE to the present time. A survey is made of the literature, philosophy, music, painting, architecture, and sculpture of both Western and non-Western civilizations. (FT) AA/AS; CSU; UC.

103 Introduction to the New Testament
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

(FT) = A field trip may be required for this course.
 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

This course provides a survey of the New Testament period (First Century C.E.). Emphasis is placed on the history and culture of the New Testament period, the methods of critical analysis of Biblical materials, and the content of the New Testament. The impact of the New Testament on western culture is also examined. This course is intended for students of history, literature, anthropology or those with a general interest in biblical studies. (FT) AA/AS; CSU; UC.

106 World Religions

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to the basic elements of the religions of the world, their similarities and differences, and their impact on believers and society. The course includes a study of the historical development, doctrines, rituals, sects, and scriptures of the major religions of the world. Some analysis of ancient religious traditions and tribal religious beliefs and practices may be included. This course is intended for all students interested in humanities and the study of world religions. (FT) AA/AS; CSU; UC.

201 Mythology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This interdisciplinary course introduces students to the major images and themes of the myths of widely separated peoples of the world throughout history. By analyzing various archetypal patterns found in the great civilizations and tribal cultures of the world, students understand both the uniqueness of each culture's world view and the commonality of human mythological conceptions. Literature and the arts are used to demonstrate these cultures' mythic ideas. This course is meant for students in the Humanities and for those interested in the myths of the world. (FT) AA/AS; CSU; UC.

202 Mythology: Hero's Journey

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the hero's journey. Emphasis is placed on the internal and external dimensions of the hero's journey as reflected in myths of the world

through written and other artistic sources. This course is intended for all students majoring in the Humanities and all students interested in mythology. (FT) AA/AS; CSU.

290 Independent Study

3–9 hours other, 1-3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is designed for students who evidence the ability and interest in pursuing special studies in Humanities. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research and preparing reports. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Information, Network, and Web Technologies (INWT)

100 Computing Fundamentals (A+)

3 hours lecture, 3 hours lab, 4 units

Letter Grade or Pass/No Pass Option

This is a project-oriented course that covers the fundamental methodologies of working as an information technology (IT) support professional. Emphasis is placed on hands-on experience deploying, securing, and maintaining computing technology. Topics include operating systems (OSs), security concepts, hardware and networking, virtualization and cloud computing, mobile devices, and operational procedures. This course is intended for students who want to develop essential skills and fundamental knowledge of computing technology. (Preparatory course for CompTIA A+ certification - DoD 8140/8570.01-M) (FT) AA/AS; CSU.

101 Introduction to Information Security
3 hours lecture, 3 units
Grade Only

This course is an introduction to a variety of information security topics. Emphasis is placed on foundational technical concepts as well as the strategic and operational aspects of managing an information security program. Topics include the foundations of information security; legal, ethical and professional issues of security and privacy; threat and vulnerability assessment; security risk management; roles and responsibilities of personnel; introductory cryptography; security considerations in system support; and access controls and maintenance for securing information assets. This course is designed for students interested in information and technology assets and a general awareness of security issues in these systems. (FT) AA/AS; CSU.

102 Information Technology (IT) Fundamentals
1 hour lecture, 1.5 hours lab, 1.5 units
Grade Only

This is a project-oriented course that covers all areas of IT foundations, creating a broader understanding of IT making it ideal for non-technical professionals interested in the IT field. Emphasis is placed on the essential IT skills and knowledge needed to perform tasks commonly performed by advanced end-users and entry-level IT professionals. Topics focus on the knowledge and skills required to identify and explain the basics of computing, IT infrastructure, software development, and database use. This course follows the official Computing Technology Industry Association (CompTIA) curriculum and is designed for students who plan to take the CompTIA IT Fundamentals+ exam. (FT) AA/AS; CSU.

111 Windows Desktop Administration
1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option

This course is an in-depth study of installation and configuration methodologies of a current Windows desktop operating system. Emphasis is placed on the various methods to deploy, configure, secure, manage, and monitor devices and client applications in an enterprise environment. This course is designed for students who plan to take related Microsoft certification exams. (FT) AA/AS; CSU.

112 Windows Infrastructure Administration
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only

This course is an in-depth study of the administration of Windows Server in a cloud and hybrid environment. Emphasis is placed on the services that span storage, security, networking, and cloud computing capabilities in an enterprise environment. This course is designed for students who plan to take Microsoft Role-based certification exams. (FT) AA/AS; CSU.

120 Network Fundamentals (Network+)
3 hours lecture, 3 hours lab, 4 units
Letter Grade or Pass/No Pass Option

Advisory: Information, Network, and Web Technologies 100 with a grade of “C” or better, or equivalent.

This is a project-oriented course that covers the fundamental methodologies used to securely establish, maintain, and troubleshoot networking systems and devices. Emphasis is placed on designing, configuring, managing, and maintaining secure wired and wireless networks. Topics include switching and routing management, firewalls, policies and procedures, hardening, security, and optimization of networking technologies. This course is intended for students who want to develop essential skills and fundamental knowledge of network infrastructure. (Preparatory course for CompTIA Network+ certification - DoD 8140/8570.01-M). (FT) AA/AS; CSU; C-ID ITIS 150.

125 Cloud+ Certification Training
2.25 hours lecture, 2.25 hours lab, 3 units
Letter Grade or Pass/No Pass Option

This course is an in-depth study of the skills needed to maintain and optimize cloud infrastructure services. Emphasis is placed on incorporating and managing cloud technologies as part of broader systems operations. Topics include configurations and deployments, management, maintenance, security, and troubleshooting cloud-based, hybrid, and multi-cloud environments. This course follows the official Computing Technology Industry Association (CompTIA) curriculum and is

(FT) = A field trip may be required for this course.
 AA/AS = Associate Degree Applicable
 CSU = California State University Applicable
 UC = University of California Applicable
 Milestone formerly referred to as Skill Level

designed for students planning to take the Cloud+ certification exam. (FT) AA/AS; CSU.

140 Security Fundamentals (Security+)

**1.5 hours lecture, 4.5 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Information, Network, and Web Technologies 100 and Information, Network, and Web Technologies 120 with a grade of “C” or better, or equivalent.

This is a project-oriented course that covers the fundamental methodologies necessary to perform core security functions. Emphasis is placed on the knowledge and skills required to assess the security posture of an enterprise network environment and recommend and implement appropriate security solutions. Topics include architecture and design, implementation, threats and vulnerabilities, operations and incident response, and risk and compliance. This course is intended for students who want to develop essential skills and fundamental knowledge required of any cybersecurity role. (Preparatory course for CompTIA Security+ certification - DoD 8140/8570.01-M). (FT) AA/AS; CSU.

145 Linux Administration (Linux+)

**3 hours lecture, 3 hours lab, 4 units
Letter Grade or Pass/No Pass Option**

This is a project-oriented course that covers the fundamental methodologies used to administer Linux systems. Emphasis is placed on the skills needed to successfully configure, manage, and troubleshoot Linux systems. Topics include installation, kernel modules, storage and virtualization, device management, automation, networking and security, command line, and troubleshooting. This course is intended for students who want to develop essential skills Linux administration. (Preparatory course for CompTIA Linux+ certification). (FT) AA/AS; CSU.

170 Network Defense & Countermeasures (CySA+)

**1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only**

Advisory: Information, Network, and Web Technologies 120 and Information, Network, and Web Technologies 140, each with a grade of “C” or better, or equivalent; English 101 with a grade of “C” or better, or equivalent.

This is a project-oriented course that focuses on the skills needed to proactively defend and continuously improve the security of an organization. Emphasis

is placed on the application of behavioral analytics to networks to improve the overall state of security through identifying and combating malware and advanced persistent threats (APTs). Topics include threat and vulnerability management, software and systems security, incident response, security and operations monitoring, and compliance and assessment. This course is intended for students who want to develop essential skills for continuous security monitoring. (Preparatory course for CompTIA CySA+ certification - DoD 8140/8570.01-M). (FT) AA/AS; CSU.

185 AWS Cloud Foundations (CF)

**1 hour lecture, 1.5 hours lab, 1.5 units
Grade Only**

Prerequisite: Information, Network, and Web Technologies 102 with a grade of “C” or better, or equivalent.

This is a project-oriented course designed for students who seek an overall understanding of cloud computing concepts – specifically Amazon Web Services (AWS). Emphasis is placed on the skills necessary to effectively demonstrate an overall understanding of the AWS Cloud, independent of specific technical roles. Topics include an overview of cloud concepts, AWS core services, security, architecture, pricing, and support. This course follows the official AWS Academy curriculum and is designed for students who plan to take the AWS Certified Cloud Practitioner exam. (FT) AA/AS; CSU.

186 AWS Academy Cloud Architecting

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Information, Network, and Web Technologies 185 with a grade of “C” or better, or equivalent.

This is a project-oriented course designed to help students develop technical expertise in cloud computing – specifically Amazon Web Services (AWS). Emphasis is placed on the ability to effectively demonstrate knowledge of how to architect and deploy secure and robust applications on AWS technologies. Topics focus on the ability to define a solution using AWS architectural design principles and provide implementation guidance based on best practices throughout the lifecycle of the project. This course follows the official AWS Academy curriculum and is designed for students who plan to take the AWS Certified Solutions Architect - Associate exam. (FT) AA/AS; CSU.

200 Ethical Hacking and Penetration Testing

3 hours lecture, 3 hours lab, 4 units
Letter Grade or Pass/No Pass Option

Advisory: Completion of or concurrent enrollment in Information, Network, and Web Technologies 120, and Information, Network, and Web Technologies 140, each with a grade of “C” or better, or equivalent. This is a project-oriented course that focuses techniques used to determine the resiliency of networks against attacks. Emphasis is placed on skills used to plan, scope, exploit, and manage weaknesses in networks. Topics include threat vector identification, network scanning, operating system (OS) detection, vulnerability analysis, system hacking and testing, and report writing. This course is designed for students who plan to take the Certified Ethical Hacker (CEH) and/or PenTest+ certification exam or anyone who is concerned about the integrity of network infrastructure. (FT) AA/AS; CSU.

Italian (ITAL)

101 First Course in Italian

5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Italian 100. This is the first course in the Italian language sequence. In this interactive course, students use basic vocabulary, grammatical structures and idiomatic phrases to speak, listen, read, and write in Italian at the novice level. Emphasis is placed on daily life activities as well as Italian history, culture, and geography. This course is intended for all students interested in Italian language and culture. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

102 Second Course in Italian

5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: Italian 101 with a grade of “C” or better, or equivalent or two years of high school Italian or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Italian 100. This is the second course in the Italian language sequence. In this interactive course, students use increasingly complex language at the high-novice level. Topics include vocabulary, grammatical

structures, and tenses to analyze and express opinions related to a variety of topics, including Italian culture, politics, and the environment. Emphasis is placed on daily life activities as well as Italian history, culture, and geography. This course is intended for all students interested in Italian language and culture. (FT) AA/AS; CSU; UC.

201 Third Course in Italian

5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: Italian 102 with a grade of “C” or better, or equivalent or three years of high school Italian or equivalent. This is the third course in the Italian language sequence. In this interactive course, students use intermediate level vocabulary, grammatical structures, and tenses to analyze and to express opinions related to a variety of topics, including Italian culture, politics, and the environment. This course is intended for all students interested in Italian language and culture. (FT) AA/AS; CSU; UC.

210 The Grammar of Spoken Italian I

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Italian 102 with a grade of “C” or better, or equivalent. This course is designed to develop and enhance oral communication skills by means of reading, listening, and practicing Italian in various contexts. Topics include everyday life situations, current events, and culture. The course also includes grammar review, reading and discussion of contemporary literature, and written compositions. This course is conducted entirely in Italian and is intended for intermediate-level students interested in increased fluency in the Italian language. (FT) AA/AS; CSU; UC.

211 The Grammar of Spoken Italian II

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Italian 210 with a grade of “C” or better, or equivalent. This course is designed to enhance and refine oral comprehension, fluency, and written communication

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in Italian. Students use advanced vocabulary and idiomatic phrases to express themselves orally and in writing in social, cultural, and academic settings. This course is conducted entirely in Italian and is intended for advanced-level students interested in increased fluency in the Italian language. (FT) AA/AS; CSU; UC.

290 Independent Study

Hours by Arrangement, 1–3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Must obtain a permission number from instructor for registration.

For intermediate students who wish to work on special projects. AA/AS; CSU.

Journalism (JOUR)

Note: San Diego City College and San Diego Mesa College offer journalism programs unique to their campuses, and are not interchangeable. City College classes, degrees and certificates are now found under Film, Journalism, and Media Production (FJMP). Mesa College classes, degrees and certificates are still found under Journalism (JOUR). If you have questions, consult with the respective colleges' faculty to determine the program track that is right for you.

200 Introduction to Newswriting and Reporting

3 hours lecture, 3 units
Grade Only

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 200 or Film, Journalism, and Media Production 130. The course is an introduction to evaluating, gathering, and writing news in accepted journalistic style under newsroom conditions. Topics include the role of the reporter and the legal and ethical issues related to reporting. Students have writing and reporting experiences, including: personal interviews, speech/ meeting/event coverage, deadline writing, and use of AP style. This course is designed for journalism majors and is intended for students interested in learning to write for student media and other publications. (FT) AA/AS; CSU; C-ID JOUR 110.

202 Introduction to Mass Communication

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 100 or Film, Journalism, and Media Production 101. This course is a survey of mass communication in the United States. Emphasis is placed on the historical and contemporary impact of the media on society and culture as well as on the ways that social institutions shape the media. Students examine media related issues as they relate to social and cultural constructs, economics, technology, law and ethics, and social issues. This course is designed for journalism majors and all students interested in the relationship between mass media and society. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID JOUR 100.

Labor Studies (LABR)

100 American Labor Movement

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the United States (U.S.) labor movement in historical perspective. Emphasis is placed on the struggles and philosophy of American workers from the colonial era to the present. Topics include, early American class and race conflicts, the fight against slavery, the intersection of race and gender in the workplace and in American politics, the rise of globalization, and the labor movements of the 21st century. Students are required to analyze a variety of primary and secondary sources, think critically, and write thesis-base essays. This course is designed for students majoring in labor studies or history and all students interested in the American labor movement, including students who are employees and/or union members, and workers who are in leadership roles or are preparing for leadership positions in their workplace or unions. (FT) AA/AS; CSU; UC.

102 Labor Law**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Labor Studies 105. Labor Law provides an overview of the legal framework and doctrines governing labor-management relations and the workplace rights of minorities and other individual employees. While “Labor Law” generally refers to the National Labor Relations Act or equivalent public sector laws, this class also covers laws that are sometimes referred to as “employment” laws. They include the various discrimination, retaliation, wage, and safety laws that may be enforced by individuals or unions. These laws offer additional ways to facilitate organizing and contract campaigns, as well as grievance handling. Designed to provide practical legal background for the study and practice of labor relations both in California and in the nation at large. This course focuses on real problems brought to the class by the students, and it aims to stimulate ways of using the law to build your local unions, as well as to support broader efforts such as organizing temporary workers, coalition work with human rights and environmental groups, and political lobbying campaigns. This course is intended for anyone interested in Labor Law including students who are employees and/or union members, and individuals who are in leadership roles or are preparing for leadership positions in the workplace or in unions. (FT) AA/AS; CSU.

104 Collective Bargaining**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

This course covers major collective bargaining issues including the right to organize, employer/employee rights and the union, the structure of bargaining, bargaining strategies, the organizing component for setting the “climate” for bargaining, negotiating written agreements, public sector bargaining, impasse and arbitration procedures and mock negotiations. This course is intended for workers who are in leadership roles or are preparing for leadership positions in their workplace or unions. (FT) AA/AS; CSU.

107 Organizing**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Labor Studies 90.

This course is an in-depth study of labor and community organizing. Emphasis is placed on labor and community activism and leadership and organizing theories and techniques. Students analyze various campaigns to illustrate the process of building a culture and capacity for labor and community organizing. This course is designed for labor studies majors, union members, and all members of the community interested in organizing. (FT) AA/AS; CSU.

108 Labor and Politics**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Labor Studies 135. This course explores the labor movement’s role in politics. The class focuses on local, national and international political issues that impact trade, employment, workers’ rights, and the lives of working Americans. It addresses labor’s relationship to political action committees, the political parties, its activities in the broader political arena, and its interactions with social movements. Specifically, electoral politics, lobbying, strike strategy, living wage and other social justice campaigns, community organizing, class and identity politics, and responses to corporate globalization are addressed in a variety of contexts. This course involves students in hands-on by inviting them to investigate the political process themselves by getting involved in some capacity. This course is intended for anyone interested in the political strategy and tactics of the labor movement, including students who are employees and/or union members, and workers who are in leadership roles or are preparing for leadership positions in their workplace or unions. (FT) AA/AS; CSU.

122A Shop Steward, Level I**1 hour lecture, 1 unit****Letter Grade or Pass/No Pass Option**

This hands-on course covers the rights and responsibilities of shop stewards. It emphasizes development of communication and informal problem-solving skills, investigation and preparation

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

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Milestone formerly referred to as Skill Level

of grievances, and interpreting and explaining the contract for members. The class addresses the current or past concerns and issues that students deal with in their workplace. This course is designed for shop stewards, union members, and employees who want to learn basic workplace rights and problem-solving skills. (FT) AA/AS; CSU.

122B Shop Steward, Level II

**1 hour lecture, 1 unit
Letter Grade or Pass/No Pass Option**

The course covers skills and knowledge needed for more advanced shop steward responsibilities, such as recruiting new members, providing new member orientations, and educating members on political and workplace issues. It focuses on organizing members to address workplace issues as a group, helping with contract negotiations, and developing the communication and interpersonal skills to deal with difficult individuals. This course is designed for shop stewards, union members, and employees who want to have a leadership role in their union or place of employment. (FT) AA/AS; CSU.

123A Occupational Safety and Health

**1.5 hours lecture, 1.5 units
Letter Grade or Pass/No Pass Option**

This hands-on course studies the relationship between work and health through a variety of perspectives, beginning with the history of workplace injury, illness and death in the United States. Students learn the Occupational Safety and Health legislation and its implementation at the federal and state level as well as employer and employee rights and responsibilities; the elements of a successful injury and illness prevention program in the workplace; and how to identify and evaluate hazards and control measures. Students apply the topics covered in the course to problem-solving based on workplace experience and case studies. This course is intended for students who are employees and/or union members interested in improving workplace health and safety. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Liberal Arts and Sciences (LBAS)

100 Introduction to Climate Literacy

**1 hour lecture, 1 unit
Grade Only**

This course is an introduction to the fundamentals of climate literacy from the scientific and non-scientific lens. Topics include basic mechanics of climate change and how it affects communities and culture. Emphasis is placed on climate change, sustainability, and environment and social justice issues related to climate change. This course is intended for all students interested in climate literacy. (FT) AA/AS; CSU.

Library Science (LIBS)

101 Information Literacy and Research Skills

**1 hour lecture, 1 unit
Letter Grade or Pass/No Pass Option**

Advisory: Completion of or concurrent enrollment in English 101 with a grade of "C" or better, or equivalent.

This course provides an overview of information resources and the skills required to use them effectively. Emphasis is placed on locating, navigating, and evaluating various information resources and the applicability of research skills in both personal life and future academic endeavors. Topics include examining library resources such as print and electronic indexes, books, and periodicals; electronic databases; online and in-person library services; effective internet searching; and developing research strategies. This course is intended for students who wish to acquire research skills for academic, career, or personal use. (FT) AA/AS; CSU; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Machine Technology (MACT)

140 Machine Technology

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

This course is an introduction to the Machine Technology field. Emphasis is placed on safety, measurements, common formulas, machining applications, drawings, and career opportunities in the field. This course is designed for students planning to major in the occupational field of machine technology. (FT) AA/AS; CSU.

150 Intro/Computer Numerical Control (CNC)

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

This course is a study of advanced machining techniques including numerically controlled mills and lathes. Emphasis is placed on introducing the student to Computer Numerical Control (CNC) programming using "G" and "M" codes. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

160M Introduction to CAD/CAM

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Advisory: Concurrent enrollment in Machine Technology 161M.

This course is an introductory, hands-on study of Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) theory and applications using Mastercam software. Emphasis is placed on generating programs at a basic level for both the Computer Numerical Control (CNC) Mill and CNC Lathe. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

161M Applications of CAD/CAM I

**6 hours lab, 2 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 160M with a grade of "C" or better, or equivalent.

This course presents students with intermediate-level Computer Aided Design/Computer Aided Manufacturing CAD/CAM projects dealing with Computer Numerical Control (CNC) program generation for the CNC Mill and CNC Lathe

using Mastercam software. Students at this level work under moderate instructor supervision to increase efficiency and quality of work. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

162M Applications of CAD/CAM II

**6 hours lab, 2 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 161M with a grade of "C" or better, or equivalent.

This course presents students with advanced-level Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) exercises dealing with Computer Numerical Control (CNC) program generation for the CNC Mill and CNC Lathe using Mastercam. Students at this level work with minimal instructor supervision to increase efficiency and quality of work. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

170 Introduction to CNC Controlled Vertical Machining

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 150 with a grade of "C" or better, or equivalent.

This course is an introductory, hands-on study of Computer Numerical Control (CNC) Vertical Machining and CNC Lathe theory and techniques. Emphasis is placed on Vertical Machining operations. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

(FT) = A field trip may be required for this course.

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Milestone formerly referred to as Skill Level

171 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers I

**6 hours lab, 2 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 170 with a grade of "C" or better, or equivalent.

This laboratory course provides exercises in Computer Numerical Control (CNC) Vertical Machining techniques and CNC Turning techniques at an intermediate level. Students at this level work under moderate instructor supervision to increase efficiency and quality of work. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

172 Application of CNC Controlled Vertical Machining and CNC Controlled Turning Centers II

**6 hours lab, 2 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 171 with a grade of "C" or better, or equivalent.

This laboratory course provides exercises in Computer Numerical Control (CNC) Vertical Machining techniques and CNC Turning techniques at an advanced level. Students at this level work under minimal instructor supervision to increase efficiency and quality of work. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

180M Advanced CAD/CAM

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 161M with a grade of "C" or better, or equivalent.

This course is an advanced, hands-on study of Computer Aided Design / Computer Aided Manufacturing (CAD/CAM) theory and applications using Mastercam software. Emphasis is placed on generating programs using advanced modeling surface techniques for both the Computer Numerical Control (CNC) Mill and CNC Lathe at a beginning level under direct instructor supervision. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

181M Application in Advanced CAD/CAM I

**6 hours lab, 2 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 180M with a grade of "C" or better, or equivalent.

This course is an advanced, hands-on study of Computer Aided Design / Computer Aided Manufacturing (CAD/CAM) theory and applications using Mastercam software. Emphasis is placed on generating programs using advanced modeling techniques for both the Computer Numerical Control (CNC) Mill and CNC Lathe at an intermediate level under moderate instructor supervision. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

182M Application in Advanced CAD/CAM II

**6 hours lab, 2 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Machine Technology 181M with a grade of "C" or better, or equivalent.

This course is an advanced, hands-on study of Computer Aided Design / Computer Aided Manufacturing (CAD/CAM) theory and applications using Mastercam software. Emphasis is placed on generating programs using advanced surface modeling techniques for both the Computer Numerical Control (CNC) Mill and CNC Lathe at an advanced level under minimal instructor supervision. This course is intended for students majoring in machine technology or for professionals who want to update their skills. (FT) AA/AS; CSU.

290 Independent Study in Machine Technology

**Hours by Arrangement, 1–3 units
Grade Only**

Limitation on Enrollment: Must obtain a permission number from instructor for registration.

For advanced students in machine technology who wish to pursue problems and projects relating to their particular subject area. The student meets with the instructor at specific intervals and is expected to do primary research, analyze problems and submit reports. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction

(296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Marketing (MARK)

100 Principles of Marketing

3 hours lecture, 3 units
Grade Only

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent

This course is an overview of the foundations, principles, processes, and goals of marketing. Topics include ethics and social responsibility; global marketing and world trade; corporate marketing strategies; and emerging technologies. Marketing strategies include product planning, development, pricing, distribution, and promotion. This course is intended for students majoring in business or others working in a business environment such as managers and supervisors. (FT) AA/AS; CSU.

105 Professional Selling

3 hours lecture, 3 units
Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the principles of sales and selling. Emphasis is placed on the role of human relations in the processes of selling products, services and ideas. Topics include sales techniques, including opening the sale, discovering the needs and wants of the client, addressing objections and closing the sale. Students develop and deliver written and oral sales presentations. This course is designed for students majoring in business or marketing and anyone interested in the sales profession. (FT) AA/AS; CSU.

130 Advertising Principles

3 hours lecture, 3 units
Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the principles and practices of advertising. Emphasis is placed on target marketing, consumer behavior, and Integrated Marketing Communications (IMC). This course is designed for students majoring in business or

marketing and anyone interested in employment or a career in the field of advertising. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Manufacturing Engineering Technology (MFET)

101 Introduction to Manufacturing Engineering Technology

3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Manufacturing Engineering Technology 101A or 101B or 101C.

This course is designed for students who are interested in the field of Manufacturing Engineering Technology (MFET). The course introduces manufacturing principles, including manufacturing systems, design concepts, process and material selection, computer-integrated manufacturing, quality control and management, global competitiveness and manufacturing costs, safety and environmental concerns. It also provides an overview of the MFET program structure, job perspectives for graduates, salary ranges and various career options in manufacturing. (FT) AA/AS; CSU.

105 Print Reading and Symbology

3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Manufacturing Engineering 105A or 105B, or Engineering 108.

This course is a study of the types of symbols and engineering notations used for mechanical, electrical, electronic, hydraulic and pneumatic

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

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UC = University of California Applicable

Milestone formerly referred to as Skill Level

diagrams, as well as precision sheet metal drawings and welding specifications. Other topics include scales, precision measurement instruments, geometric dimensioning and tolerancing (GD&T). Actual drawings are used to demonstrate concepts and practice in interpreting the symbols and notations. This course is designed for students who are currently working in a manufacturing plant or pursuing a career in an engineering or technology field. (FT) AA/AS; CSU.

107D STEM Drone Building

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Corequisite: Completion of or concurrent enrollment in Manufacturing Engineering Technology 101 with a grade of "C" or better, or equivalent.

This course provides students the opportunity to apply manufacturing engineering technology skills to build a multi-rotor Unmanned Aerial Vehicle (UAV), otherwise known as a drone. Students work together in teams to operate tooling in manufacturing processes. Topics include the fundamental principles of manufacturing a multi-rotor UAV, such as production, stages, quality, lean manufacturing, automation, and manufacturing prints. This course is designed for students interested in manufacturing a multi-rotor UAV and preparing to enter the manufacturing engineering technology field. (FT) AA/AS; CSU.

107G STEM Guitar Building

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Corequisite: Completion of or concurrent enrollment in Manufacturing Engineering Technology 101 with a grade of "C" or better, or equivalent.

This course provides students the opportunity to apply manufacturing engineering technology skills to build an electric guitar. Students work together in teams to operate tooling in manufacturing processes. Topics include the fundamental principles of manufacturing a guitar, such as production, stages, quality, lean manufacturing, automation, and manufacturing prints. This course is designed for students interested in guitar building and preparing to enter the manufacturing engineering technology field. (FT) AA/AS; CSU.

107H STEM High Tech Device Building

**0.5 hours lecture, 3 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option**

Corequisite: Completion of or concurrent enrollment in Manufacturing Engineering Technology 101 with a grade of "C" or better, or equivalent.

This course provides students the opportunity to apply manufacturing engineering technology skills to build a "high-tech" electronic product. Students work together in teams to operate tooling in manufacturing processes. Topics include the fundamental principles of manufacturing an electronic product, such as production, stages, quality, lean manufacturing, automation, and manufacturing prints. This course is designed for students interested in manufacturing a "high-tech" electronic product and preparing to enter the manufacturing engineering technology field. (FT) AA/AS; CSU.

110 Industrial Safety

**2 hours lecture, 2 units
Letter Grade or Pass/No Pass Option**

The course is a study of safety fundamentals in an industrial environment and their relationship to accident prevention. It introduces students to the Occupational Safety and Health Administration (OSHA) policies, procedures and standards for industries. Course topics include electrical safety, hazardous materials and conditions, fire protection, tools and machines, welding and cutting, personal protective equipment, hazard communication, construction, ergonomics and industrial hygiene. This course is designed for students who are currently or will be working in construction or general industries. Upon successful course completion, students may receive an OSHA 30-hour Construction or General Industry Outreach Training Completion Card. (FT) AA/AS; CSU.

114 Problem Solving and Corrective Action

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: Completion of or concurrent enrollment in: English 101 and Manufacturing Engineering Technology 101, each with a grade of "C" or better, or equivalent.

This course is designed for students who are interested in learning effective problem-solving methods used in manufacturing industries. Topics include planning for problem solving, developing a competent problem-solving team, defining and describing the problem, proposing interim

containment plans, identifying and verifying root causes, identifying and verifying permanent corrections, implementing and validating corrective actions, applying preventive measures, and effectively communicating results. Emphasis is placed on the concept of proactive problem-solving including risk analysis, design for manufacturability, and error-proofing processes. (FT) AA/AS; CSU.

115 Properties of Materials

**2.5 hours lecture, 1.5 hours lab, 3 units
Grade Only**

Advisory: Chemistry 100 with a grade of "C" or better, or equivalent.

This lecture/lab course is a study of the chemical, physical and mechanical properties of industrial materials including metals, ceramics, polymers and composites. The course emphasizes the processes and tests used with different industrial materials during the manufacturing cycles. It also discusses function and structure as they relate to specific design considerations. This course is designed for students who are currently working in a manufacturing plant or pursuing a career in engineering and technology fields. (FT) AA/AS; CSU.

120 Manufacturing Processes

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Corequisite: Completion of or concurrent enrollment in Manufacturing Engineering Technology 115 with a grade of "C" or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Engineering 151 or 111, each with a grade of "C" or better, or equivalent.

This lecture/lab course provides basic understanding of how raw materials, including metals, polymers, ceramics and composites, are converted to finished products. In this course, students study commonly used and advanced manufacturing processes, understand the pros & cons of different industrial techniques. Students also learn key terms in manufacturing, and identify various types of equipment in common manufacturing processes. This course is designed for students who are pursuing a career in engineering or engineering technology fields, or working in a manufacturing industry. (FT) AA/AS; CSU.

150 Manufacturing Automation

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Prerequisite: Manufacturing Engineering Technology 120 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Manufacturing Engineering Technology 150A or 150B.

This lecture/lab course introduces students to the principles of manufacturing automation, process and machine control, programmable logic controllers, robotics, part handling and assembly. Students also learn concepts of group technology, flexible manufacturing systems and their applications in manufacturing industries. Through lectures, hands-on learning experience and demonstrations, students gain knowledge and skills in modern manufacturing that are necessary for seeking rewarding employment opportunities. This course uses a project-based learning approach. It is intended for students, technicians, technologists and engineers who are interested in manufacturing automation. (FT) AA/AS; CSU.

205 Introduction to Electronic Manufacturing Services

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: Completion of or concurrent enrollment in Manufacturing Engineering Technology 150 with a grade of "C" or better, or equivalent.

This course assists students in developing and building fundamental knowledge of the programming, setup, operation, and maintenance of electronic manufacturing systems. Topics include different surface mount components, solder paste and its application, component placement, flux and cleaning, and quality control. Students also acquire hands-on experience on entering equipment programs, operating an entire surface mount technology line, and maintaining the equipment during and after production. The course is designed for students, technicians, technologists, and engineers from industry who are interested in the

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manufacture of printed circuit board assemblies. (FT) AA/AS; CSU.

210 Statistical Process Control
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: MATH 119 with a grade of “C” or better, or equivalent, or Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations. This lecture/lab course familiarizes students with the applications of statistics in process and quality control function. Students learn to acquire, analyze and interpret data from a process to determine if it is in statistical control and capable of meeting customer’s requirements. Statistical techniques include the use of basic graphs and diagrams, control charts, process mean and variability, process capability, sampling and normal distribution. The course also introduces students to the concepts of Six Sigma and design of experiments as part of quality control and improvement. This course is designed for students who are interested in process control, quality improvement and industrial management. (FT) AA/AS; CSU.

215 Automated PCBA Inspection and Testing
3 hours lecture, 3 units
Grade Only

Advisory: Completion of or concurrent enrollment in Manufacturing Engineering Technology 114 or Manufacturing Engineering Technology 150, each with a grade of “C” or better, or equivalent. This course explores the study of automated electronic inspection and testing. Topics include the history of automated quality assurance and how it affects the world, computer integrated manufacturing, machine vision and other sensors used in industrial applications, and the role of robotics and software used for automated electronic inspection and testing. Emphasis is placed on implementing the inspection and testing of printed circuit board assemblies and box builds using an in-house automated quality assurance execution system to continually improve product quality and process efficiency. This course is intended for manufacturing technology students who have selected the Electronics Option and students interested in automated electronic inspection and testing, and automated quality assurance. (FT) AA/AS; CSU.

215L Automated PCBA Inspection and Testing Laboratory

6 hours lab, 2 units
Letter Grade or Pass/No Pass Option

Advisory: Manufacturing Engineering Technology 114 and Manufacturing Engineering Technology 205, each with a grade of “C” or better, or equivalent. *Advisory:* Completion of or concurrent enrollment in Manufacturing Engineering Technology 215 with a grade of “C” or better, or equivalent. This course explores the study of electronic assembly rework, modification, and repair. Topics include terms and definitions associated with the rework, modification, and repair, the levels of conformance and compliance with the IPC-7711/7721 standards, setting-up rework and repair stations, and utilizing tools and materials to effectively follow the rework and repair processes. Emphasis is placed on reworking and repairing or modifying printed circuit board assemblies identified using automated inspection and testing, inputting and analyzing data to make improvements to the automated electronic manufacturing processes. This course is intended for manufacturing technology students who have selected the Electronics Option and students interested in electronic assembly rework, modification, and repair. (FT) AA/AS; CSU.

220 Programmable Logic Controllers
2 hours lecture, 3 hours lab, 3 units
Grade Only

This course assists students in developing and building fundamental knowledge of the operation, construction, interfacing and programming of programmable logic controllers (PLCs). Students learn different hardware components, input and output devices associating with PLCs, and PLC applications in various manufacturing systems. Students also acquire hands-on experience on constructing, operating, configuring and programming PLCs. The course is designed for students, technicians, technologists and engineers from industry who are interested in automation and the integration of PLCs in manufacturing. (FT) AA/AS; CSU.

225 Introduction to Photovoltaic Manufacturing and Applications
3 hours lecture, 3 hours lab, 4 units
Grade Only

Advisory: Electricity 111 or Electronic Systems 124 with a grade of “C” or better, or equivalent.

This lecture/lab course is a study of solar photovoltaic (PV) cell manufacturing, the types of cells and the advantages and applications of solar PV cells. Emphasis is placed on the underlying physical and chemical characteristics of solar cells, the types of manufactured cells and modules, their fabrication processes and applications. This course is designed for students pursuing a career in engineering and technology fields and anyone interested in understanding solar photovoltaics and their applications. (FT) AA/AS; CSU.

230 Lean Manufacturing

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: Manufacturing Engineering Technology 150 and 210, each with a grade of "C" or better, or equivalent.

This overview course focuses on the terminology, tools, techniques, concepts and principles of Lean Manufacturing. Students are introduced to different Lean tools including value stream mapping, 5-S process, seven deadly wastes, standardized work flow, error proofing, setup reduction, integrated reliability, and production and inventory control. This course uses a project-based approach; provides students with theories, guided discussions, hands-on exercises and industrial case-studies. Course is open to all students who are planning to join industry or currently working in a company instituting Lean Manufacturing. (FT) AA/AS; CSU.

240 Six Sigma and Lean Implementation

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: Manufacturing Engineering Technology 210 and 230, each with a grade of "C" or better, or equivalent.

This course concentrates on six sigma concepts and implementation of lean in a business organization. Students learn the principles of six sigma and the utilization of six sigma tools in project application. The course also covers DMAIC (Define, Measure, Analyze, Improve, Control) problem solving methodology, team building and project management skills. This course is designed for those who are interested in participating in and/or implementing lean/six sigma at their organization. (FT) AA/AS; CSU.

242 Industrial Maintenance & Mechatronics **2 hours lecture, 3 hours lab, 3 units Grade Only**

Advisory: Completion of or concurrent enrollment in Manufacturing Engineering Technology 150 with a grade of "C" or better, or equivalent.

This course explores the study of classic industrial maintenance and mechatronics. Topics include hydraulics, pneumatics, mechanical drives, and machining with current electronics and electrical systems used in manufacturing today. Emphasis is placed on maintenance analysis and diagnosis; troubleshooting electrical and electronic applications; installing and servicing hydraulics and pneumatics systems; assembly equipment; Heating, Ventilating, and Air Conditioning (HVAC); and building systems. This course is intended for manufacturing technology students who aim to develop competencies in maintenance and/or advanced lean methodologies, and students interested in learning more about improving manufacturing operations. (FT) AA/AS; CSU.

250 Manufacturing Capstone Course

**1 hour lecture, 9 hours lab, 4 units
Grade Only**

Prerequisite: Manufacturing Engineering Technology 101, 105 and 115, each with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Manufacturing Engineering Technology 110 and 230, each with a grade of "C" or better, or equivalent. This is a capstone course for the Manufacturing Engineering Technology program. It provides students the opportunity to apply a combination of skills and knowledge to solve an industrial manufacturing problem. Students work together in groups to tackle an integrated, technical problem selected by industry and approved by program faculty. Topics include, but are not limited to, manufacturing materials and processes, design, quality, lean manufacturing and automation. This course is intended solely for students enrolled in the last semester of the Manufacturing Engineering Technology program, and is a major requirement. (FT) AA/AS; CSU.

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252 Total Productive Maintenance
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Completion of or concurrent enrollment in Manufacturing Engineering Technology 150, and Manufacturing Engineering Technology 242, each with a grade of "C" or better, or equivalent. This course explores the study of total productive maintenance (TPM), a lean manufacturing methodology. Topics include the development of maintenance systems, the pillars of TPM, Autonomous Maintenance (AM), analyzing and categorizing failure data, and deciding on a maintenance strategy. Emphasis is placed on proactive and preventative maintenance to maximize the lifespan and productivity of equipment. The aims of TPM are high: no breakdowns, no small stops or slow running, no defects, and no accidents. This course is intended for manufacturing technology students who aim to develop competencies in maintenance and/or advanced lean methodologies, and students interested in learning more about improving manufacturing operations. AA/AS; CSU.

270 Work Experience
54-216 hours, 1-4 units
Grade Only

Limitation on Enrollment: Must obtain a permission number from Work Experience Coordinator for enrollment.

A program of on-the-job learning experiences for students employed in a job related to their major or their educational goals. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. AA/AS; CSU.

Mathematics (MATH)

Basic Skills Courses

All courses at this level are offered for college credit. Credit for these courses will not apply toward the associate degree but will count toward the determination of a student's workload and eligibility for financial aid.

15A Prealgebra Refresher
3 hours lab, 1 unit
Pass/No Pass

This course is a review of prealgebra skills needed for success in subsequent mathematics courses. Students receive instruction and academic support in mathematics concepts, arithmetic operations, algebraic expressions, mathematical properties, and their application to prealgebra-specific mathematical problems. This course is designed for students who need to refresh their pre-algebra skills or need additional support in subsequent mathematics courses. Not Applicable to Associate Degree.

15B Elementary Algebra and Geometry Refresher
3 hours lab, 1 unit
Pass/No Pass

This course is a review of elementary algebra and geometry skills needed for success in subsequent mathematics courses. Students receive instruction and academic support in mathematics concepts, arithmetic operations, algebraic expressions, mathematical properties, and their application to elementary algebra- and geometry-specific mathematical problems. This course is designed for students who need to refresh their elementary algebra and geometry skills or need additional support in subsequent mathematics courses. Not Applicable to Associate Degree.

15C Intermediate Algebra and Geometry Refresher
3 hours lab, 1 unit
Pass/No Pass

This course is a review of intermediate algebra and geometry skills needed for success in subsequent mathematics courses. Students receive instruction and academic support in mathematics concepts, arithmetic operations, algebraic expressions, mathematical properties, and their application to intermediate algebra- and geometry-specific mathematical problems. This course is designed for students who need to refresh their intermediate algebra and geometry skills or need additional support in subsequent mathematics courses. Not Applicable to Associate Degree.

15D Geometry Refresher

**3 hours lab, 1 unit
Pass/No Pass**

This course is a review of geometry skills needed for success in subsequent mathematics courses. Students receive instruction and academic support in geometric shapes such as triangles, circles, and quadrilaterals; unit conversions; and calculations of perimeter, area, and volume. This course is designed for students who need to refresh their geometry skills or need additional support in subsequent mathematics courses. (FT) Not Applicable to Associate Degree.

15E Trigonometry Refresher

**3 hours lab, 1 unit
Pass/No Pass**

This course is a review of trigonometry skills needed for success in subsequent mathematics courses. Students receive instruction and academic support in angle concepts; trigonometric functions, identities, and equations; vectors; complex numbers; and application problems. This course is designed for students who need to refresh their trigonometry skills or need additional support in subsequent mathematics courses. (FT) Not applicable to the Associate Degree.

15F College Algebra Refresher

**3 hours lab, 1 unit
Pass/No Pass**

This course is a review of college algebra skills needed for success in subsequent mathematics courses. Students receive instruction and academic support in linear, polynomial, exponential, logarithmic, and other functions; non-linear inequalities; matrices; systems of equations; and linear programming. This course is designed for students who need to refresh their college algebra skills or need additional support in subsequent mathematics courses. (FT) Not applicable to the Associate Degree.

44 Supervised Tutoring in Math

**1 – 162 hours other, 0 units
No Grade/0 Units**

This no grade, no credit course is used as an attendance tracking mechanism for students receiving tutoring in the Math Center. The course is designed to prepare students to succeed in the corequisite and subsequent subject matter courses. This course may be taken four times with a different

corequisite subject matter course. College noncredit course.

AA/AS Courses

92 Applied Beginning and Intermediate Algebra

**3 hours lecture, 3 hours lab, 4 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Mathematics 265S or Mathematics 96 with a grade of "C" or better. This course emphasizes real world applications in the development of beginning and intermediate algebraic topics. Topics include a review of fractions, decimals and percents, as well as the development of linear, quadratic, rational, radical, exponential and logarithmic functions. This course is designed for those students whose major and transfer institution requires only statistics or math for liberal arts as the transfer level math course for the degree. (FT) AA/AS.

96 Intermediate Algebra and Geometry

**5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option**

Advisory: Enrollment in Mathematics 96X (which pairs Mathematics 96 with support course Mathematics 15B).

Intermediate algebra and geometry is the second of a two-course integrated sequence in algebra and geometry. This course covers systems of equations and inequalities, radical and quadratic equations, quadratic functions and their graphs, complex numbers, nonlinear inequalities, exponential and logarithmic functions, conic sections, sequences and series, and solid geometry. The course also includes application problems involving these topics. This course is intended for students preparing for transfer-level mathematics courses. (FT) AA/AS.

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98 Technical Intermediate Algebra and Geometry

4 hours lecture, 4 units
Letter Grade or Pass/No Pass Option

This course introduces an applied technology approach to problem solving in Intermediate Algebra and Geometry. Students are expected to apply problem solving techniques to technology-based situations in their technical physics and applied technology courses. Topics include scientific notation, algebra of functions, linear systems of equations, graphing using log and semi-log paper, technology applications of quadratic, exponential and logarithmic functions, right triangle trigonometry, applications in electronics of vectors and phasors. Special emphasis is placed on the use of the graphing calculator and mathematical software packages to solve application problems. This course is intended for students in the Engineering and applied technologies majors. (FT) AA/AS.

115 Gateway to Experimental Statistics

3 hours lecture, 3 hours lab, 4 units
Grade Only

This course is a second in the study of statistical methods integrated with algebraic tools to prepare students to analyze these processes encountered in society and the workplace. The course covers a review of functions, their geometric properties, counting principles and probability rules, probability distribution functions, sampling, and inferential statistics of one and two variable data sets. Students are expected to implement technology to perform calculations to analyze data and make statistical conclusions. This sequence of courses is intended for students that are not planning on majoring in a science, technology, engineering or mathematics related discipline. (FT) AA/AS; CSU; UC-transferable for students applying to UC for Fall 2016 and later. Please see a Counselor or reference ASSIST.org.

Transfer Level Courses

104 Trigonometry

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement M40 or M50 based on California Title 5 regulations; or students with Milestone M30 must enroll in Mathematics 104X (Mathematics 104 and Mathematics 15D learning community).

This course is a study of the numerical, analytical, and geometric properties of right and oblique triangles, of trigonometric and inverse trigonometric functions, and their applications. The course content includes right angle trigonometry, radian measure, circular functions, graphs of circular functions and their inverses, trigonometric identities, equations involving trigonometric and inverse trigonometric functions, an introduction of the complex plane, vectors and their operations, and the trigonometric form of complex numbers. This course is designed as a preparation for calculus and it is intended for the transfer student planning to major in mathematics, engineering, economics, or disciplines included in the physical or life sciences. (FT) AA/AS; CSU.

107 Introduction to Scientific Programming

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations.

Corequisite: Mathematics 107L.

This course is a study of the numerical, analytical, and geometric properties of right and oblique triangles, of trigonometric and inverse trigonometric functions, and their applications. The course content includes right angle trigonometry, radian measure, circular functions, graphs of circular functions and their inverses, trigonometric identities, equations involving trigonometric and inverse trigonometric functions, an introduction of the complex plane, vectors and their operations, and the trigonometric form of complex numbers. This course is designed as a preparation for calculus and it is intended for the transfer student planning to major in mathematics, engineering, economics, or disciplines included in the physical or life sciences. (FT) AA/AS; CSU; UC.

107L Introduction to Scientific Programming Lab

3 hours lab, 1 unit
Letter Grade or Pass/No Pass Option

Corequisite: Mathematics 107.

Extensive programming is required. Students are expected to plan and write programming projects with documentation. This course is recommended for students transferring to majors in Computer Science and/or mathematics. (FT) AA/AS; CSU.

109 Explorations in Mathematical Analysis
4 hours lecture, 3 hours lab, 5 units
Letter Grade or Pass/No Pass Option

This is the second of a two-course integrated sequence in algebra, geometry, critical thinking, and practical applications of mathematics. This course focuses on the ability to use mathematical concepts to develop quantitative analysis, logic and computation skills. Students analyze, construct, and dissect algebraic topics from the perspective of implementing the concepts in various real life situations and develop a strong mathematical foundation applicable to problem solving in other academic disciplines. Topics include rules of logic, in particular focusing on implications; mathematical reading; algebra of functions; graphing and analysis of functions; reading, interpreting and analyzing graphs; linear, quadratic, exponential and logarithmic modeling; solving polynomial, rational, exponential and logarithmic equations; applications of mathematics in finance and economics. This course is intended for students planning to major in any of the following fields of study: Fine Arts, Visual and Performing Arts, Humanities, Behavioral Sciences, Social Sciences, Business, Economics, or Life Sciences. This course is not intended for students planning to major in Science, Technology, Engineering, and Mathematics (STEM) fields of study. (FT) AA/AS; CSU.

116 College and Matrix Algebra
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement Milestone M40 or M50 based on California Title 5 regulations. Students with a milestone M30 must enroll in MATH 116X (Mathematics 116 and Mathematics 15C learning community). This course is designed to strengthen the algebra skills of students seeking Business or Natural Science degrees who are required to take an applied calculus course. Topics in the course include the theory of functions; graphing functions; exponential and logarithmic functions; solving equations involving algebraic, exponential and logarithmic functions; solving systems of linear equations; matrix algebra; modeling; and applications problems. Analytical reading and problem solving skills are required for success in this course. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

118 Math for the Liberal Arts Student
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement Milestone M40 or M50 based on California Title 5 regulations. Students with a milestone M30 must enroll in Mathematics 118X (Mathematics 118 and Mathematics 15B learning community). This course covers a selection of topics from logical reasoning, quantitative literacy, the history of mathematics, statistics, probability, number theory, problem-solving techniques, and applications of mathematics to the liberal arts curriculum. Emphasis is placed on the development of an understanding and life long appreciation for critical thinking and mathematical problem solving. This is a general education mathematics course designed for students majoring in the liberal arts. (FT) AA/AS; CSU.

119 Elementary Statistics
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement Milestone M40 or M50 based on California Title 5 regulations. Students with a Milestone M30 must enroll in MATH 119X (Mathematics 119 and Mathematics 15A learning community). This course covers descriptive and inferential statistics. The descriptive portion analyzes data through graphs, measures of central tendency and dispersion. The inferential statistics portion covers statistical rules to compute basic probability, including binomial, normal, Chi-squares, and T-distributions. This course also covers estimation of population parameters, hypothesis testing, linear regression, correlation and ANOVA. Emphasis is placed on applications of technology, using software packages, for statistical analysis and interpretation of statistical values based on data from disciplines including business, social sciences, psychology, life science, health science and education. This course is intended for transfer students interested in statistical

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analysis. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID MATH 110.

121 Basic Techniques of Applied Calculus I
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

This course examines the study of calculus using numerical, graphical, and analytical methods to analyze calculus problems encountered in real-world applications in business, natural/life sciences, and social sciences. Topics include limits, derivatives, and integrals of algebraic, exponential, and logarithmic functions, curve sketching, optimization, and areas under and between curves and partial derivatives and optimization of multivariable functions. This is the first course in a sequence of mathematics courses for students intending to major in business, economics, or natural and social sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID MATH 140.

122 Basic Techniques of Calculus II
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 121 with a grade of "C" or better, or equivalent.
 This second course in a math sequence covers methods of integration, multivariable functions and optimization problems, differential equations, Taylor series development and application, derivatives and integrals of trigonometric functions, and their usage in solving problems encountered in real-world applications in business, life and social sciences and economics. This course is intended for students majoring in business, natural science, social science and economics. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

141 Precalculus
5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 104 with a grade of "C" or better, or equivalent.
 This course is a study of numerical, analytical, and graphical properties of functions. The course content includes polynomial, rational, irrational, exponential, logarithmic, and trigonometric functions. Additional topics include: inverse functions, complex numbers, polar coordinates, matrices, conic sections, sequences, series and the binomial theorem. This course is designed as a preparation for calculus and is intended for the transfer student planning to

major in mathematics, engineering, economics, or disciplines included in the physical or life sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

150 Calculus with Analytic Geometry I
5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 141 with a grade of "C" or better, or equivalent.
 This course is an introduction to university-level calculus requiring a strong background in algebra and trigonometry. The topics of study include analytic geometry, limits, differentiation and integration of algebraic and transcendental functions, and applications of derivatives and integrals. Emphasis is placed on calculus applications involving motion, optimization, graphing, and applications in the physical and life sciences. This course incorporates the use of technology. Analytical reading and problem solving are strongly emphasized in this course. This course is intended for students majoring in mathematics, computer science, physics, chemistry, engineering, or economics. AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID MATH 210, C-ID MATH 211; C-ID MATH 9005 (MATH 150, MATH 151).

150L Calculus I Laboratory
3 hours lab, 1 unit
Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 141 with a grade of "C" or better, or equivalent.
Corequisite: Mathematics 150.
 This course is a workshop, project-oriented course dealing with exploration and development of the calculus topics introduced in Calculus and Analytic Geometry I. This course directly supports the calculus lectures by having hands-on, collaborative assignments where technology is strongly incorporated throughout all the in-class assignments. Students work individually and in small groups on explorations and applications thus extending the material presented in an introductory, university-level course. Topics including geometric, analytic and numeric applications of limits, derivatives and integrals as well as calculus applications found in the physical and life sciences. This course is intended for all students currently enrolled in Calculus with Analytic Geometry I. (FT) AA/AS; CSU.

151 Calculus with Analytic Geometry II

4 hours lecture, 4 units
Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 150 with a grade of "C" or better, or equivalent.

This is the second course in the calculus and analytic geometry sequence. This course covers more advanced topics in analytic geometry, differentiation and integration of algebraic and transcendental functions, infinite series, Taylor series, and parametric equations. This course also covers a general introduction to the theory and applications of power series, techniques of integration, and functions in polar coordinates, as it serves as a basis for multivariable calculus and differential equations, as well as most upper division courses in mathematics and engineering. This course is intended for the transfer student planning to major in mathematics, computer science, physics, chemistry, engineering or economics. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID MATH 900S (MATH 150, MATH 151).

210A Concepts of Elementary School Mathematics I

3 hours lecture, 3 units
Grade Only

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations. This course is a study of the mathematical concepts needed for teaching elementary school mathematics with emphasis on number and function. This course promotes an appreciation of the importance of logical thinking and applications of mathematics in problem solving and critical thinking. It studies the basic computational skills, but also requires the understanding and explanation of the basic mathematical concepts and the connections between them. This course includes content relevant to national and state curriculum standards for elementary school mathematics. It is designed for students preparing for credentials in elementary education. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

210B Concepts of Elementary School Mathematics II

3 hours lecture, 3 units
Grade Only

Prerequisite: Mathematics 210A with a grade of "C" or better, or equivalent.

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is the second course in a one-year sequence in the study of the mathematical concepts needed for teaching elementary school mathematics with emphasis on geometry, transformational geometry, and measurement. This course also promotes an appreciation of the importance of logical thinking and applications of mathematics in problem solving and critical thinking. It studies the understanding and explanation of the basic mathematical concepts and the connections between them. Analytical reading and problem solving are required for success in this course. It is designed especially for students preparing for credentials in elementary education. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

212 Children's Mathematical Thinking

1 hour lecture, 1 unit
Grade Only

Corequisite: Completion of or concurrent enrollment in Mathematics 210A with a grade of "C" or better, or equivalent.

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course focuses on children's mathematical thinking and includes an in-depth study of place-value, fractions and how children solve mathematical problems. Students observe children and evaluate the problem strategies that are used. This course is intended for students pursuing a Multiple Subject Credential. (FT) AA/AS; CSU.

245 Discrete Mathematics

3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 122 or Mathematics 151, each with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to the theory of discrete mathematics and introduces elementary concepts in logic, set theory, and number theory. The topics covered include propositional and

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Milestone formerly referred to as Skill Level

predicate logic, methods of proof, set theory, Boolean algebra, number theory, equivalence and order relations, and functions. This forms a basis for upper division courses in mathematics and computer science, and is intended for the transfer student planning to major in these disciplines. (FT) AA/AS; CSU; UC.

252 Calculus with Analytic Geometry III 4 hours lecture, 4 units Grade Only

Prerequisite: Mathematics 151 with a grade of "C" or better, or equivalent.

This course includes the algebra and geometry of 2 and 3 dimensional Euclidean vectors, the algebra and calculus of multivariable functions including composition of functions, limits, continuity, partial differentiation, gradients, higher order derivatives, the chain rule, constrained and unconstrained optimization including Lagrange's theorem, multiple integrals, integrals over paths and surfaces, and integral theorems of vector analysis. This course is intended as a general introduction to the theory and applications of multivariable calculus. This course is essential for most upper division courses in mathematics and forms part of the foundation for engineering and physics. The course is intended for the students interested and/or planning to major in mathematics, physics, astronomy, engineering, computer science, physical chemistry, operational research, or economics. (FT) AA/AS; CSU; UC; C-ID MATH 230.

254 Introduction to Linear Algebra 3 hours lecture, 3 units Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 151 with a grade of "C" or better, or equivalent.

This course serves as an introduction to the theory and applications of elementary linear algebra, and is the basis for most upper division courses in mathematics. The topics covered in this course include matrix algebra, Gaussian Elimination, systems of equations, determinants, Euclidean and general vector spaces, linear transformations, orthogonality and inner product spaces, bases of vector spaces, the Change of Basis Theorem, eigenvalues, eigenvectors, the rank and nullity of matrices and introduction to linear transformations. This course is intended for the transfer student planning to major in mathematics, physics, engineering, computer science, operational research,

economics, or other sciences. (FT) AA/AS; CSU; UC; C-ID MATH 250.

255 Differential Equations 3 hours lecture, 3 units Grade Only

Prerequisite: Mathematics 252 and Mathematics 254, each with a grade of "C" or better, or equivalent. This course covers first order and higher order ordinary differential equations and their applications. Topics include linear first order and higher order equations, homogeneous and nonhomogeneous equations with constant or variable coefficients, and systems of ordinary differential equations. Methods used to solve equations include substitution methods, integrating factors, reduction of order, variation of parameters, power series solutions, and Laplace transforms. This course is an introduction to the theory and applications of differential equations and is the basis for many upper division courses in engineering, physics, and mathematics. It is intended for the transfer student planning to major in mathematics, engineering, operational research, physics, or other physical science subjects. (FT) AA/AS; CSU; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Medical Assisting (MEDA)

115 Pathophysiology 3 hours lecture, 3 units Grade Only

Prerequisite: Medical Assisting 55, Medical Assisting 110, or Biology 160 each with a grade of "C" or better, or equivalent.

The course focuses on disease processes in the human body from a systems approach. Analysis of the most common and significant diseases is included. The signs and symptoms, etiology, diagnosis, and treatment of disease are examined along with the appropriate medical terminology.

This course is designed for students in allied health programs, but is also open to those who wish to broaden their medical background or review this information. (FT) AA/AS; CSU.

Music, Commercial (MUSC)

104 Composition Technology
2 hours lecture, 3 hours lab, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Music Commercial 50.

This course is a practical study of the fundamentals of technology used for music composition and notation required to work in a professional recording studio or commercial music environment. Emphasis is placed on rudimentary Musical Instrument Digital Interface (MIDI) sequencing, notation of music scores, and basic keyboarding / MIDI controller skills. Topics include meter, pitch, chords, and scales. This course is intended for students majoring in music production technology. (FT) AA/AS; CSU.

118 Music Entrepreneurship
2 hours lecture, 3 hours lab, 3 units
Grade Only

This course is designed to provide students theoretical and practical applications to build a successful career as a self-employed music artist. Topics range from theoretical, such as goal-setting and building creative discipline, to practical, such as revenue streams, financial planning, and self-ownership. Emphasis is placed on a broad but strong understanding of what is necessary to build a successful life of self-employment in the music industry as well as an education on the specific resources that exist to do so. This course is designed for students interested in music. (FT) AA/AS; CSU.

160 Introduction to Electro-Acoustic Music
2 hours lecture, 3 hours lab, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Music Commercial 84.

This course explores electronic music composition in the digital medium with a primary focus on the creation of works of musical art. This course provides students with the fundamental skills

required to operate a digital audio workstation (DAW) for recording, editing, and mixing of audio and Musical Instrument Digital Interface (MIDI) data. Topics include digital audio, MIDI, signal flow in the professional studio, elastic audio and quantization, automation, signal processing, basic mixing and editing techniques, and audio file formats for delivery. This course is intended for students majoring in music production technology and anyone interested in entry-level employment in the music industry. Students may take industry-based certification exams at the conclusion of the semester. This course is an industry-partner training course. (FT) AA/AS; CSU.

162 Introduction to Recording and Sound Reinforcement
2 hours lecture, 3 hours lab, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Music Commercial 80 or Music 190.

This course introduces the theory and practice of sound recording and live sound reinforcement. Students learn the technical aspects of live sound, the aesthetic aspects of mixing live sound, and microphone placement and mixing strategies to accomplish these goals. This course is intended for students majoring in music production technology and anyone interested in entry-level employment in the music industry. (FT) AA/AS; CSU.

170A Electro-Acoustic Ensemble I
3 hours lab, 1 unit
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for Music Commercial 70.

This course is the first in a series of electro-acoustic ensemble for the study and performance of selected works that involve music technology and commercial music based instruments. Students practice and perform a wide variety of works from different styles/genres as well as original works. Topics include a history of ensemble as well as tone

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production and basic music theory in performance practice. Emphasis is placed on developing fundamental skills in incorporating and operating music technology along with traditional commercial music instruments intended for live and studio based performance. Attendance at rehearsals and performance is required. This course is intended for students majoring in music production technology or for anyone interested in developing techniques for commercial music performance. (FT) AA/AS; CSU; UC.

170B Electro-Acoustic Ensemble II
3 hours lab, 1 unit
Grade Only

Advisory: Music Commercial 170A with a grade of "C" or better, or equivalent.
 This course is the second in a series of electro-acoustic ensemble for the study and performance of selected works that involve music technology and commercial music based instruments. Students practice and perform a wide variety of works from different styles/genres as well as original works. Topics include composing, writing, and arranging as well as improvisation as an accompanist. Emphasis is placed on developing beginning skills in incorporating and operating music technology along with traditional commercial music instruments intended for live and studio based performance. Attendance at rehearsals and performance is required. This course is intended for students majoring in music production technology or for anyone interested in developing techniques for commercial music performance. (FT) AA/AS; CSU; UC.

170C Electro-Acoustic Ensemble III
3 hours lab, 1 unit
Grade Only

Advisory: Music Commercial 170B with a grade of "C" or better, or equivalent.
 This course is the third in a series of electro-acoustic ensemble for the study and performance of selected works that involve music technology and commercial music based instruments. Students practice and perform a wide variety of works from different styles/genres as well as original works. Topics include improvisation as a soloist as well stage presence and live mixing. Emphasis is placed on developing intermediate skills in incorporating and operating music technology along with traditional commercial music instruments intended for live and studio based performance. Attendance at rehearsals and performance is required. This

course is intended for students majoring in music production technology or for anyone interested in developing techniques for commercial music performance. (FT) AA/AS; CSU; UC.

170D Electro-Acoustic Ensemble IV
3 hours lab, 1 unit
Grade Only

Advisory: Music Commercial 170C with a grade of "C" or better, or equivalent.
 This course is the fourth in a series of electro-acoustic ensemble for the study and performance of selected works that involve music technology and commercial music based instruments. Students practice and perform a wide variety of works from different styles/genres as well as original works. Topics include studio session musician skills, leading and conducting an ensemble, troubleshooting live performance technology issues as well as recording a live mix. Emphasis is placed on developing advanced skills in incorporating and operating music technology along with traditional commercial music instruments intended for live and studio based performance. Attendance at rehearsals and performance is required. This course is intended for students majoring in music production technology or for anyone interested in developing techniques for commercial music performance. (FT) AA/AS; CSU; UC.

220A Music Marketing and Promotion I
0.5 hours lecture, 4.5 hours lab, 2 units
Grade Only

This is the first in a series of music marketing and promotion courses. Students are introduced to concepts of budgeting, project management, talent development, and marketing in the music industry as they assist with the production and promotion of original music recordings and live music performances. This course is intended for students majoring in music production technology and anyone interested in entry-level employment in the music industry. (FT) AA/AS; CSU.

220B Music Marketing and Promotion II
0.5 hours lecture, 4.5 hours lab, 2 units
Grade Only

Advisory: Music Commercial 220A with a grade of "C" or better, or equivalent.
 This is the second in a series of music marketing and promotion courses. Students coordinate the production and promotion of original music recordings and live music performances, gaining

hands-on practice with talent scouting, event budgeting, and press release writing. This course is designed for students majoring in Commercial Music and anyone interested in entry-level employment in the music industry. (FT) AA/AS; CSU.

220C Music Marketing and Promotion III
0.5 hours lecture, 4.5 hours lab, 2 units
Grade Only

Advisory: Music Commercial 220B with a grade of "C" or better, or equivalent.

This is the third in a series of music marketing and promotion courses. Students manage a team to create original music recordings and/or produce live music events. Through this process, students learn to create budgets, develop project timelines, and implement event marketing plans. This course is designed for students majoring in Commercial Music and anyone interested in entry-level employment in the music industry. (FT) AA/AS; CSU.

220D Music Marketing and Promotion IV
0.5 hours lecture, 4.5 hours lab, 2 units
Grade Only

Advisory: Music Commercial 220C with a grade of "C" or better, or equivalent.

This is the fourth in a series of music marketing and promotion courses. Students direct a team through the production and promotion of original music recordings and live music performances, learning how to evaluate budgets, timelines, and talent. In addition, they gain experience partnering with recording studios and not-for-profit organizations. This course is designed for students majoring in Commercial Music and anyone interested in entry-level employment in the music industry. (FT) AA/AS; CSU.

252 Sound Design and Digital Audio Post Production
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Music Commercial 160 and Music Commercial 162, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Radio and Television 152, Digital Media Production 152, or Music Commercial 152.

This is an advanced course in audio post-production and synchronization with visual image for video, multimedia, and film. Students use a Digital Audio Workstation (DAW) to produce original audio tracks.

This course is intended for students majoring in Commercial Music. (FT) AA/AS; CSU.

260 Electro-Acoustic Music Composition
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Music Commercial 160 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Music Commercial 95.

This course explores electronic music composition in the digital medium. Topics include sound sampling, musique concrete, multiple types of synthesis, physics of sound, and digital audio theory. Emphasis is on application of techniques and theoretical knowledge to produce original musical compositions. Diversity of style and approach is encouraged. This course is designed for students majoring in music production technology and anyone interested in entry-level employment in the music industry. (FT) AA/AS; CSU.

262 Intermediate Recording and Sound Reinforcement
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Music Commercial 160 with a grade of "C" or better, or equivalent and Music Commercial 162, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Music Commercial 82.

An intermediate-level exploration of the theory and practice of sound recording and live sound reinforcement. Students learn the technical aspects of live sound, the aesthetic aspects of mixing live sound, and microphone placement and mixing strategies to accomplish these goals. This course is intended for students majoring in music production technology and anyone interested in entry-level employment in the music industry. (FT) AA/AS; CSU.

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290 Independent Study

**3–9 hours other, 1–3 units
Pass/No Pass**

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment. This course offers students the opportunity to pursue special interests in music. Projects may include extended research on music subjects addressed in scheduled music classes, as well as topics outside the music curriculum. In this course students have a written contract with their instructor for activities, such as written works, compositions, presentations, performances, or original projects. An Independent Study has to be arranged with, approved, and monitored by a member of the music faculty. AA/AS; CSU.

Music (MUSI)

100 Introduction to Music

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is designed to develop aural and analytical musical skills. Emphasis is placed on conceptual, contextual, and stylistic elements of music from various periods and cultures, and encompassing a range of genres and styles. This course is designed to support students in all majors who are interested in satisfying the general education requirements for Arts and Humanities. (FT) AA/AS; CSU; UC; C-ID MUS 100.

103 History of Rock Music

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course surveys the origins and development of Rock music from the 1940s to the present including its roots and related genres. The course focuses on the evolution of different styles within the Rock genre as well as the social, political, economic, and cultural contexts of Rock music. This course is intended for all students interested in the history of Rock music. (FT) AA/AS; CSU; UC.

108 The Business of Music

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Completion of or concurrent enrollment in English 101 with a grade of “C” or better, or equivalent.

This course is a comprehensive survey of the music business. Course content emphasizes the various areas of the music business, the functions of each area and the relationships between the areas. Topics include songwriting; music publishing; copyrighting; music licensing; unions and guilds; agents and managers; artists and management; the record industry; artists’ recording contracts; studios and engineers; and music in radio, television and advertising. This course is intended for students majoring in music or anyone interested in the music industry. (FT) AA/AS; CSU.

109 World Music

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This music survey course explores the music cultures of Asia; the Middle East; Africa; Central and South America; the Caribbean; and other areas with resident populations in San Diego. Musical practices and perspectives from several music cultures are studied with an emphasis on understanding and appreciation from non-ethnocentric viewpoints. Listening perception is developed through lectures and multimedia presentations. This course is intended for students majoring in music or anyone interested in music and culture. (FT) AA/AS; CSU; UC.

110 Music for Elementary School Teachers

**2.5 hours lecture, 1.5 hours lab, 3 units
Grade Only**

This course prepares students to teach music as part of the curriculum in the elementary school classroom, the preschool, or day-care program. Students develop an understanding of musical concepts primarily by singing and playing an instrument, and practice using lesson plans for teaching these concepts to children. (FT) AA/AS; CSU; UC.

111 Jazz History

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

This course is a survey of the history and development of Jazz in the United States. Emphasis is placed on the origins of Jazz, the variety of styles that developed throughout the twentieth and twenty-first centuries, current trends, and outstanding performers and composers. This course is intended for all students interested in the history of Jazz. (FT) AA/AS; CSU; UC.

124A Piano Class I**3 hours lab, 1 unit****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Music 115A or Music 116A.

This course explores the process of making music at the piano. The focus of the course is to provide a musical experience for students to continue a life-long pursuit of self-expression. This course also emphasizes developing fundamental techniques needed to play the piano. The concept of music theory is also included. Students learn piano techniques and applicable music theory by playing music on the piano through simple solo and ensemble pieces. This course is designed for all students interested in learning to play the piano. (FT) AA/AS; CSU; UC; C-ID MUS 170.

124B Piano Class II**3 hours lab, 1 unit****Letter Grade or Pass/No Pass Option**

Prerequisite: Music 124A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Music 115B or Music 116B.

This course further explores the process of making music at the piano as the second semester of piano studies. Students learn piano techniques and applicable music theory by playing music on the piano with additional sight-reading and intermediate piano solo and ensemble music. The course is designed for all students who are interested in further expanding piano studies. (FT) AA/AS; CSU; UC; C-ID MUS 171.

134A Voice Class I**3 hours lab, 1 unit****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for Music 120A or Music 120.

This course is an opportunity to explore your singing voice. To become a more expressive singer, a variety of songs are used for developing the range, volume, and tone color of your solo voice. A goal of the course is to provide a musical experience that inspires students to continue singing as a source of self-expression and growth. (FT) AA/AS; CSU; UC.

137 Singing Plus**1.5 hours lecture, 1.5 hours lab, 2 units****Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Music 130A.

This course is an introduction to singing in ensembles. Emphasis is placed on developing basic vocal, aural and music-reading skills. Students rehearse and perform solo as well as in concert with others. This course is intended for both music and non-music majors. (FT) AA/AS; CSU; UC.

148A Music Theory I**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Music 150A with a grade of "C" or better, or equivalent.

Advisory: Concurrent enrollment in Music 268A.

Limitation on Enrollment: This course is not open to students with previous credit for Music 158A.

This course is a study of music, including structural, historical and stylistic analysis of music of Western classical music, World music, jazz, and popular music. The class will discuss the cultural, social and technical significance of the musical literature, examining rhythms, intervals, chords, cadences, melodies, phrases, notes and scales. Students will develop four-part writing skills using diatonic triads and seventh chords, and learn how to read and compose with figured bass, lead sheet chord symbols and standard musical notation. The history of notation and practice will be discussed as students develop skills in notation software and handwritten notation. This course is intended for music majors. (FT) AA/AS; CSU; UC; C-ID MUS 120.

148B Music Theory II**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Music 148A with a grade of "C" or better, or equivalent.

Advisory: Concurrent enrollment in Music 268B.

Limitation on Enrollment: This course is not open to students with previous credit for Music 258B.

This course series continues in its study of diatonic music including the structural, historical and stylistic

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analysis of music of Western classical music, World music, jazz, and popular music. The class will discuss the cultural, social and technical significance of the musical literature, examining how melody, structure, harmony, and chord progressions, have an impact on the listener. The course will include analysis of Baroque and Classical pieces of music and an examination of large-scale events and form. The course will also include identifying, creating, and composing with the modes of the major scale. Students will continue to develop four-part writing skills using triads and seventh chords, non-harmonic tones, suspensions, retardations, figured bass, 6/4 chords, modulations and tonicizations. The history of notation and practice will be discussed as students develop skills in notation software and handwritten notation. This course is intended for music majors. (FT) AA/AS; CSU; UC; C-ID MUS 130.

150A Basic Musicianship

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is the study and practice of musical literacy. Emphasis is placed on the development of perceptions in sight and sound as related to the symbols of rhythmic, melodic, and harmonic notation. Topics include skill development in notating notes, intervals, scales, key signatures, rhythms, and chords. Students also identify terms used to indicate navigation, tempo, and dynamics. This course is designed for music majors and musicians. (FT) AA/AS; CSU; UC; C-ID MUS 110.

190 Introduction to Music Technology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: Completion of or concurrent enrollment in Music 150A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Music Commercial 80 or Music Commercial 162.

This course is a study of music/audio as it applies to computer music/audio applications, sequencing Musical Instrument Digital Interface (MIDI), hard disk recording, and recording. Students design and create music/audio projects using microphones, recorders, mixing boards, synthesizers, and samplers. This course is designed for all students interested in music and audio technology. (FT) AA/AS; CSU.

202 Computer Music

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Music 190 with a grade of "C" or better, or equivalent.

This course is a study of the application of contemporary digital technology to the practice of music / audio applications. Emphasis in this course is on acquisition of computer skills to access and manipulate musical data via MIDI (musical instrument digital interface), hard disk audio files and other digital formats. These skills allow students to digitally sample sounds, control synthesizers and samplers, access and alter audio files, sequence music, transcribe and print musical scores and conceive new techniques for computer music. This course is designed for students who are interested in continuing their education in the recording studio. (FT) AA/AS; CSU.

204 Audio System Design and Maintenance

2 hours lecture, 3 hours lab, 3 units

Grade Only

Prerequisite: Music 190 with a grade of "C" or better, or equivalent.

In this course students learn to design, operate, and maintain audio systems. Lessons and assignments target commercial and residential audio systems and their design, function, installation, operation, and maintenance. This course is intended for students majoring in Audio Production and Engineering or anyone interested in the operation and maintenance of audio systems. (FT) AA/AS; CSU.

268A Ear Training I

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Prerequisite: Music 150A with a grade of "C" or better, or equivalent.

Advisory: Music 148A with a grade of "C" or better, or equivalent.

The course is designed to facilitate perception, performance, and identification of melodic, harmonic, and rhythmic patterns in music. This course consists of sight singing scales, melodies & rhythms, notating melodies, harmonies & rhythms, and identifying chords & intervals. The emphasis is on the development of basic skills in sight singing and dictation: the sight singing and notating of short diatonic melodies containing seconds, thirds, fourths, fifths & octaves, the identification of major, minor, augmented & diminished triads in root position, harmonic dictation of primary triads in

major keys, and rhythmic dictation with duple, triple & quadruple subdivisions of the beat. This course is designed for the music majors and students interested in enhancing technical knowledge and skills in music. (FT) AA/AS; CSU; UC; C-ID MUS 125.

268B Ear Training II

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Prerequisite: Music 268A with a grade of "C" or better, or equivalent.

This course is the second of a four-course sequence in ear training. Emphasis is placed on continued development of skill in sight singing major and minor melodies which contain seconds, thirds, fourths, fifths, sixths, sevenths, octaves and the tritone; melodic dictation containing triadic arpeggiations; harmonic identification of all diatonic triads in root position and inversions and in major and minor keys; rhythmic dictation with duple, triple, and quadruple subdivisions of the beat in simple and compound meters; notation of two-part and four-part dictation; and identification of errors in melodic phrases. This course is designed for the student pursuing music as a major or for the student interested in enhancing technical knowledge and skills. (FT) AA/AS; CSU; UC; C-ID MUS 135.

290 Independent Study

3–9 hours other, 1–3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course affords students the opportunity to pursue special interests in music. Projects may include extended research on music subjects addressed in scheduled music classes as well as topics outside the music curriculum. The culmination of the course may include a written paper, presentation or performance. An Independent Study has to be arranged with, approved and monitored by a member of the music faculty. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Nursing Education (NRSE)

The hours listed in the catalog are based on a 16 week session. Nursing courses are scheduled in 8 week blocks, doubling weekly lecture and lab hours listed.

92 Nursing Student Success

.5 hours lecture, 1.5 hours lab, 1 unit
Pass/No Pass

Advisory: English 101 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Nursing Education 265B. Special Admission - must be admitted to program.

This course is designed to provide the incoming nursing student with an introduction to the study of nursing. The student participates in eight four-hour sessions to explore and become familiar with the expectations and realities of being a nursing student. Utilizing a variety of topics, activities, examinations, and general information. This course is designed to assist the student to develop strategies to be successful in the Nursing Education Program. Emphasis is placed on the student's responsibilities in identifying personal learning styles that are most effective and a personal study plan to facilitate mastery of this rigorous and challenging program. The philosophy of the Nursing Education Program and the role of the student in developing accountability, integrity, and meeting the standards of academic and clinical conduct are also discussed (FT) Not applicable to the Associate Degree.

108 Nursing Skills Laboratory II

3 hours lab, 1 unit
Pass/No Pass

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is intended for second semester students pursuing an Associate of Science Degree in Nursing. It provides students an additional opportunity for practice and mastery of basic nursing skills. There is

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opportunity to apply related theoretical concepts with supervised practice of basic nursing skills that are concurrently presented in the second semester of the Nursing Education Program. AA/AS; CSU.

121 Nursing Skills Laboratory I

**3 hours lab, 1 unit
Pass/No Pass**

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is intended for first semester students pursuing an Associate of Science Degree in Nursing. It provides students an additional opportunity for practice and mastery of basic patient care skills. There is opportunity to apply related theoretical concepts with supervised practice of introductory patient care skills that are concurrently presented in the first semester of the Nursing Education Program. AA/AS; CSU.

140 Foundations of Nursing

**2 hours lecture, 7.5 hours lab, 4.5 units
Grade Only**

Prerequisite: Biology 205, Biology 230, and Biology 235, each with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course provides an introduction to nursing and the roles of the associate degree nurse, the nursing process, critical thinking, knowledge, and foundational skills necessary for beginning-level assessment and interventions (procedures) for adults. It also introduces the learner to the philosophy and conceptual framework of the nursing program. The emphasis is on meeting the client's basic needs throughout the life cycle. Introductory skills of client care are practiced in the skills and simulation laboratories with supervised clinical experiences in a variety of health settings. This course is intended for students enrolled in the first semester of the Associate of Science Degree in the Nursing. (FT) AA/AS; CSU.

141 Pharmacology for Nursing

**1 hour lecture, 1 unit
Grade Only**

Corequisite: Completion of or concurrent enrollment in Nursing Education 140 with a grade of "C" or better, or equivalent.

Advisory: English 101 with a grade of "C" or better, or equivalent. Special Admission - must be admitted to program.

This course introduces basic concepts of pharmacology. Legal, ethical, psychological, cultural, and age-specific aspects of drug therapy are presented. A nursing process approach to the principles of medication administration and dosage calculation is included. This course is intended for students enrolled in the first semester of the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

142 Medical Surgical Nursing I

**2 hours lecture, 7.5 hours lab, 4.5 units
Grade Only**

Prerequisite: Nursing Education 140 and Nursing Education 141, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is an introduction to nursing concepts and practices as they relate to the young adult through geriatric adult in the medical surgical environment. Through utilization of the nursing process, the student begins to recognize alterations in physical and physiological functioning or illness and formulates age-appropriate nursing interventions. Topics include selected psychomotor skills associated with the basic human needs, medication administration, and intravenous therapy, are studied and practiced. This course is intended for students enrolled in the first semester of the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

143 Pharmacology for Nursing II

**1 hour lecture, 1 unit
Pass/No Pass**

Corequisite: Completion of or concurrent enrollment in Nursing Education 142 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course provides supplementary instruction on pharmacologic intervention for medical surgical disorders. Emphasis is placed on drug categories and medications used in medical surgical nursing care environments. A nursing process approach to the principles of medication administration and dosage calculation is included. This course is intended for students enrolled in the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

144 Medical Surgical Nursing II
2 hours lecture, 7.5 hours lab, 4.5 units
Grade Only

Prerequisite: Nursing Education 142 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course develops the first year nursing student's knowledge and skills as they relate to the adult non-critical moderately complex medical-surgical client. Through utilization of the nursing process, the student recognizes alterations in functioning or illness and formulates age-appropriate nursing interventions. Psychomotor skills associated with moderately complex needs, medication administration and intravenous therapy are studied and practiced. The impact of multiple nursing diagnoses on client outcomes is introduced. This course is intended for nursing students enrolled in the second semester of the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

145 Pharmacology for Nursing III
1 hour lecture, 1 unit
Pass/No Pass

Corequisite: Completion of or concurrent enrollment in Nursing Education 144 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course emphasizes drug categories and medications used in acute medical/surgical environments. A nursing process approach to the principles of medication administration and dosage calculation is included. This course is intended for students enrolled in the Associate of Science Degree in Nursing. AA/AS; CSU.

146 Maternal-Child Health Nursing
2.25 hours lecture, 6.75 hours lab, 4.5 units
Grade Only

Prerequisite: Nursing Education 142 with a grade of "C" or better, or equivalent.

Advisory: Nursing Education 140 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course focuses on integration and application of the nursing process as it relates to the nursing care of the childbearing family, children, and their families. Emphasis is on the concepts and skills related to age-appropriate, family centered care. Clinical experiences provides opportunities for

students to participate in therapeutic activities in a variety of pediatric and obstetrical settings. This course is intended for nursing students enrolled in the second semester of the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

147 Pharmacology for Nursing IV
1 hour lecture, 1 unit
Pass/No Pass

Corequisite: Completion of or concurrent enrollment in Nursing Education 146 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course emphasizes drug categories and medications used in reproductive health, obstetrics, and pediatrics. A nursing process approach to the principles of medication administration and dosage calculation is included. This course is intended for students enrolled in the Associate of Science Degree in Nursing. AA/AS; CSU.

206 Nursing Skills Laboratory III
3 hours lab, 1 unit
Pass/No Pass

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is intended for third semester students pursuing an Associate of Science Degree in Nursing. It provides students an additional opportunity for practice and mastery of intermediate nursing care skills. There is opportunity to apply related theoretical concepts with supervised practice of intermediate nursing care skills that are concurrently presented in the third semester of the Nursing Education Program. AA/AS; CSU.

208 Nursing Skills Laboratory IV
3 hours lab, 1 unit
Pass/No Pass

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is intended for fourth semester students pursuing an Associate of Science Degree in Nursing. It provides students an additional opportunity for

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 Milestone formerly referred to as Skill Level

practice and mastery of advanced nursing skills required for the care of the complex patient. There is opportunity to apply advanced theoretical concepts to supervised practice of nursing skills needed for the care of the complex patient. AA/AS; CSU.

235 LVN to RN Transition

**1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only**

Prerequisite: Biology 205, Biology 230, and Biology 235, each with a grade of "C" or better, or equivalent.
Limitation on Enrollment: Special Admission - must be admitted to program.

This course focuses on the theory and application of the concepts of physical assessment, nursing process, critical thinking, disease processes and nursing competencies in the professional roles of clinician, teacher, leader, and advocate. Emphasis is on assisting the Licensed Vocational Nurse (LVN) to integrate into the Associate Degree Nursing. This course is offered to students accepted into the LVN to Registered Nurse (RN) step up program. (FT) AA/AS; CSU.

240 Medical/Surgical Nursing III

**2 hours lecture, 7.5 hours lab, 4.5 units
Grade Only**

Prerequisite: Nursing Education 144, Nursing Education 146, and Nursing Education 235, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course assists the learner to synthesize and correlate nursing knowledge and skills in providing care to multiple clients who have complex, multi-system illnesses. Focus is for the learner to predict client needs and priorities, and evaluate outcomes of care. Associated psychomotor skills are integrated and practiced. This course is offered to students enrolled in the second year of the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

241 Pharmacology for Nursing V

**1 hour lecture, 1 unit
Pass/No Pass**

Corequisite: Completion of or concurrent enrollment in Nursing Education 240 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course provides supplementary instruction on pharmacologic intervention for medical-surgical disorders. Emphasis is placed on drug categories

and medications introduced in advanced medical-surgical nursing care environments. A nursing process approach to the principles of medication administration and dosage calculation is included. This course is offered to students enrolled in the Associate of Science Degree in Nursing. AA/AS; CSU.

242 Mental Health & Gerontological Nursing

**2.25 hours lecture, 6.75 hours lab, 4.5 units
Grade Only**

Prerequisite: Nursing Education 144, Nursing Education 146, or Nursing Education 235, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course is an introduction to mental health/psychiatric and gerontological nursing using the nursing process to promote psychosocial and physiological integrity. Emphasis is on therapeutic interaction and communication, bio-psychosocial rehabilitation, and therapeutic use of self. Clinical experiences provide opportunities for students to participate in therapeutic activities in a variety of settings. The student also explores interventions to increase the client's functional abilities with an emphasis on lifestyle and physical changes. This course is offered to students enrolled in the second year of the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

243 Pharmacology for Nursing VI

**1 hour lecture, 1 unit
Pass/No Pass**

Corequisite: Completion of or concurrent enrollment in Nursing Education 242 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course provides supplementary instruction on pharmacologic intervention in mental health and gerontological nursing. Emphasis is placed on drug categories and medications used in psychiatric/mental health and gerontological environments. A nursing process approach to the principles of medication administration and dosage calculation is included. This course is offered to students enrolled in the Associate of Science Degree in Nursing program. AA/AS; CSU.

244 Medical Surgical Nursing IV

2.25 hours lecture, 6.75 hours lab, 4.5 units
Grade Only

Prerequisite: Nursing Education 240, and Nursing Education 242, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course focuses on the advanced application of the nursing process in the care of critically ill adult and geriatric clients. The student organizes and discriminates data to establish priorities of care. Correlated clinical experiences emphasize the refinement of clinical decision-making, psychomotor skills, and management of client care in professional nursing practice. This course is offered to students in the final semester of the Associate of Science Degree in Nursing program. (FT) AA/AS; CSU.

245 Pharmacology for Nursing VII

1 hour lecture, 1 unit
Pass/No Pass

Corequisite: Completion of or concurrent enrollment in Nursing Education 244 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course provides supplementary instruction on pharmacologic intervention for complex medical surgical disorders. Emphasis is placed on drug categories and medications introduced in complex medical surgical nursing care environments. A nursing process approach to the principles of medication administration and dosage calculation is included. This course is offered to students enrolled in the Associate of Science Degree in Nursing. AA/AS; CSU.

246 Leadership in Nursing

2.25 hours lecture, 6.75 hours lab, 4.5 units
Grade Only

Prerequisite: Nursing Education 240 and Nursing Education 242, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This course focuses on the transition from student to staff nurse, emphasizing the responsibilities of planning, organizing, directing, and coordinating client care. Principles of leadership, delegation, time management, decision-making, collegial communication, group dynamics, conflict resolution, and change are included. The clinical experience

requires the application of all previously learned concepts and skills. Acute care, long-term care, or community settings are utilized. This course is offered to students in the final semester of the Associate of Science Degree in Nursing. (FT) AA/AS; CSU.

270 Occupational Work Experience in Nursing Education

54–216 hours other, 1–4 units
Grade Only

Prerequisite: Nursing Education 144 and Nursing Education 146, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Special Admission - must be admitted to program.

This is a work experience course authorized by the Board of Registered Nursing. Students must be employed by or volunteer at a clinical site with which the nursing education program has a current affiliation agreement. The clinical site supports the objectives of the course and provides direct supervision of students through staff nurse mentors. Students apply previously learned nursing theory and clinical skills to perform client care. Students must be in good standing to enroll in this course. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. (FT) AA/AS; CSU.

290 Independent Study

3–9 hours other, 1–3 units
Pass/No Pass

Limitation on Enrollment: Special Admission - must be admitted to program. Obtain Permission Number from Instructor.

This course provides students with an opportunity for additional academic and/or clinical experience in a particular area of nursing. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction

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(296), *Service Learning* (277), or *Work Experience* (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Nutrition (NUTR)

150 Nutrition

**3 hours lecture, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a study of the scientific concepts of nutrition relating to the functioning of nutrients within the human body. Emphasis is placed on nutritional needs throughout the life cycle, food source of nutrients, and current nutritional issues. Students utilize computer technology to analyze dietary intake and evaluate nutritional status. Included is a personal dietary analysis indicating nutritional issues. Students operated computer assisted program available. This course is intended for students majoring in nutrition and all students interested in the science of nutrition. (FT) AA/AS; CSU; UC; C-ID NUTR 110.

153 Cultural Foods

**3 hours lecture, 3 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for Culinary Arts/ Culinary Management 150.

This course examines the regional, ethnic, cultural, religious, historical and social influences on food patterns and cuisine, as well as how food is viewed as an expression of cultural diversity. Traditional foods of geographic areas and cultures, geographic factors in food availability, global food issues, dietary habits, religious influences and an overview of nutritional problems of ethnic groups are discussed and assessed. Connection is drawn between major historical events and how and why these events affected and defined the culinary traditions of different societies. Also presented are nutrition consequences of ethnic food choices, sanitation and safety practices, and applications of food and nutrition services. This course is for students interested in a career in nutrition, dietary service supervisor certificate, culinary, hospitality

management, and those with an interest in ethnic cuisine. (FT) AA/AS; CSU; UC.

170 Nutrition and Fitness

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is a practical study of sports and nutrition. Emphasis is placed on the role of nutrition and enhanced performance. Students evaluate their nutritional needs during various stages of exercise. Topics include carbohydrate loading, use of supplements, determination of body composition. This course is intended for nutrition majors, athletes and all students interested in health and fitness. (FT) AA/AS; CSU.

Peace Studies (PEAC)

101 Introduction to Peace Studies

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course provides an overview of the field of peace studies and offers an in-depth look into theories related to peace, conflict studies and nonviolence. Students gain an understanding of the various tools and processes that are used internationally in working towards a more equitable, just and peaceful world. Contemporary case studies are explored offering students an interdisciplinary approach to the field in order to address the four main pillars of the Peace Studies program which are human rights, conflict studies, peace processes and the concept of justice in relation to peace. (FT) AA/AS; CSU; UC.

Personal Growth (PERG)

31 Career Planning

2 hours lecture, 2 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Personal Growth 30.

This course is designed for students who are interested in making career choices. Topics include career exploration through self-assessment in

values, personality, interests, and skills. Students learn decision-making strategies as they apply to educational planning and career development. (FT) Not applicable to the Associate Degree.

110 Introduction to College

1.5 hours lecture, 1.5 units

Letter Grade or Pass/No Pass Option

This course introduces the knowledge and skills necessary to survive and thrive during the first year in college. Students examine higher education structures, the opportunities and resources available, and the requirements to successfully complete a certificate, degree and transfer. Emphasis is placed on the transition to college learning and college life, self-reflection and self-advocacy, goal setting, academic policies, major selection and educational planning. Students develop and apply critical analysis skills, information literacy, and successful attitudes and behaviors in joining a college community. This course is intended for first time and re-entry college students. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

120 College Success and Lifelong Learning

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Personal Growth 127.

This course teaches success strategies to enhance academic and lifelong learning skills. Students explore topics such as discovering self-motivation, accepting personal responsibility, mastering self-management, employing interdependence, gaining self-awareness, goal setting, decision-making strategies, critical and creative thinking, personal health topics, interpersonal communication, developing emotional intelligence, and learning and personality theories, as well as other techniques for maximizing their abilities to succeed as lifelong learners. Students apply these topics as they relate to their personal and professional self-development and to the discovery of many new options for improving all aspects of their lives. This course is intended for new college students or those seeking to develop their academic and lifelong learning skills. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

130 Career – Life Planning

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

This course is designed for students interested in self-exploration, career transitions, and career-life planning in order to achieve success in a diverse society. Various assessments are utilized through a systematic approach to career development by examining values, interests, skills, and personality types. Other topics include life roles, personal self-management, decision making, and goal setting throughout the lifespan. This course is intended for students who are considering a career change or are undecided about their future career field or college major. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

140 Life Skills and Personal Adjustment

1 - 3 hours lecture, 1-3 units

Letter Grade or Pass/No Pass Option

In this course students develop their emotional, social, educational, and professional life skills. It is a practical study of the principles and application of strategies that assist in the development of coping and life skills. Topics include self-esteem and compassion, self-discipline, self-responsibility, self-assertion, and living a consciously balanced life in pursuit of defined educational, career, and life goals. This course is intended for students beginning college or anyone seeking to balance educational, career, and life goals. (FT) AA/AS; CSU.

160 Stress Management & Well-Being in the Modern World

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English Language Acquisition 35 with a grade of "C" or better, or equivalent.

This course is an opportunity to explore, assess, and evaluate stress management and holistic well-being across the lifespan. The course explores the mind-body relationship (psychophysiology) of stress, stressors across the lifespan, coping skills, and interventions. Emphasis is placed on managing stress and anxiety in the modern world. Topics

(FT) = A field trip may be required for this course.

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include well-being in relation to career, physical and mental health, finances, relationships, and community connection. This course is designed for students seeking help with stress management, holistic well-being, and life balance. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Philosophy (PHIL)

100 Logic and Critical Thinking

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent. This course explores the relationship of communications and critical thinking with a focus on good reasoning and impediments to its mastery. It emphasizes the development of skills in logical analysis including familiarity with the more common fallacies. This course is designed for students learning to apply principles of critical thinking to the practical problems of everyday life. (FT) AA/AS; CSU; UC.

101 Symbolic Logic

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent. This course is a study of the elements of symbolic logic, sentential calculus and quantification theory. Topics include identity, definite descriptions, natural deduction and structure of language. This course is intended for philosophy majors and students pursuing studies in computer science. (FT) AA/AS; CSU; UC; C-ID PHIL 210.

102A Introduction to Philosophy: Reality and Knowledge

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent. This course is an introductory study of the aims, methods, types and problems of philosophy and philosophical inquiry. Emphasis is placed on the nature of reality and knowledge. Materials for this survey of philosophy may draw from classical and contemporary thinkers. Students are encouraged to articulate, analyze, and evaluate their own beliefs/positions in the context of meaningful philosophical inquiry. This course is intended for anyone concerned with human existence and humanity's place in the universe. (FT) AA/AS; CSU; UC; C-ID PHIL 100.

102B Introduction to Philosophy: Values

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent. This course provides an introductory study of the aims, methods, types, and problems of philosophy focusing on values and their place in an individual's daily life. Materials for this survey may be drawn from classical and contemporary thinkers. Students are encouraged to articulate, analyze, and evaluate their own beliefs/positions in the context of meaningful philosophical inquiry regarding value theory. This course is for anyone interested in the origin and justification of values and their application to everyday life. (FT) AA/AS; CSU; UC; C-ID PHIL 120.

103 Historical Introduction To Philosophy

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent. This course is an introduction to the issues and problems exemplified in the process of meaningful activity in Western philosophy from the pre-Socratics to the present. Students in this course survey the major philosophers in their historical contexts. Materials may be drawn from classical and contemporary thinkers. Students are encouraged to engage in independent research, analysis and formulation. This course is intended for students pursuing studies in History and Humanities, and anyone interested in the history of philosophy. (FT) AA/AS; CSU; UC.

104A History Of Western Philosophy: Ancient to Medieval**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is an introduction to the issues and problems exemplified in the process of meaningful philosophical activity related to the history of western philosophy from the pre-Socratics to the close of the Medieval age. Students in this course survey representative theories and philosophical reflections related to the history of early western philosophy. Students are encouraged to engage in independent research, analysis and formulation. This course is intended for students pursuing studies in History and Humanities, and anyone interested in the history of western philosophy. (FT) AA/AS; CSU; UC.

104B History of Western Philosophy: Modern to Contemporary**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is an introduction to the issues and problems exemplified in the process of meaningful philosophical activity related to the history of western philosophy from the Modern period through the 20th Century. Students in this course survey representative theories and philosophical reflections related to the history of philosophy from the Modern to Contemporary periods. Students are encouraged to engage in independent research, analysis and formulation. This course is intended for students pursuing studies in History and Humanities, and anyone interested in the history of western philosophy. (FT) AA/AS; CSU; UC.

105 Contemporary Philosophy**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course explores the issues and problems associated with philosophy in the 20th and 21st centuries. Emphasis is placed on the representative thinkers of the modern and post-modern eras. Students are encouraged to engage in independent research, analysis and formulation. This course is designed for students interested in contemporary society and current events. (FT) AA/AS; CSU; UC.

106 Asian Philosophy**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course explores issues in the philosophical study of Asian philosophy, including questions relating to the nature of the universe, the status and meaning of humankind, and the qualities characterizing the good life. This course may be of special interest to students pursuing Pacific Rim or International Studies. (FT) AA/AS; CSU; UC.

107 Reflections on Human Nature**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is an introductory study of the issues and problems exemplified in the process of meaningful philosophical activity relating to the topic of human nature. Students in this course survey representative theories and philosophical reflections relating to the notions of human nature, the individual person, and human characteristics in general. Material for this survey may be drawn from classical and contemporary thinkers or scientific and religious orientations. Students are encouraged to engage in independent research, analysis and formulation. This course is intended for students pursuing studies in behavioral and/or social sciences. (FT) AA/AS; CSU; UC.

108 Perspectives on Human Nature and Society**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is an introduction to the issues and problems exemplified in the process of meaningful philosophical activity relating to the topics of human nature and human societal configurations. Students in this course survey representative theories and philosophical reflections related to the notions of

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human nature and human societal configurations such as the nature of society, the state, and government, with an emphasis on experiential elements of meaningful human existence, and notions of ideal society. Students are encouraged to engage in independent research, analysis and formulation. This course is intended for students pursuing studies in behavioral, social or political science, and anyone interested in philosophy of human nature. (FT) AA/AS; CSU; UC.

109 Issues in Social Philosophy

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course is an introduction to the issues and problems exemplified in the process of meaningful philosophical activity related to social philosophy. Students in this course survey representative theories and philosophical reflections related to the notions of social ethics and concepts in social philosophy such as types of government, the issues of sovereignty, natural law and natural rights, the philosophy of law, and issues of justice. Students are encouraged to engage in independent research, analysis and formulation. This course is intended for students pursuing studies in pre-law, and/or political, behavioral or social sciences, and anyone interested in social philosophy. (FT) AA/AS; CSU; UC.

110 Philosophy of Religion

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course explores issues associated with the philosophical understanding of religious phenomena and belief. It analyzes philosophical arguments relating to religious beliefs and includes discussions of Western as well as non-Western belief systems. This course may be of interest to students pursuing religious and cultural studies. (FT) AA/AS; CSU; UC.

111 Philosophy In Literature and Other Fiction

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course is an introduction to the issues and problems exemplified in the process of meaningful

philosophical activity related to philosophy in literature and fiction in general. Students in this course survey representative theories and philosophical reflections related to the philosophical issues and themes in selected classical and/or contemporary literature and other fiction such as the nature of reality, the notion of the self, the issue of choice and determinism, the problem of good and evil, and the characteristics of the good life. Students are encouraged to engage in independent research, analysis and formulation. This course is intended for students pursuing studies in literature and media theory, the Behavioral and/or Social Sciences, and anyone interested in philosophy in fiction. (FT) AA/AS; CSU; UC.

125 Philosophy of Women

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course is an introduction to the issues and problems exemplified in the process of meaningful philosophical activity related to philosophy of women. Students in this course survey representative theories and philosophical reflections related to philosophy of women such as concepts of womanhood and feminism as they have found expression in mythic, classic, medieval and major modern philosophical traditions. Students are encouraged to engage in independent research, analysis and formulation. The course is intended for students pursuing women’s studies and/or political, behavioral or social sciences, and anyone interested in philosophy of women. (FT) AA/AS; CSU; UC.

126 Introduction to Philosophy of Contemporary Gender Issues

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of “C” or better, or equivalent.

This course provides an introduction to the concepts of gender and gender relations for the student interested in the development of contemporary gender issues as they relate to philosophy. The images, roles, and beliefs about gender and gender relations as they vary across cultures will be explored with respect to their impact in our everyday lives and the larger societies within which we live. This course is intended for students pursuing gender studies or women’s studies. (FT) AA/AS; CSU; UC.

130 Philosophy of Art and Music**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course employs philosophical methods to explore the concepts, principles, and criteria used in the creation and evaluation of art and music. In addition to students interested in philosophy, this course is designed for any student seeking to gain a better understanding of why we appreciate art and music and how we develop standards for evaluating them. A variety of arts may be discussed including painting, sculpture, architecture, design, music, dance, theatre, and literature. (FT) AA/AS; CSU; UC.

131 Environmental Ethics**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 or English 105 and Philosophy 100, each with a grade of "C" or better, or equivalent.

This course allows students to gain an understanding of the field of moral philosophy as it pertains to environmental issues. Ethical theories are analyzed through application to issues such as: population growth, future generations, biodiversity, animal rights, pollution, energy use and consumption. This course is intended for students interested in Sustainability, Environmental Science, Philosophy, Biology, Sociology, Geology, Ecology, and Peace Studies. (FT) AA/AS; CSU; UC.

205 Critical Thinking and Writing in Philosophy**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Prerequisite: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This critical thinking and writing seminar in Philosophy is designed to enhance the student's critical thinking, writing, and research skills in preparation for upper division academic activity. Issues addressed in this class may involve various areas of human experience and aspiration: metaphysical, cosmological, scientific, political, ethical, aesthetic, and religious. Together with the application of basic principles of deduction and induction, special attention is given to identifying and avoiding fallacies in reasoning, and to techniques and aids to research, reasoning, and writing. This course is designed for students who want to hone their writing and critical thinking skills in Philosophy. (FT) AA/AS; CSU; UC.

290 Independent Study**3–9 hours other, 1-3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project or problem, or learning activities in the field of philosophy. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Photography (PHOT)**100 Introduction to Black & White Photography****2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to basic camera handling skills and the aesthetics of photography, utilizing black and white film. Emphasis is placed on how to use cameras, lenses, enlargers, and related equipment. Proper film exposure and compositional skills to create original images are also covered. Laboratory practice includes black and white film processing, darkroom printing, and print presentation. This course is intended for students majoring in photography or those with a desire

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

to explore the “old-school” methods of darkroom printing. (FT) AA/AS; CSU; UC.

102A Directed Darkroom Studies I

**3 hours lab, 1 unit
Pass/No Pass**

Corequisite: Completion of or concurrent enrollment in Photography 100 with a grade of “C” or better, or equivalent

Limitation on Enrollment: This course is not open to students with previous credit for Photography 102. This course is the first in a series of four courses of supervised darkroom studies. Emphasis is placed on basic photographic and darkroom skills. This course is intended for photography majors and those interested in darkroom photography. AA/AS; CSU.

102B Directed Darkroom Studies II

**3 hours lab, 1 unit
Pass/No Pass**

Prerequisite: Photography 102A with a grade of “C” or better, or equivalent.

This course is the second in a series of four courses of supervised darkroom studies. Emphasis is placed on intermediate photographic and darkroom skills and medium format film and print techniques. This course is intended for photography majors and those interested in darkroom photography. AA/AS; CSU.

102C Directed Darkroom Studies III

**3 hours lab, 1 unit
Pass/No Pass**

Prerequisite: Photography 102B with a grade of “C” or better, or equivalent.

This course is the third in a series of four courses of supervised darkroom studies. Emphasis is placed on intermediate-advanced photographic and darkroom skills and non-traditional processes and camera use. This course is intended for photography majors and those interested in darkroom photography. AA/AS; CSU.

102D Directed Darkroom Studies IV

**3 hours lab, 1 unit
Pass/No Pass**

Prerequisite: Photography 102C with a grade of “C” or better, or equivalent.

This course is the final in a series of four courses of supervised darkroom studies. Emphasis is placed on large format film and advanced photographic and darkroom skills and print techniques. This course

is intended for photography majors and those interested in darkroom photography. AA/AS; CSU.

103 Digital Directed Photo Lab Studies

**3 hours lab, 1 unit
Pass/No Pass**

Advisory: Completion of or concurrent enrollment in: Photography 105 or Photography 143, each with a grade of “C” or better, or equivalent.

This course is a project-based supervised lab in digital photography. Emphasis is placed on instruction and practice in photo lab and photo editing techniques. This course is intended for Photography majors and students interested in digital photography. AA/AS; CSU.

105 Introduction to Photography

**2 hours lecture, 3 hours lab, 3 units
Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This is a basic photography course for non-photo majors covering use of cameras, lenses, in-camera light meter, and tripods. Topics include shutter speeds, depth of field, portraiture, macro, and night photography. (FT) AA/AS; CSU.

109 Photographic Composition and Design

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Completion of or concurrent enrollment in Photography 100 with a grade of “C” or better, or Photography 143, each with a grade of “C” or better, or equivalent.

This course is a study of image design and composition as applied to photography. Emphasis is placed on identifying and isolating compositional elements of a photograph. Topics include the Rule of Thirds, balance, line, and aspect ratio as applied to photographic imaging. This course is intended for students majoring in photography, pursuing a career in photography, or interested in improving their general photographic skills. (FT) AA/AS; CSU.

125 Photo Business Operations

**2 hours lecture, 2 units
Grade Only**

Advisory: English 101 and Photography 100 or Photography 143, each with a grade of “C” or better, or equivalent.

This course covers basic business organization and planning techniques appropriate for media and photographic production businesses, including pre-production planning, budgeting, and scheduling.

Topics include an exploration of a variety of current photography-related business operations, portfolio development, and presentation skills. This is a course for photography majors and those seeking career opportunities in photography. (FT) AA/AS; CSU.

135 Intermediate Black & White Photography
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Photography 100 with a grade of "C" or better, or equivalent.

This course provides students with intermediate-level instruction and practice in black and white film exposure and development procedures and printing. Emphasis is placed on various techniques for enhancing black and white negative and print quality. Topics also include composition, visual communication skills, use of light, lighting control, and equipment. Instruction includes use of 35 mm format and an introduction to medium format cameras. This course is intended for students majoring in photography or having a serious interest in darkroom / fine art image making. (FT) AA/AS; CSU.

143 Introduction to Digital Photography
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to the methods and processes involved in photographic image acquisition, optimization, and output used in digital photography. Emphasis is placed on the evolution from traditional, analog/wet darkroom to digital approaches to photography and the relationship between these approaches. This is a course for photography majors or those seeking career opportunities in photography. (FT) AA/AS; CSU.

150 History of Photography
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of the history and development of photography. Emphasis is placed on the various scientific and aesthetic issues involved in creating the 'light-based' image from its inception as a tool of fine art through its involvement in the digital revolution. Topics include the social and cultural impacts of photography, the chemical and optical requirements of the process, and the major

historical figures in the development of photography and photographic genres. This course is intended for students majoring in photography or students interested in the history of photography. (FT) AA/AS; CSU; UC.

160 Book Publishing for Photographers
1 hour lecture, 1.5 hours lab, 1.5 units
Letter Grade or Pass/No Pass Option

Advisory: Design 100, Photography 100 or Photography 143, each with a grade of "C" or better, or equivalent.

This course is a hands-on study of book publishing for photographers. Emphasis is placed on concept creation, layout, design and assembly strategies, and publishing and promotion options. This course is designed for intermediate-level photography students with an interest in creating photographic books for portfolios, monographs, or self-promotion purposes. (FT) AA/AS; CSU.

165 Online Portfolio: Websites for Photographers
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 143, Photography 180, or Photography 181, each with a grade of "C" or better, or equivalent.

This course is a hands-on study in the development of an online portfolio to showcase work and/or function as a sales tool for art work or professional services. Emphasis is placed on the special layout and design needs of photographic websites for showing and selling images. This course is designed for intermediate and advanced photo students ready to offer their work and/or creative services. (FT) AA/AS; CSU.

180 Photo Editing: Lightroom
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 143 with a grade of "C" or better, or equivalent.

This course is an introduction to the theories and methods of computer use in image-making utilizing

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both traditional photography and digital technology. The course provides hands on experience in using computer technology as a digital darkroom. Emphasis is on the use of industry standard photo editing software, specifically Adobe Lightroom. Focus is on the applications and principles of image creation, manipulation, and enhancement for visual expression and communication. This course is for photography students who can demonstrate an introductory-level of skill in digital imaging. (FT) AA/AS; CSU.

181 Photo Editing: Photoshop
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 143 with a grade of "C" or better, or equivalent.
 This course presents introductory and intermediate-level techniques utilizing Adobe Photoshop. Students explore a variety of technical and creative tools for producing, editing, and altering digital images. This course is for photography students who can demonstrate an introductory-level of skill in digital imaging. (FT) AA/AS; CSU.

201A Photographic Lighting Techniques I
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 143 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Photo 200 or Photography 200A.
 This is the first in a series of lighting technique courses. Emphasis is placed on a foundational understanding of lighting concepts, techniques, and equipment used in all phases and types of film and digital photography. Topics include control and manipulation of lighting and lighting equipment using both additive and subtractive lighting techniques. This course is designed for intermediate and advanced-level students in photography. (FT) AA/AS; CSU.

201B Photographic Lighting Techniques II
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Photography 201A with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Photography 203. This is the second in a series of lighting technique courses. Emphasis is placed on intermediate level

lighting concepts and industry-standard practices. Topics include mixed lighting, location lighting, painting with light, green screen sets, tethered capturing, and the use of a light table. This course is designed for intermediate and advanced-level students in photography. (FT) AA/AS; CSU.

204A Creative Darkroom Techniques I
0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option

Advisory: Photography 100 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Photography 204, 211 or 265G.
 This course is the first in a series for intermediate and advanced photo students. It provides a broad base of creative photographic techniques for the darkroom. Emphasis is placed on printing images from non-traditional camera types, including toy and pinhole cameras. Topics include artistic methods, such as high contrast/litho imagining and specialty films. This course is intended for photography majors or those interested in fine art photography. (FT) AA/AS; CSU.

204B Creative Darkroom Techniques II
0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option

Advisory: Photography 100 and Photography 143, each with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Photography 213.
 This course is the second in a series for intermediate and advanced photo students. It provides a broad base of creative photographic techniques for the darkroom. Emphasis is placed on printing images from infrared film and modified digital cameras to capture a part of the spectrum unseen by human eyes. Topics include artistic methods, such as infrared film selection, digital camera filters and conversion, and printing from film or digital capture. This course is intended for photography majors or those interested in fine art photography. (FT) AA/AS; CSU.

204C Creative Darkroom Techniques III
0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option
REQUISITES:

Advisory: Photography 135 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 216. This course is the third in a series for intermediate and advanced photo students. It provides a broad base of creative photographic techniques for the darkroom. Emphasis is placed on historical and alternative photographic processes used in both the fine art and commercial world. This course is intended for photography majors or those interested in fine art photography. (FT) AA/AS; CSU.

204D Creative Darkroom Techniques IV

**0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option**

Advisory: Photography 135 and Photography 143, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 217. This course is the fourth in a series for intermediate and advanced photo students. It provides a broad base of creative photographic techniques for the darkroom. Emphasis is placed on the creation of quality darkroom prints (silver, cyanotype, etc.) from digital files, including digital single lens reflex (DSLR), iPhone, or scanned negatives. This course is intended for photography majors or those interested in fine art photography. (FT) AA/AS; CSU.

205 Travel Photography

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Photography 100, Photography 105, or Photography 143, each with a grade of "C" or better, or equivalent.

This course provides students with the necessary concepts and techniques to improve their image-making while traveling. The course covers film and digital, color and black and white, infrared, tripods, night photography, lens selection, filters, luggage/packing, X-ray, printing, and more. This course is designed for students with a serious interest or career aspirations in stock, editorial, travel, assignment, or fine art photography. (FT) AA/AS; CSU.

206A Creative Digital Techniques I

**0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option**

Advisory: Photography 143 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 212.

This course is the first in a series for intermediate and advanced photo students. Emphasis is placed on creative digital photographic techniques. Topics include High Dynamic Range Imaging (HDRI) photographic techniques and expanding the capture range of digital imaging chips and/or to push processing into impressionistic or surreal output. This course is intended for photography majors or those interested in digital photography. (FT) AA/AS; CSU.

206B Creative Digital Techniques II

**0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option**

Advisory: Photography 143 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 214. This course is the second in a series for intermediate and advanced photo students. Emphasis is placed on creative digital photographic techniques. Topics include the use of multi-shot techniques to create panoramas, mosaics (multi-row panoramas), and extended depth of field using digital editing techniques. This course is intended for photography majors or those interested in digital photography. (FT) AA/AS; CSU.

206C Creative Digital Techniques III

**0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option**

Advisory: Photography 143 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 218. This course is the third in a series for intermediate and advanced photo students. Emphasis is placed on creative digital photographic techniques. Topics include equipment and techniques used for macro and close-up photography. This course is intended for photography majors or those interested in digital photography. (FT) AA/AS; CSU.

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206D Creative Digital Techniques IV
8–9 hours lecture, 24–27 hours lab, 1 unit
Letter Grade or Pass/No Pass Option

Advisory: Photography 143 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 219. This course is the fourth in a series for intermediate and advanced photo students. Emphasis is placed on creative digital photographic techniques. Topics include techniques and materials involved in printing on canvas and other non-traditional surfaces. This course is intended for photography majors or those interested in digital photography. (FT) AA/AS; CSU.

215 Photojournalism and Documentary Photography

2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 100 or Photography 143, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Digital Journalism 215.

This course covers the use of photographs to illustrate news stories, feature stories, and other narrative content. Emphasis is placed on the approaches to creating images from the objective news photo to the persuasive documentary image. Topics include exploring the equipment used by professional photojournalists in the field and their interaction with the photo editor/buyer. Legal and ethical issues in news media, including the implications of social and cultural constructs, economics, technology, and equity and social justice, are explored. The course is designed for students pursuing media-related majors and for those seeking employment in the field. (FT) AA/AS; CSU.

220 Portraiture

2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: Photography 201A with a grade of “C” or better, or equivalent.

This course covers camera types and formats, lenses, digital capture, and accessory equipment used for portrait photography. Topics include the physical, psychological, and compositional aspects and characteristics of different portrait styles. Emphasis is placed on different types and sources of light, both in the studio and on location, use of black and white (B/W) and color films and digital capture, posing techniques and proper use of cosmetics, clothing,

etc. This course is intended for intermediate and advanced photography students. (FT) AA/AS; CSU.

221 Fine Art and Photography

1 hour lecture, 1 unit
Letter Grade or Pass/No Pass Option

Advisory: Photography 100 or Photography 143, each with a grade of “C” or better, or equivalent.

This course is intended for intermediate and advanced photography students and covers definitions and characteristics of fine art photography. Many fine art photographers are examined throughout various decades and genres, with an emphasis on the visual tools used to create fine art work. Presentation, framing, and marketing are also researched and analyzed. (FT) AA/AS; CSU.

224 Color Management for Digital Photography

0.5 hours lecture, 1.5 hours lab, 1 unit
Letter Grade or Pass/No Pass Option

Advisory: Photography 143 with a grade of “C” or better, or equivalent.

This course is intended for students with previous experience using Lightroom or Photoshop and want to produce prints that match their monitors. Topics include monitor calibration, International Color Consortium (ICC) profiles, inkjet printers, media selection, and profile settings for printing at commercial labs. (FT) AA/AS; CSU.

230 Advertising Photography

2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 143 or Photography 201A, each with a grade of “C” or better, or equivalent.

This advanced photography course emphasizes production of photographs to sell a client’s products or services. Topics include the photographer’s role in the advertising industry. Emphasis is placed on terminology used in the advertising field, layout production, working to layouts, the psychology of advertising design, use of color, lighting equipment, and lighting techniques. This course is designed for photography majors or advanced photography students. (FT) AA/AS; CSU.

235 Advanced Black and White Photography
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 135 with a grade of “C” or better, or equivalent.

This course concentrates on advanced theory and practice of black and white (B&W) photography including professional applications, specialized processes, and mastery of darkroom skills with an emphasis on individual expression. Topics include advanced printing techniques, film, paper types, toning, archival processing, matting and presentation, digital inkjet printing, and exhibition. This course is designed for advanced photography students. (FT) AA/AS; CSU.

243 Advanced Digital Photography
2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: Photography 143 with a grade of “C” or better, or equivalent.

This course enhances the skills obtained in an introductory course. Students explore advanced methods and processes involved in digital image acquisition, optimization, and output. Topics include high dynamic range (HDR), enhanced depth of field imaging / focus stacking, single and multi-row stitching for increased resolution, and shooting tethered, both in studio and on location. This course is designed for advanced photography students with a solid foundation in basic digital acquisition and image editing. (FT) AA/AS; CSU.

245 Landscape and Nature Photography
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 100, Photography 105, or Photography 143, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 265C. This course explores the application of film and digital photography in the natural outdoor setting. From images of the “Grand Landscape” to details and abstracts drawn from nature, the class studies how light, exposure, composition, concepts of isolation and context, color theory, and various camera shooting techniques affect the final image. Students also analyze the works of well-known landscape and nature photographers, both historical and contemporary. The class is designed for intermediate and advanced level photo students with basic film or digital skills. (FT) AA/AS; CSU.

250 Fashion Photography
2 hours lecture, 3 hours lab, 3 units
Grade Only

Advisory: Photography 201A or Photography 220, each with a grade of “C” or better, or equivalent. This advanced course is a hands-on study of fashion photography. Topics include the assembling a photographic team, creating promotional collateral, and preparing a portfolio for use in the field. Emphasis is placed on the use of photographic equipment and lighting techniques specific to the creation of professional photographs suitable for publication in fashion magazines and advertisements. This course is designed for advanced photography students or photographers currently working in the field. (FT) AA/AS; CSU.

257 Wedding and Event Photography
1 hour lecture, 3 hours lab, 2 units
Letter Grade or Pass/No Pass Option

Advisory: Photography 143, Photography 180, or Photography 201A, each with a grade of “C” or better, or equivalent.

This course covers the techniques, equipment, and approaches used by wedding and event photographers. Emphasis is placed on “must have” shots, the use of assistants, digital equipment, check-lists, and working with clients. This course is intended for advanced-level photography students. (FT) AA/AS; CSU.

259A Photographic Portfolio I
2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option

Advisory: Photography 100 or Photography 143, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Photography 265B or Photography 259.

This course covers the design, fabrication, editing, sequencing, assembly, and presentations of portfolios of work for photography students planning to sell their photographic services or products. Art photographers seeking to show their work in galleries or museums also benefit from this course. This course is designed for intermediate

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and advanced students to create or update their portfolios. (FT) AA/AS; CSU.

259B Photographic Portfolio II

**2 hours lecture, 3 hours lab, 3 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Photography 259A with a grade of "C" or better, or equivalent.

This course is designed for photography students who want to continue the study of photographic portfolio creation at an intermediate portfolio level. Emphasis is placed on fine-tuning their portfolio for specific fine art or commercial job searches or a career change from commercial to fine art photography. (FT) AA/AS; CSU.

290 Independent Study in Photography

**3–9 hours other, 1–3 units
Grade Only**

Limitation on Enrollment: Obtain Permission Number from Instructor

This course is designed for students who wish to pursue special projects or studies in the discipline and is not intended to replace an existing course. A written contract with the instructor is required. This course is designed for students pursuing photography majors and anyone interested in photography industries. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Physical Science (PHYN)

100 Survey of Physical Science

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: Concurrent enrollment in Physical Science 101.

This course is an introductory survey of the fundamental concepts of astronomy, geology, chemistry and physics. Emphasis is placed on the interrelationships among these disciplines and the ways in which the physical sciences affect modern life. This course is intended for students with a

general interest in the physical sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

101 Survey of Physical Science Laboratory

**3 hours lab, 1 unit
Letter Grade or Pass/No Pass Option**

Corequisite: Completion of or concurrent enrollment in Physical Science 100 with a grade of "C" or better, or equivalent.

This course introduces students to the physical science laboratory and is designed to demonstrate the fundamental concepts of astronomy, geology, chemistry, physics and/or the earth sciences. Emphasis is placed on scientific method, real-world application of the physical sciences and collaborative learning. This course is designed for all students interested in the physical sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

114 Weather and Climate

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to weather and climate. Emphasis is placed on the principles of solar radiation and energy transfer, atmospheric structure and composition, cloud development, precipitation, atmospheric pressure, and winds. Topics include the origin and development of storms, the greenhouse effect, and Earth's changing climate. The scientific method is illustrated as it relates to analyzing meteorologic problems. This course is appropriate for students with an interest in weather and climate. (FT) AA/AS; CSU; UC.

290 Independent Study

**3–9 hours other, 1–3 units
Letter Grade or Pass/No Pass Option**

Advisory: Physical Science 100 and Physical Science 101, each with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Must obtain a permission number from the instructor for enrollment.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of physical science. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as preparing problem analysis, engaging in primary

research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Physics (PHYS)

100 Introductory Physics

**3 hours lecture, 3 hours lab, 4 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations. This course is designed for transfer-level students or for those wanting to acquire basic knowledge in physics with a minimum preparation in mathematics. A comprehensive coverage of subject matter in physics is presented, including mechanics, wave motions, thermodynamics, optics, electromagnetism, and atomic and nuclear physics. Emphasis is on the conceptual aspects, including explanation of natural phenomena. Concepts are reinforced through laboratory work. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

125 General Physics

**4 hours lecture, 3 hours lab, 5 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Mathematics 104 or Mathematics 116, each with a grade of "C" or better, or equivalent. *Limitation on Enrollment:* This course is not open to students with previous credit for Physics 120A, Physics 124A, Physics 125A, Physics 181A or Physics 195. This course is an introductory survey of the concepts and principles of physics. Emphasis is placed on developing an understanding of the properties of matter, mechanics, heat, and sound. This course is intended for students taking liberal arts and/or pre-professional courses that do not require physics with calculus. (FT) AA/AS; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 105.

126 General Physics II

**4 hours lecture, 3 hours lab, 5 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Physics 125 with a grade of "C" or better, or equivalent. *Limitation on Enrollment:* This course is not open to students with previous credit for Physics 120B, Physics 124B, Physics 125B, Physics 181B, Physics 195B or Physics 196. This second course in a two-part introductory survey explores the concepts and principles of physics. Topics include electricity, magnetism, light, and modern physics. This course is intended for students taking liberal arts and/or pre-professional courses that do not require physics with calculus. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 110.

180A General Physics I

**4 hours lecture, 4 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Mathematics 116 with a grade of "C" or better, or equivalent. *Corequisite:* Completion of or concurrent enrollment in Mathematics 121 with a grade of "C" or better, or equivalent. *Limitation on Enrollment:* This course is not open to students with previous credit for Physics 120A and Physics 125A or Physics 124A. This course is an introductory survey of the concepts and principles of physics. Emphasis is placed on developing an understanding of the properties of matter, mechanics, heat and sound in order to make calculations and solve fundamental physics problems. This course is designed for students interested in biological sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 105.

180B General Physics II

**4 hours lecture, 4 units
Letter Grade or Pass/No Pass Option**

Prerequisite: Physics 180A and Mathematics 121, each with a grade of "C" or better equivalent. *Limitation on Enrollment:* This course is not open to students with previous credit for Physics 120B and

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Physics 125B or credit or concurrent enrollment in PHYS 124B.

This course is an introductory survey of the concepts and principles of physics. Emphasis is placed on developing an understanding of the properties of electricity, magnetism, light and modern physics in order to make calculations and solve fundamental physics problems. This course is designed for students interested in biological sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 110.

181A General Physics Laboratory I

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Corequisite: Completion of or concurrent enrollment in: Physics 180A with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physics 121A.

This laboratory course is a hands-on study of the properties of matter, mechanics, heat and sound through laboratory experiments. This course is designed for students interested in the biological sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 105.

181B General Physics Laboratory II

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Prerequisite: Physics 180A with a grade of "C" or better, or equivalent.

Corequisite: Completion of or concurrent enrollment in Physics 180B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physics 121B.

This laboratory course is a hands-on study of the principles of electricity, magnetism, light and modern physics through laboratory experiments. This course is designed for students interested in the biological sciences. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 110.

195 Mechanics

4 hours lecture, 3 hours lab, 5 units

Letter Grade or Pass/No Pass Option

Prerequisite: Mathematics 150 with a grade of "C" or better, or equivalent.

Advisory: Completion of or concurrent enrollment in Mathematics 151 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physics 195A and Physics 196A.

This is the first of a three-semester calculus-based general physics sequence designed for scientists and engineers. Topics include linear kinematics, Newton's Laws, energy, rotational kinematics, rigid-body rotation, momentum, fluid mechanics, gravity, oscillatory motion, and thermodynamics. This course is intended for students majoring in the physical sciences or engineering. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 205.

196 Electricity and Magnetism

4 hours lecture, 3 hours lab, 5 units

Grade Only

Prerequisite: Physics 195 and Mathematics 151, each with a grade of "C" or better, or equivalent.

Advisory: Mathematics 252 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physics 195B and 196B.

This is the second course of a three-semester calculus-based general physics sequence. Topics include the basic principles and applications of electrostatics; magnetostatics; time-varying electric and magnetic phenomena; direct and alternating current circuits; elementary electronics; and electromagnetic waves. Emphasis is placed on the mathematical analysis of physical problems. Laboratory work on various aspects of electric and magnetic phenomena emphasizing direct current (DC) and alternating current (AC) circuits is included. This course is intended for students majoring in the physical sciences or engineering. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 210.

197 Waves, Optics and Modern Physics

4 hours lecture, 3 hours lab, 5 units

Letter Grade or Pass/No Pass Option

Prerequisite: Physics 196 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Physics 195C and Physics 196C.

This is the third semester of a three semester calculus-based Physics course designed for

prospective scientists and engineers. Topics include the fundamental principles of physics of waves, the behavior of light, and an introduction to relativity, quantum physics and the atomic and nuclear properties of matter. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID PHYS 215.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Political Science (POLI)

31 Social and Behavioral Sciences Statistics Support

**1 hour lecture, 1 unit
Pass/No Pass**

Corequisite: Political Science 201.

Limitation on Enrollment: This course is not open to students with previous credit for Psychology 31. This course provides additional hands-on experience in basic mathematical and statistical concepts. Students review key terms and definitions and practice foundational skills. This course is intended for students who require additional support to succeed in transfer-level Social and Behavioral Science statistics course. (FT) Not applicable to the Associate Degree.

101 Introduction to Political Science

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introduction to the field of political science. Emphasis is placed on the concepts and methodologies used in the study of political institutions, political participation, public opinion, and the international political system. Other topics include a survey of political theory and the history of American political ideology and culture. This course is intended for students majoring in Political Science and those interested in the field of political science. (FT) AA/AS; CSU; UC; C-ID POLS 150.

102 Introduction to American Government

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This comprehensive survey course provides an in-depth study of American Government, including both the Federal government and the California government. The Federal and California governments are studied from the perspective of constitutional frameworks and political institutions, processes, issues, and policies. Other topics include political participation; political parties and interest groups; social movements and minorities; civil liberties; and the role of political ideology, culture, and the mass media in shaping public opinion and policymaking. This course is intended for transfer students, political science majors, or students interested in American government. (FT) AA/AS; CSU; UC; C-ID POLS 110.

103 Comparative Politics

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Political Science 130.

This course is an introduction to comparative politics. Emphasis is placed on analyses of various political systems using the fundamental concepts and methodologies of comparative politics. This course is designed for political science majors and anyone interested in comparative and/or international politics. (FT) AA/AS; CSU; UC; C-ID POLS 130.

121 American Political Development

**3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course provides an overview of American political development. Students engage in a historical analysis of the evolution of governmental

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
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Milestone formerly referred to as Skill Level

institutions in the United States, and study how political ideas, political practices, and political actors (including ethnic groups, women, political parties, interest groups, and social movements) shape and are shaped by these institutional factors. This course is intended for transfer students, political science majors, or students interested in the American political system. AA/AS; CSU; UC.

124 Power and Justice: An Introduction to Political Theory

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an exploration of the relationship between power and justice in modern society. Topics include various accounts of the meaning of power and justice, how political institutions harness power, and the ways in which political power can both impede and advance justice. Materials include classic and contemporary texts, films, and literature. This course is intended for political science majors, transfer students, and students interested in these topics. AA/AS; CSU; UC; C-ID POLS 120.

140 Contemporary International Politics

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of world politics including the various approaches to international relations and international political economy. Emphasis is placed on the roles of nationalism, nation-states, transnationalism and international organizations in the making of contemporary world politics as well as on issues of national security, power and diplomacy, economic competition, international law and the environment. This course is intended for students majoring in political science or anyone with an interest in world politics. (FT) AA/AS; CSU; UC; C-ID POLS 140.

201 Elementary Statistics for Political Science

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement based on California Title 5 regulations.

Advisory: English 101 with a grade of "C" or better, or equivalent.

This is an introductory course on statistical methods for political and social sciences. Emphasis is placed on basic data analysis techniques as well as elementary statistical and probability concepts. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests; and application of technology for statistical analysis based on data from disciplines including business, social and behavioral sciences, life science, health science, and education. This course is designed for Political Science majors, other Social Sciences majors, and anyone interested in statistics. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID SOCI 125.

290 Independent Study

3–9 hours other, 1-3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to study special topics in political science. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Psychology (PSYC)

31 Social and Behavioral Sciences Statistics Support

**1 hour lecture, 1 unit
Grade Only**

Corequisite: Psychology 258.

Limitation on Enrollment: This course is not open to students with previous credit for Political Science 31. This course provides additional hands-on experience in basic mathematical and statistical concepts.

Students review key terms and definitions and practice foundational skills. This course is intended for students who require additional support to succeed in transfer-level Social and Behavioral Science statistics course. (FT) Not applicable to the Associate Degree.

101 General Psychology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a survey of the concepts, principles and terminology of psychology as a science. Emphasis is placed on introducing students to the diverse areas that make up the field of psychology, preparing students for further study in the behavioral sciences and providing students with greater insight into human behavior. This course is designed for students planning to take advanced courses in the Social and Behavioral Sciences and/or students majoring in Psychology. (FT) AA/AS; CSU; UC; C-ID PSY 110.

111 Psychological/Social Aspects of Aging, Death, and Dying

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the psychological, physiological and social factors influencing behavior throughout the aging process, including the aspects of death and dying. This course is intended for students majoring in psychology and for all students interested in the psychology of aging. (FT) AA/AS; CSU; UC.

123 Adolescent Psychology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an exploration of an explosive period in human development. Topics include the physical, cognitive, and emotional development of the adolescent. Students study the stresses experienced during the teenage years and investigate methods of coping with the individual adolescent. This course is intended for students interested in psychology or human development. (FT) AA/AS; CSU; UC.

130 Introduction to Community Psychology

3 hours lecture, 3 units

Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of community psychology. Emphasis is placed on the history and role of community psychology in the broader field of psychology. Students apply the key perspectives and fundamentals of the field to case studies and current issues in the community. This course is designed for psychology majors and students pursuing career paths in counseling, public, mental health, and human services. (FT) AA/AS; CSU.

135 Marriage and Family Relations

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the behaviors related to courtship, engagement, marriage, and family life. Emphasis is placed on the historical, cross-cultural, and social perspectives of families. Topics include interpersonal communication, economic management, and sexuality as they relate to the family. This course is intended for psychology and child development majors as well as all students interested in the psychology of interpersonal communication. (FT) AA/AS; CSU; UC.

137 Human Sexual Behavior

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the psychological, social, and physiological dimensions of human sexual behavior. Emphasis is placed on the diversity of human sexual development and current research. This course is designed for psychology majors and all students interested in human sexual behavior and related issues. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

(FT) = A field trip may be required for this course.

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Milestone formerly referred to as Skill Level

155 Introduction to Personality**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is a survey of the fundamental personality theories. Emphasis is placed on the personal life experiences of each of the major personality theorists, their research and assessment methods, and applications of their theories. This course is designed for psychology majors and anyone seeking a stronger understanding of psychological theory. (FT) AA/AS; CSU; UC.

161 Introduction to Counseling**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course is an introductory study of the history and complexity of the counseling relationship. Emphasis is placed on the skills required to be an effective counselor. Topics include various counseling approaches and settings as well as related legal and ethical issues. This course is intended for psychology majors and anyone interested in the therapeutic aspects of counseling psychology. (FT) AA/AS; CSU.

165 Theories of Consciousness**3 hours lecture, 3 units****Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course explores various theoretical approaches to the mind-body problem, as well as a broad range of different states of consciousness, including normal waking consciousness, daydreaming, sleeping, dreaming, hypnosis, meditation, and psychedelic drug states. States of consciousness are considered by examining both behavioral experiences as well as neural correlates of those states, including case studies of brain-injured patients and neuroimaging of normal participants in different states of consciousness. This course is intended for all students interested in psychology and/or theories of consciousness. (FT) AA/AS; CSU.

166 Introduction to Social Psychology**3 hours lecture, 3 units****Grade Only**

Advisory: English 101 with a grade of “C” or better, or equivalent.

Social psychology examines how individuals are influenced by their social environment. Special attention is given to social cognition and perception, self-justification, conformity, group dynamics, prejudice, aggression, prosocial behavior and applied social psychology. Emphasis will be placed on developing critical and integrative ways of thinking about theory and research in social psychology. This course is for anyone who is interested in the subject of social psychology. (FT) AA/AS; CSU; UC; C-ID PSY 170.

201 Academic and Career Opportunities in Psychology**1 hour lecture, 1 unit****Pass/No Pass**

Prerequisite: Psychology 101 with a grade of “C” or better, or equivalent.

Advisory: 30 units of college course work.

This course is a study of career options in the field of Psychology. Emphasis is placed on the identification of career-related strengths and interests and information on post-baccalaureate options in psychology and related fields. This course is designed for students interested in majoring in psychology. (FT) AA/AS; CSU.

211 Learning**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Psychology 101 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Psychology 210.

This course is a study of the basic principles and research in animal and human learning. Topics include scientific versus nonscientific approaches to behavior studies, operant and respondent conditioning, observational and cognitive learning, and motivation as related to self-control. This course is designed for students majoring in psychology or interested in the field. AA/AS; CSU; UC.

230 Psychology of Lifespan Development**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Psychology 101 with a grade of “C” or better, or equivalent.

This course is a study of the psychological development of humans in all their sociocultural diversity from conception to death. Emphasis is placed on the major theoretical paradigms related to growth and change and the variety of factors that

shape similarities and differences in life. This course is intended for students majoring in psychology. (FT) AA/AS; CSU; UC.

245 Abnormal Psychology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a comprehensive survey of recognized patterns of abnormal behavior. Emphasis is placed on the theoretical models as they relate to assessment, diagnoses, etiology, treatment, and prognosis of recognized disorders. Topics also include legal and ethical issues related to abnormal psychology. This course is designed for psychology majors and all students interested in abnormal psychology. (FT) AA/AS; CSU; UC.

255 Introduction to Psychological Research

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Psychology 101 and Psychology 258 or Mathematics 119 or Biology 200, each with a grade of "C" or better, or equivalent.

This course is an introduction to scientific methodology in psychology. Emphasis is placed on descriptive, experimental, and applied research. Students use the American Psychological Association writing style for empirical report writing. This course is intended for psychology majors and majors with components of the research process. (FT) AA/AS; CSU; UC; C-ID PSY 200.

258 Behavioral Science Statistics

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Successful completion of Intermediate Algebra with a grade of C or better or appropriate placement Milestone M40 or M50 based on California Title 5 regulations. Students with Milestone M30 must enroll in LCOM 258X (PSYC 258 and PSYC 31 Learning Community).

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an introductory study of statistics for the behavioral sciences. Emphasis is placed on acquainting students with the concepts underlying statistical methods and research approaches; basic statistical analyses; and principles. Topics include data collection; descriptive and inferential statistics; sampling distributions; measures of central tendency, dispersion, relative standing, and

relationship; probability; prediction; hypothesis evaluation; and tests for treatment effects. This course is intended for students majoring in the behavioral/social sciences or those interested in applied statistics. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID SOCI 125; C-ID PSYC 258 + PSYC 259 = MATH 110.

259 Behavioral Science Statistics Laboratory

3 hours lab, 1 unit

Letter Grade or Pass/No Pass Option

Corequisite: Completion of or concurrent enrollment in Psychology 258 with a grade of "C" or better, or equivalent.

This laboratory course offers students practice in using statistical analysis software for the behavioral sciences. Emphasis is placed on data entry, graphing, hypothesis testing and statistical analyses. This course is intended for psychology and other behavioral science majors and anyone interested in using statistical analysis software for research purposes. (FT) AA/AS; CSU; C-ID PSYC 258 + PSYC 259 = MATH 110.

260 Introduction to Physiological Psychology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Psychology 101 with a grade of "C" or better, or equivalent.

This course is a study of the biological bases of behavioral and cognitive processes. Emphasis is placed on neuroanatomy and neurophysiology as a means for understanding how basic neurological processes impact perception, movement, consciousness, sexual behaviors, ingestive behaviors, emotions, learning, memory, communication, and neurological and psychological disorders. This course is designed for students majoring in psychology and all students interested in physiological psychology. (FT) AA/AS; CSU; UC; C-ID PSY 150.

(FT) = A field trip may be required for this course.

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Milestone formerly referred to as Skill Level

276 Field Work in Psychological Services
2 hours lecture, 48 hours other, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This supervised field experience course enables the student to be of service to the community while learning about the function of human care services. Emphasis is placed on providing students with the chance to explore the varied career choices in the field of psychology as well as on practical experience with basic helping skills in current social service situations. This course is intended for students who want to work with people in human care services. (FT) AA/AS; CSU.

283 Introduction to Cognitive Psychology
3 hours lecture, 3 units
Grade Only

Prerequisite: Psychology 101 with a grade of “C” or better, or equivalent.

This course is a study of the theory and research on cognitive processes. Emphasis is placed on perception, attention, learning, memory, language, thought, visual cognition, problem solving, and applications of cognitive psychology. This course is intended for students majoring in psychology and all students interested in cognitive processes. (FT) AA/AS; CSU; UC.

290 Independent Study
3–9 hours other, 1–3 units
Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is for students who wish to conduct additional research, a special project, or learning activities in the field of psychology. It is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. (FT) AA/AS; CSU.

Public Administration (PADM)

110 Introduction to Law and Society
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This is an introductory course on the American legal system and its impact on society. Topics include different sources of law such as the federal and state constitutions and statutes, court cases, and administrative agency rules. Emphasis is placed on review of basic legal reasoning, the history and structure of the American legal system, and the way the application of the law shapes society, democracy, civil liberties, and equal rights. This course is intended for students pursuing a major in political science, public administration, and other related fields. (FT) AA/AS; CSU; UC.

200 Introduction to Public Administration
3 hours lecture, 3 units
Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of “C” or better, or equivalent.

This course explores the theory and practice of public administration and social policy. Topics include an examination of all levels of governmental structures, organizational theory, public policy decision-making processes, performance assessment, Human Resource Management (HRM), leadership, budgeting, administrative law, intergovernmental relations, and ethics as they apply to the field of public administration. This course is intended for students majoring in Public Administration and all students interested in politics, social policy, and the administration of public agencies. (FT) AA/AS; CSU; UC.

Real Estate (REAL)

101 Real Estate Principles
3 hours lecture, 3 units
Grade Only

This course is a study of the economics and transfer of land ownership. Emphasis is placed on the roles and responsibilities of the broker, the owner and the purchaser in the buying and selling of property.

This course is designed for students majoring in real estate and anyone interested in the principles of real estate. This course applies toward the State's educational requirements for the real estate salesperson's license examination and as an elective for the broker's license exam. This course is intended for current or future real estate professionals. (FT) AA/AS; CSU.

105 Legal Aspects of Real Estate

**3 hours lecture, 3 units
Grade Only**

This course is a study of California Real Estate law. Emphasis is placed on the practical application of the law to legal problems arising from real estate transactions; statutory enactment and case law; legal instruments; zoning ordinances; and city and county planning decisions. This course applies toward the State's educational requirements for the broker's examination and as an elective for the real estate salesperson's license exam. This course is intended for current or future real estate professionals. (FT) AA/AS; CSU.

110 Principles of Real Estate Appraisal I

**3 hours lecture, 3 units
Grade Only**

This course is a study of basic appraisal principles, market analysis, and highest and best use. Topics include an overview of real property concepts and characteristics; legal consideration; value influences; real estate finance; types of value; economic principles; real estate markets and analysis; and ethics in appraisal practice. Course content also includes the tools needed to properly collect and analyze market data including market segmentation and disaggregation; supply side analysis; demand analysis; and highest and best use. This course applies toward the State's educational requirements for the broker's examination and the real estate appraiser trainee examination, and as an elective for the real estate salesperson's license exam. This course is intended for current or future real estate professionals. This course is intended for investors and current or future real estate professionals. (FT) AA/AS; CSU.

115 Real Estate Finance

**3 hours lecture, 3 units
Grade Only**

This course is a study of real estate finance. Emphasis is placed on the types of real estate lenders, the sources of income for lending purposes, and buyer

qualifications. This course is designed for students majoring in real estate and for anyone interested in real estate finance. This course applies toward the State's educational requirements for the broker's examination and as an elective for the real estate salesperson's license exam. This course is intended for current or future real estate professionals. (FT) AA/AS; CSU.

120 Real Estate Practice

**3 hours lecture, 3 units
Grade Only**

This course examines the principles of real estate practice as they pertain to day-to-day operations in a real estate office. Topics include listings, valuations, prospecting, selling, financing, exchanges, taxation, and specialized brokerage operations. Professional and ethical activities are stressed. This course applies toward the State's educational requirements for both the broker's and the real estate salesperson's examination. This course is intended for current or future real estate professionals. (FT) AA/AS; CSU.

125 Real Estate Economics

**3 hours lecture, 3 units
Grade Only**

This course deals with trends and factors that affect the value of real estate; the nature and classification of land economics; the development of property, construction, and subdivision; economic values and real estate evaluation; real estate cycles and business fluctuations; residential market trends; and real property and special purpose property trends. This course applies toward the State's educational requirements for the broker's examination and as an elective for the real estate salesperson's license. This course is intended for current or future real estate professionals. (FT) AA/AS; CSU.

130 Real Property Management

**3 hours lecture, 3 units
Grade Only**

This course is a practical approach to the principles and practices of managing income properties. Emphasis is placed on marketing, leasing, and maintenance of real property. This course applies

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toward the State's educational requirements for the broker's examination and as an elective for the real estate salesperson's license exam. This course is intended for current or future real estate professionals. (FT) AA/AS; CSU.

151 Real Estate Computer Applications
3 hours lecture, 3 units
Grade Only

This introductory course covers basic computer hardware, functions, software, and Internet resources available to enhance productivity for real estate professionals. The course introduces students to a myriad of general and commercial software products designed or adapted for use in the real estate industry. Emphasis is placed on Internet tools and resources for the California Real Estate Salesperson and Broker. This course applies toward the state's educational requirements for the California Real Estate Salesperson and Real Estate Broker license. It is intended for current or future real estate professionals. (FT) AA/AS; CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (44), Experimental Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), or Work Experience (270). Detailed course descriptions are listed on page 328. Please refer to the class schedule and/or see the dean or department chair for availability.

Russian (RUSS)

101 First Course in Russian
5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

This is an entry level course designed to introduce students to the Russian language and cultures of the Russian-speaking world. In this interactive course, students learn and use the language by speaking, listening, reading, and writing at the novice level. Basic language structures and vocabulary for communication are examined and explored in Russian. This course is intended for all students interested in the Russian language and culture. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org.

102 Second Course in Russian
5 hours lecture, 5 units
Letter Grade or Pass/No Pass Option

Prerequisite: Russian 101 with a grade of "C" or better, or equivalent or two years of high school Russian or equivalent.

This course is the second in the Russian language series. Emphasis is placed on developing language competency and an understanding of the Russian culture. In this interactive course, students listen, read, speak, and write beyond the novice level. Students develop their receptive and productive competencies to the low-intermediate or mid-intermediate level. Additional language structures and vocabulary for communication are examined and explored in Russian. This course is intended for all students interested in the Russian language and culture. (FT) AA/AS; CSU; UC.

San Diego Gas and Electric (SDGE)

90 Electric Lineman IA
5 hours lecture, 5 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for San Diego Gas and Electric 302 or Electricity 190.

This course provides an orientation in the power distribution and line construction industry. Basic electrical principles and safety on the job are emphasized. Topics include basic mathematical computations, including trigonometry fundamentals, electron theory, and the fundamentals of magnetism. Students combine electrical theory with laboratory and practical applications in the course of study. (FT) AA/AS.

91 Electric Lineman IB
5 hours lecture, 5 units
Grade Only

Limitation on Enrollment: This course is not open to students with previous credit for San Diego Gas and Electric 304 or Electricity 191.

This course involves the study of the power distribution and line construction industry. Topics include methods of producing electricity, alternating current (A.C.) and direct current (D.C.) meters, and circuitry and electric batteries. Students also learn about Ohm's Law, Kirchhoff's Law, and electromagnetic induction. (FT) AA/AS.

92 Electric Lineman IIA**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for San Diego Gas and Electric 310 or Electricity 192.

This course is a study of alternating current circuits, alternating current (A.C.) and direct current (D.C.) motors and generators, pole and overhead construction, and transformers and voltage regulators. Topics include schematics, shunt and series capacitors, and safety issues outlined by the Occupational Safety and Health Act (OSHA). Calculating power used by electrical circuits is also covered. (FT) AA/AS.

93 Electric Lineman IIB**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for San Diego Gas and Electric 312 or Electricity 193.

This course covers state safety orders for line construction and maintenance, transmission and distribution systems, and conductors and electrical systems faults. Students also learn about short circuits, system protective concepts, and how to identify control circuits from wiring diagrams. (FT) AA/AS.

94 Electric Lineman IIIA**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for San Diego Gas and Electric 320 or Electricity 194.

This course covers advanced theory of electrical distribution lines and systems. Other topics include phasing, system groundings, substations, and the use of electrical instruments. Students also learn how to connect transformers in accordance with the state code. Usage of fusing tables and reference tables, including technical symbols are also covered. (FT) AA/AS.

95 Electric Lineman IIIB**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: This course is not open to students with previous credit for San Diego Gas and Electric 322 or Electricity 195.

This course is a continuation of advanced theory of electrical distribution lines and systems.

Topics include the use of "hot sticks" and special equipment, repair and maintenance of poles and lines - both cold and energized, and safety practices and local/state requirements. Students are expected to master competencies, such as those included in elements of electricity, overhead pole and electrical line construction, safety codes and applications, electric power system, transformer and meter installations, and exploration of underground electrical distribution. (FT) AA/AS.

302 Electric Lineman IA**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course is not open to students with previous credit for Electricity 190 or San Diego Gas and Electric 90.

This course provides an orientation in the power distribution and line construction industry. Basic electrical principles and safety on the job are emphasized. Topics include basic mathematical computations, including trigonometry fundamentals, electron theory, and the fundamentals of magnetism. Students combine electrical theory with laboratory and practical applications in the course of study. (FT) AA/AS.

304 Electric Lineman IB**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course is not open to students with previous credit for Electricity 191 or San Diego Gas and Electric 91.

This course involves the study of the power distribution and line construction industry. Topics include methods of producing electricity, alternating current (A.C.) and direct current (D.C.) meters, and circuitry and electric batteries. Students also learn about Ohm's Law, Kirchhoff's Law, and electromagnetic induction. (FT) AA/AS.

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

310 Electric Lineman IIA**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course is not open to students with previous credit for Electricity 192 or San Diego Gas and Electric 92.

This course is a study of alternating current circuits, alternating current (A.C.) and direct current (D.C.) motors and generators, pole and overhead construction, and transformers and voltage regulators. Topics include schematics, shunt and series capacitors, and safety issues outlined by the Occupational Safety and Health Act (OSHA). Calculating power used by electrical circuits is also covered. (FT) AA/AS.

312 Electric Lineman IIB**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course is not open to students with previous credit for Electricity 193 or San Diego Gas and Electric 93.

This course covers state safety orders for line construction and maintenance, transmission and distribution systems, and conductors and electrical systems faults. Students also learn about short circuits, system protective concepts, and how to identify control circuits from wiring diagrams. (FT) AA/AS.

320 Electric Lineman IIIA**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course is not open to students with previous credit for Electricity 194 or San Diego Gas and Electric 94.

This course covers advanced theory of electrical distribution lines and systems. Other topics include phasing, system groundings, substations, and the use of electrical instruments. Students also learn how to connect transformers in accordance with the state code. Usage of fusing tables and reference tables, including technical symbols are also covered. (FT) AA/AS.

322 Electric Lineman IIIB**5 hours lecture, 5 units
Grade Only**

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course is not open to students with previous credit for Electricity 195 or San Diego Gas and Electric 95.

This course is a continuation of advanced theory of electrical distribution lines and systems. Topics include the use of "hot sticks" and special equipment, repair and maintenance of poles and lines - both cold and energized, and safety practices and local/state requirements. Students are expected to master competencies, such as those included in elements of electricity, overhead pole and electrical line construction, safety codes and applications, electric power system, transformer and meter installations, and exploration of underground electrical distribution. (FT) AA/AS.

330 Substation Electrician IIIA**5 hours lecture, 5 units
Grade Only**

This course is a continuation of advanced theory of electrical substations that includes a practical overview of electrical apparatus designed for third-year Electrician Apprentices. Topics include descriptions and examples of different types of apparatus and their functions, where they are encountered, under what circumstance, typical maintenance, and typical approaches to the equipment. Students will be expected to pass a final examination. (FT) AA/AS.

332 San Diego Gas and Electric Substation Electrician IIIB**5 hours lecture, 5 units
Grade Only**

This course is a continuation of advanced theory of electrical substations that includes a practical overview of electrical and structural drawings designed for third-year Electrician Apprentices. Topics include descriptions and examples of different types of drawings and their functions, wiring nomenclature, IEEE device numbers and functions, relay functions, alternating current (AC) circuit symbols, direct current (DC) circuit symbols, physical layouts, grounding, foundations, and steel. Students will be expected to master the reading and appropriate use of drawings in various substation situations. (FT) AA/AS.

San Diego Trolley (TROL)

301 San Diego Trolley Light Rail Vehicle I 1.5 hours lecture, 1.5 hours lab, 2 units Grade Only

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course is an introduction to the San Diego Trolley Light Rail Vehicle apprenticeship program. Topics include organization of the company, on-the-job safety, use of tools and test equipment, lubrication and maintenance, and vehicle layout and component identification. (FT) AA/AS.

302 San Diego Trolley Light Rail Vehicle II 1 hour lecture, 1.5 hours lab, 1.5 units Grade Only

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course covers beginning levels of maintenance and inspection of Light Rail Vehicles in the San Diego Trolley Light Rail Vehicle apprenticeship program. Topics include mechanical concepts, planned and unplanned maintenance, component inspections, and use of support equipment. (FT) AA/AS.

303 San Diego Trolley Light Rail Vehicle III 2 hours lecture, 3 hours lab, 3 units Grade Only

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course covers intermediate levels of maintenance and inspection of Light Rail Vehicles in the San Diego Trolley Light Rail Vehicle apprenticeship program. Topics include electrical theory, electrical measurement, schematic drawings, control systems, and system troubleshooting. (FT) AA/AS.

304 San Diego Trolley Light Rail Vehicle IV 2 hours lecture, 3 hours lab, 3 units Grade Only

Limitation on Enrollment: Apprenticeship - Student must be a state registered apprentice in this trade. This course covers advanced levels of maintenance and inspection of Light Rail Vehicles in the San Diego Trolley Light Rail Vehicle apprenticeship program. Topics include electrical component and circuit theory, number systems, logic, small to large scale circuit integration, and analysis and troubleshooting of vehicle controls. (FT) AA/AS.

Sociology (SOCO)

101 Principles of Sociology 3 hours lecture, 3 units Letter Grade or Pass/No Pass Option

This course is an introductory study of the basic concepts, theoretical approaches, and methods of sociology. Topics include the scientific study of social interaction, structure, and organization; groups; socialization and the self; social stratification; culture and diversity; social change; and global dynamics. Topics and examples emphasize present-day America, including cross-cultural and multicultural analysis. This general education course is intended for students interested in the social sciences and those considering careers in counseling, teaching, social work or nursing. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID SOCI 110.

110 Contemporary Social Problems 3 hours lecture, 3 units Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course requires students to identify and analyze present day social problems in the United States, with emphasis on sociological factors involved, including cross-cultural and multicultural analysis. Students use scientific methods and criteria for evaluating proposals for social betterment. This course is useful for students pursuing careers in criminology, counseling, education, law, and medicine. (FT) AA/AS; CSU; UC; C-ID SOCI 115.

125 Sociology of the Family 3 hours lecture, 3 units Letter Grade or Pass/No Pass Option

This course is a study of the structures and functions of the family as a social, cultural and historical institution in the United States and throughout the world. Emphasis is placed on an analysis of the family's relationship to economic structures,

(FT) = A field trip may be required for this course.
AA/AS = Associate Degree Applicable
CSU = California State University Applicable
UC = University of California Applicable
Milestone formerly referred to as Skill Level

political institutions and belief systems. Topics include definitions of family, gender roles and family stability. This course is intended for students majoring in sociology, psychology, social work and counseling as well as any student interested in the study of the family as an institution. (FT) AA/AS; CSU; UC; C-ID SOCI 130.

145 Health and Society

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: Completion of or concurrent enrollment in English 101 with a grade of "C" or better, or equivalent.

This course presents a broad introduction of sociological concepts and ideas related to the study of health and illness in the United States (US). Emphasis is placed on the relationship between social forces and health, the cultural meanings associated with health and illness, and the social behavior of health care professionals and patients. Further focus includes the political and economic consequences and effects surrounding health care and the structure of social institutions that constitute the health care industry. In addition, race, gender, age, social class, sexuality, and disability are a focal point of analysis throughout this course as these identities influence the experience of health and illness. This course is designed for sociology majors and/or those interested in better understanding health and illness as social experiences in the US. (FT) AA/AS; CSU; UC.

150 Sociology of Latinos/Latinas

3 hours lecture, 3 units

Grade Only

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is an in-depth sociological examination of Latino communities in the United States. Topics include family structure, gender roles, and sexuality; religion; economics; racism; social movements; U.S./Mexico border issues and immigration policy; and education. Emphasis is placed on social interactions, the politics of identity formation, and social processes impacting the status of U.S. Latinos. This course is intended for sociology majors or any student interested in the social sciences. (FT) AA/AS; CSU; UC.

201 Advanced Principles of Sociology

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 with a grade of "C" or better, or equivalent.

This course is a study of the origins of sociological theory. Principal contributors are presented and examined in detail, with special attention to their model of human action, the nature of empirical fact, and implications for public policy. With an emphasis on critical analyses of science and the humanities, this course is designed to provide a standard theory foundation for transfer students majoring in the arts, sciences, or social sciences. AA/AS; CSU; UC.

207 Introduction to Race and Ethnicity

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course is a sociological analysis of race, ethnicity, racism, and discrimination. Students examine the cultural, political, and economic practices and institutions that support or challenge racism and discrimination and racial and ethnic inequalities. Other topics include the historical and contemporary patterns of interaction between various racial and ethnic groups. This course is intended for students majoring in sociology or ethnic studies, or those interested in race and ethnicity. (FT) AA/AS; CSU; UC.

220 Introduction to Research Methods in Sociology

3 hours lecture, 3 units

Grade Only

Prerequisite: Sociology 101 with a grade of "C" or better, or equivalent.

Advisory: Psychology 258 with a grade of "C" or better, or equivalent.

This course introduces students to the fundamental elements of sociological research. Topics include the role of theory in research, issues of ethics, key steps of research design, a review of data collection methods, quantitative and qualitative analyses, and development of a research report. This course is intended for students majoring in Sociology or other fields of social science. (FT) AA/AS; CSU; UC; C-ID SOCI 120.

223 Globalization and Social Change**3 hours lecture, 3 units****Letter Grade or Pass/No Pass Option**

Advisory: English 101 with a grade of "C" or better, or equivalent; Sociology 101 with a grade of "C" or better, or equivalent.

This course evaluates the social and political changes brought on by globalization among industrialized, industrializing, and underdeveloped nations. It presents arguments and theories for and against globalization supplemented with empirical examples. The course is useful for those considering careers in law, politics, business, teaching, or non-profit organizations dealing with human rights issues, political advocacy, or international affairs. (FT) AA/AS; CSU; UC.

290 Independent Study**3–9 hours other, 1-3 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is designed for students who wish to conduct additional research, a special project, or learning activities in the field of sociology. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

Solar Turbines (SOLR)**349 Solar Work Experience****216 hours per semester, 4 units****Pass/No Pass Only**

Limitation on Enrollment: Student must be a state registered apprentice in this trade and concurrently enrolled in a related apprenticeship class. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. AA/AS.

Spanish (SPAN)**101 First Course in Spanish****5 hours lecture, 5 units****Letter Grade or Pass/No Pass Option**

Limitation on Enrollment: This course is not open to students with previous credit for or concurrent enrollment in Spanish100.

This interactive course introduces students to the Spanish language and the cultures of the Spanish speaking world. Students use basic Spanish language structures and vocabulary to speak, listen, read, and write in cultural context at the novice level. This course is intended for all students interested in gaining proficiency in the Spanish language for academic purposes and/or personal enrichment. (FT) AA/AS; CSU; UC, for UC Transfer Limitations see a Counselor or reference ASSIST.org; C-ID SPAN 100.

102 Second Course in Spanish**5 hours lecture, 5 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Spanish 101 with a grade of "C" or better, or equivalent or two years of high school Spanish with a grade of 'C' or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for or concurrent enrollment in Spanish 100.

This interactive course is the second in the Spanish language series. Students use increasingly complex Spanish language structures to speak, listen, read, and write in cultural context at the novice-high level. This course is intended for all students interested in gaining proficiency in the Spanish language for academic purposes and/or personal enrichment. (FT) AA/AS; CSU; UC; C-ID SPAN 110.

201 Third Course in Spanish**5 hours lecture, 5 units****Letter Grade or Pass/No Pass Option**

Prerequisite: Spanish 102 with a grade of "C" or better, or equivalent or three years of high school Spanish.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

This interactive course is the third in the Spanish language series. Students use increasingly complex language structures and vocabulary to develop the functional competence required to communicate beyond survival needs and to discuss and express opinions on abstract topics related to the arts, lifestyle, linguistics, and literature at the intermediate level. This course is intended for students majoring in Spanish and anyone interested in gaining proficiency in the Spanish language for academic purposes and/or personal enrichment. (FT) AA/AS; CSU; UC; C-ID SPAN 200.

202 Fourth Course in Spanish

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

Prerequisite: Spanish 201 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Spanish 200. This interactive course is the fourth in the Spanish language series. Emphasis is placed on the use of complex language structures and vocabulary to communicate beyond casual conversation and to express opinions and offer hypothetical possibilities related to abstract issues and plans, cultural norms and values, and interpersonal relationships. Students are encouraged to think critically by analyzing linguistic structures and making cross cultural comparisons related to the Spanish speaking world. This course is intended for students majoring in Spanish and anyone interested in gaining proficiency in the Spanish language for academic purposes and/or personal enrichment. (FT) AA/AS; CSU; UC; C-ID SPAN 210.

210 Conversation and Composition Spanish I

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Spanish 102 with a grade of "C" or better, or equivalent.

This course further develops oral comprehension and fluency as well as written communication at a mid-intermediate level in Spanish through culturally relevant materials. Students increase vocabulary, dramatize everyday topics of conversation, interpret and describe materials, and compare and contrast Latin American and Spanish cultures with U.S. culture both orally and in writing. Writing strategies are emphasized and literature is introduced. This course is intended for students who want to enhance their skills in the Spanish language. (FT) AA/AS; CSU; UC.

211 Conversation and Composition Spanish II

3 hours lecture, 3 units

Letter Grade or Pass/No Pass Option

Prerequisite: Spanish 210 with a grade of "C" or better, or equivalent.

This course further develops oral comprehension and fluency as well as written communication at an advanced-intermediate level in Spanish through culturally relevant materials. Students further increase vocabulary; dramatize everyday topics of conversation; interpret and describe materials; and compare and contrast Latin American and Spanish cultures with U.S. culture both orally and in writing. Pre-reading strategies introduced in the prerequisite course are used as a basis upon which to build course emphasis in reading. In addition, more literature is introduced. This course is intended for students who want to further enhance their skills in Spanish. (FT) AA/AS; CSU; UC.

215 Spanish for Spanish Speakers I

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: This course is not open to students with previous credit for Spanish 201.

This course is designed for students who are fluent in spoken, informal Spanish and who need to improve their writing, reading, and grammar skills. Emphasis is placed on formal, written communication skills in Spanish at the intermediate level, and the study of Hispanic and Chicano culture through contemporary reading materials. The course focuses on language challenges particular to Spanish speakers such as orthography, the inappropriate mix of English and Spanish, and contrasts between standard Spanish and regional variations. This course is conducted entirely in Spanish. (FT) AA/AS; CSU; UC; C-ID SPAN 220.

216 Spanish for Spanish Speakers II

5 hours lecture, 5 units

Letter Grade or Pass/No Pass Option

Prerequisite: Spanish 215 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Spanish 202, nor to Spanish speakers who have received the equivalent of a high school degree in a Spanish speaking country.

This course is the second of a two-course sequence in Spanish for Spanish Speakers. It is designed for students who are fluent in spoken, informal

Spanish and who need to improve their writing, reading, and grammar skills. It furthers the mastery of formal, written communication in Spanish at the intermediate-advanced level, while integrating instruction in Hispanic and Chicano culture through increased practice in intermediate-advanced level readings, relevant, and authentic materials. The course focuses on language challenges that Spanish speakers still encounter at intermediate-advanced level, such as orthography, the inappropriate mix of English and Spanish in specific contexts, and standard Spanish as contrasted with regional variations. This course is conducted entirely in Spanish. (FT) AA/AS; CSU; UC; C-ID SPAN 230.

290 Independent Study in Spanish

3–9 hours other, 1-3 units

Letter Grade or Pass/No Pass Option

Limitation on Enrollment: Obtain Permission Number from Instructor.

This course is designed for intermediate students who wish to work on special projects and to further develop their communication skills in Spanish. It is not intended to replace an existing course in the discipline. In this course students have a written contract with their instructor for activities such as: preparing problem analyses, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. AA/AS; CSU.

Sustainability (SUST)

101 Introduction to Sustainability

3 hours lecture, 3 units

Grade Only

Advisory: English 101 or English 105, each with a grade of "C" or better, or equivalent.

This course introduces students to an interdisciplinary examination of the theory and practices of sustainability. Sustainability can be defined as meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Topics include restoring ecological and environmental health, creating economic welfare, and ensuring social justice. This course is intended for students interested in sustainability, environmental ethics, and peace studies. (FT) AA/AS; CSU; UC.

Work Experience (WORK)

270 Occupational Work Experience

54–216 hours other, 1-4 units

Grade Only

Limitation on Enrollment: Must obtain a permission number from Work Experience Coordinator for enrollment.

This course provides on-the-job learning experiences for students employed in a job or internship related to an occupational major. Students develop workplace competencies, critical thinking skills, and problem solving abilities through the creation and achievement of job-related behavioral learning objectives. One unit of credit may be earned for every 54 hours of work experience. A maximum of fourteen credit hours for all work experience subject areas may be earned during one enrollment period. This course is intended for students majoring or interested in an occupational field of study. AA/AS; CSU.

(FT) = A field trip may be required for this course.

AA/AS = Associate Degree Applicable

CSU = California State University Applicable

UC = University of California Applicable

Milestone formerly referred to as Skill Level

San Diego City College Community

At-A-Glance

Page

San Diego City College Faculty.....	556
Faculty/Administrators Emeritus.....	564
Contract Classified Professionals.....	566

**SAN DIEGO CITY COLLEGE
FACULTY/ADMINISTRATORS**
2024–2025
ACEDO, Christopher

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ADEN, Ahmed (Rasheed)

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University

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State University

 Teaching Credential, University
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AL ANI, Mohammed

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 M.S., University of Southern
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ARMSTRONG, Dometrives

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B.S.N., University of Phoenix

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Wilson, Bobby, Administrator
Wilson, Kenneth, Faculty
Wisehart, Gary, Faculty
Witt, Betty, Faculty
Witt, John, Faculty
Wong, Raymond M., Faculty
Worley, Ronald C., Faculty
Wright-Howard, Debra,
 Administrator
Young, Dwight, Faculty

**CONTRACT CLASSIFIED
PROFESSIONALS****Abbott, Sylvette**

Senior Student Services
Assistant, Financial Aid

Aguilera Arredondo, Jahaziel I

Program Support Technician,
Mental Health Counseling/
Student Health Center
B.S., University of California, San
Diego

Antonio, Alyssa

Student Services Technician,
Veterans

Arellano, Bianca E.

Student Services Technician,
HUBU, Puente, Umoja
A.A., San Diego City College
B.A., University of California,
Berkeley
M.A., University of San Diego

Arreola, Arturo

Sales Clerk, Bookstore

Arriola, Paolo Joseph

Student Assistance Technician,
Financial Aid

Avila-Franco, S. Charlene

Administrative Assistant III,
Title V

Baca, Juana

Student Services Assistant,
EOPS

Bakit, Lydia

Supervisor, Business Office
Support, Business Services

Balintec, Regie

Supervisor, Accounting,
Student Accounting

Banzon-Tuazon, Alvin B.

Custodian, Facilities

Bassa, Overath

Custodian, Facilities

Bayisa, Megersa

Instructional Lab Technician,
ILC
A.A., San Diego City College
B.A., San Diego State University
M.Ed., Alliant International
University
M.H.A., National University
Ed.D., Alliant International
University

Beck, Gary

Broadcast Operations
Specialist, KSDS

Benjamin, Juliet

Senior Account Clerk,
Accounting

Bigley, Justin

Administrative Assistant III,
Professional Development

Blas, Francisco

Student Services Assistant,
Enrollment Services

Bonner, Jacqueline

Custodian, Facilities

Boyce, John

Occupational, Environmental
Health & Safety Coordinator,
Business Services

Broussard, Ginger

Administrative Technician
- Civic Center, Business
Services

Brown, Eugene

Instructional Assistant,
Graphics

Browne, Darwin

Senior Student Services
Assistant, DSPS

Burch, Ashley

Program Support Technician,
NextUP/EOPS
B.A., Cal Poly Pomona

Calbeck, Katrina

Custodian, Facilities

Canales, Ivan

Senior Tutor, Tutoring Center

Carroll, Brittney

Research and Planning Analyst
B.A., University of California,
Irvine
M.S., San Diego State University

Castellanos, Wendy L.

Senior Tutor, English Center

Castro-Lopez, Gustavo

Custodian, Facilities

Castro Guerrero, Gustavo

Custodian, Facilities

Catarius, Jeremiah

Grounds Crewleader, Facilities

Chandler, Susan

Administrative Assistant III,
Nursing Education

Chatfield, Craig H.

Broadcast Engineer, Radio and
Television

Chau, Helen

Sales Clerk, Bookstore

Chea, Melissa

Instructional Lab Technician,
TSG

Chen, Victor

Web Designer/Programmer
B.S., M.S., University of
California, San Diego

Cheshire, Debbie

Lead Food Service Worker, Food
Services

Chhabra, Devika (Deka)

Instructional Learning
Technician, DSPS

Cordeiro, Alberto DaSilva

Micro Specialist Supervisor, TSG

Corro Flores, Magaly

Student Support Services
Officer

Custodio, Kathleen

Research Associate,
Institutional Effectiveness
and Research
B.A., University of Southern
California
M.A., University of California,
Los Angeles

Da Rosa, Adam

Custodian, Facilities

Da Rosa, Rogerio

Custodian, Facilities

Davis, Lilia

Student Services Technician,
Enrollment Services
M.A., Point Loma Nazarene

Davis, Sheila

Student Services Technician,
Financial Aid

D'Ambro, Joseph

Senior Student Services
Assistant, Student Transition
Services

Day, Alan Jr.

Custodian I, Facilities

de Alba, Ana

Production Services Assistant,
Digital Print Production and
Mailroom Services

- De Alba, Roberto**
Gardener/Groundskeeper,
Facilities
- Devers, Stephen A.**
Custodian, Facilities
- Dhanifu, Ronald**
Broadcast Operations
Specialist, KSDS
- Disnew, Marie**
Administrative Assistant I –
Instruction, Business
- Dolfo, Jessica**
Student Services Technician,
Welcome Center
B.A., Arizona State University
M.A., Point Loma Nazarene
University
- Dominguez,, Nydia**
Student Support Services
Officer
- Donato, Javier G.**
Custodian, Facilities
- Dunham, Jerry L.**
Custodian, Facilities
- Duong, Son**
Instructional Lab Technician,
Electronics
- Dupard, Edwidge**
Student Services Technician,
Welcome Center
- Ebner, Leslie**
Administrative Technician,
KSDS
- Eddington, Bernetta**
Senior Account Clerk,
Accounting
- Erbacher, Teresa**
Administrative Assistant I,
Enrollment Services
- Fernandez, Patricia**
Supervisor, Digital Print
Production and Mailroom
Services
- Fernandez, Richard**
Instructional Assistant,
Library
- Flores, Eric M.**
Senior Student Services
Assistant, Welcome Center
- Fox, Chad**
Lead Broadcast Operations
Specialist, KSDS
- Franklin, Todd**
Custodian, Facilities
- Franklin, Troy**
Custodian, Facilities
- Frost, Valerie**
Administrative Assistant III,
Facilities
- Garcia, Iramarie**
Administrative Assistant IV,
President's Office
- Garcia, Javier**
Custodian, Facilities
- Garduno, Elena**
Senior Student Services
Assistant, Enrollment
Services
A.A., San Diego City College
- Garibay, Susanna**
Student Service Assistant,
Financial Aid
- Gomez, Gustavo**
Athletic Equipment Attendant,
Athletics
- Gonzales, Gabriella**
Instructional Lab Technician,
Child Development
B.A., California State University,
Chico
- Gonzales, Lydia**
Administrative Assistant V,
Instruction
A.A., San Diego City College
- Gonzalez, Daniel**
Instructional Support
Supervisor, Library
- Goodman, Alan**
Administrative Technician,
KSDS Radio/TV Station
- Gradilla, John**
Student Services Assistant,
Counseling
A.S., San Diego City College
B.S., M.S., National University
- Green, Tammy**
Sales Clerk, Bookstore
- Guardado, Carolina**
Student Services Supervisor I,
Veterans Service Center
- Gumapas, Cesar**
Information Officer
B.A., San Diego State University
- Gutierrez, Rosangela**
Instructional Lab Technician,
Child Development
A.S., San Diego City College
B.A., Pacific Oaks College
- Guzman, Salvador**
Administrative Technician,
Business Services
- Habeck, Kimberly D.**
Athletic Equipment Attendant,
Athletics
- Hamilton, Jacqueline D.**
Custodian, Facilities
- Hammond, Jamie**
Student Services Technician,
Financial Aid
- Hardwick-Cervantes III, Lawson**
Student Support Services
Officer, Title V
- Hernandez, Abel**
Gardener/Groundskeeper,
Facilities
- Hernandez, Rachel**
Student Services Assistant,
Enrollment Services
- Hicks, Deanna**
Administrative Assistant I,
Admissions
- Hill, Josolyn**
Student Services Supervisor,
Counseling, Assessment and
Evaluation
A.A., San Diego Mesa College
B.S., MBA, Ed.D., Alliant
International University
- Holloway, Joan**
Senior Food Service Worker
- Hurst, Robert**
District Network Specialist
- Ignacio, Jennifer**
Media Technician, Library
- Isidro, Emmanuel**
Senior Accounting Technician,
Student Accounting
- Iwuaba, Cyprian**
Multimedia Specialist,
Communications
- Jackson, Terri**
Student Services Technician,
EOPS
- Jenkins, Jamie**
Athletic Trainer, HES Program

Johnson, Nicolas

Student Services Technician
Admissions

Johnson, Michelle Y.

Administrative Assistant IV,
School of Health, Exercise
Science, and Athletics

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Clerical Assistant, Tutorial/
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Senior Student Services
Assistant, Enrollment
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Kennemer, Susana

Student Assistant Technician,
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Administrative Technician,
President's Office

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Facilities

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Monsen, Roseana

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Child Development

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Gardener/Groundskeeper,
Facilities

Morgan, Byron

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Strong Workforce

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Student Accounting

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Sanchez, Jose

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CTE Strong Workforce

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Physical Science

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Admissions

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MACT

Silva, Albert

Student Assistance Technician,
Financial Aid

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Solis, Nicolas

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B.A., Cal State Fullerton
M.A., San Diego State University

Steininger-Paxton, Laura J.

Instructional Lab Technician,
Biology

Stephens, Peter

Custodian, Facilities

Stewart, Jr., Samuel L.

Instructional Lab Technician,
TSG

Takehita, Haruko

Senior Account Clerk, Student
Accounting

Taylor, Joan L.

Production Services Assistant,
Digital Print Production and
Mailroom Services

Thibeault, Cecilia

Program Support Technician,
Title V

Thibeault, Richard

Network Specialist, TSG

Tirpak, Andrew

Athletic Groundskeeper, Health,
Exercise Science & Athletics

Titus, Joseph

Custodian, Facilities

Tong, Nancy

Student Services Assistant,
EOPS

Torres, Brenda

Student Services Technician,
Extended Opportunity
Programs & Services (EOPS),
Cooperative Agencies
Resources for Education
(CARE)
A.A., San Diego City College

Torres Alvarez, Natali

Senior Accounting Technician,
Business Services

Tubon, George

Instructional Lab Technician,
Photography

Valdes Rankin, Francesca

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Student Affairs

Valdez, Cecilia

Senior Student Services
Assistant, Financial Aid

Valentine, Rich

Graphic Artist/Photographer,
Communications Office
B.A., The Art Institute of
Pittsburgh

Van Saanen, Desiree

Administrative Assistant V,
Student Services
A.A., San Diego City College
A.A., San Diego Mesa College

Vargas, Carolina

Student Services Technician,
Veterans

Vargas, Elizabeth

Director, Upward Bound
B.S., Bellevue University
M.A., Point Loma Nazarene
University

Vazquez, Jasmine

Student Services Assistant,
Enrollment Services

Vazquez, Rebecca

Instructional Lab Technician,
Chemistry

Vidrio, Carlota

Administrative Assistant IV,
School of Business,
Information Technology,
Cosmetology, Engineering,
and Trades

Vilaboy, Itza

Student Services Assistant,
Financial Aid

Villaescusa, Carlos

Gardener/Groundskeeper,
Facilities

Washington, Maria

Custodian, Facilities

Welton, William

Facilities Custodial
Supervisor II, Facilities

Wilmer, Robert

Custodian, Facilities

Woods, DeAndrea

Student Services Assistant,
Counseling

Woodward, Kathleen

Administrative Technician,
Mathematics

Xu, Yifan (Joseph)

Student Assistant Technician,
Financial Aid
B.A., University of California,
San Diego

Xiong, Trusty

Student Services Technician
Financial Aid
B.S., San Diego State University

Yeager, Andrea

Senior Student Services
Assistant, Placement/
Outreach

Zhang, Erica

Instructional Lab Technician,
Biology

Index

A

Academic Calendar.....	9	Nondiscrimination Policy.....	90
Fall Semester	9	Petition for Exceptions.....	114
Intersession.....	9	Responsibility for Meeting Requirements.....	54
Spring Semester.....	9	Smoking Regulation.....	91
Summer Session.....	10	Statement of Open Courses.....	54
Academic Dismissal.....	58	Student Grievance Procedure.....	93
Academic Freedom.....	5	Student Right to Know	89
Academic Freedom and Freedom of Expression	5	Time/Schedule Conflicts	22
Academic Information.....	54	Title IX. Gender Discrimination and Sexual Harassment	90
Class Attendance	22	Transcripts of Prior Academic Credit	61
Dean's List.....	54	Transcripts of Record.....	60
Distance Education	55	Transfer of Credits.....	61
Grade Challenge	57	Academic Renewal Without Course Repetition	59
Grading System.....	56	Academic Requirements.....	97
Honors	54	Additional College Degree.....	116
Off-Campus Programs	55	American Institutions/California Government.....	101
SDCCD Online Learning Pathways	55	Certificate of Achievement	114
Study Abroad Programs.....	55	Certificate of Performance	114
Work Experience	55	District Requirements	101
Academic Information and Regulations	53	General Education Defined.....	106
Disclaimer.....	53	General Education Requirements.....	106
Industry Recognized Credentials.....	87	Grade Point Average (GPA) and Minimum Grade Requirements.....	101
Student-Created Portfolio Assessment	87	Graduation	114
Academic Probation.....	58	Academic Transcripts.....	60
Academic Regulations.....	59	Acceptance and Application of Military Credit	87
Academic Freedom.....	5	Accounting	
Academic Renewal Without Course Repetition	59	Courses.....	331,332
Audit Policy.....	22	Accreditation.....	5
Consumer Information	89	Disclaimer.....	6
Copyright Responsibility.....	92	Additional College Degree.....	116
Course Repetition - Lapse of Time.....	60	Additional Fees.....	29
Course Repetition Policy.....	59	Address Change.....	25
Credit for Prior Learning.....	61	Administration of Justice	
Credits from Other Regionally Accredited Institutions	61	Courses.....	334
Debt Owed to the College.....	29	Administrative and Supervisory Personnel	4
Disability Support Programs and Services (DSPS) Repeat.....	60	Admission Application	18
Drug Abuse and Alcohol Prevention Program (DAAPP)	91	Admission Programs	122
Elder and Dependent Adult Abuse	92	Admission Requirements	27
Exclusion from Classes.....	89	Admissions and Registration	17
Free Speech	90	Admission Application.....	18
Gender Equity	90	Apply for Financial Aid.....	19
Honest Academic Conduct	54	Apply Online.....	19
Mandated Training.....	60	Basic Skills Unit Limit.....	23
Minor Children on Campus.....	89	Change of Name, Mailing or Email Address.....	25
		Educational Plan	20
		Exclusion from Classes.....	23
		Fees.....	28

Follow up with a counselor	20	Audit Policy.....	22
Important Reminder.....	19	Awarding of Degrees or Certificates.....	115
International Students.....	27	B	
Orientation.....	19	Basic Skills Unit Limit.....	23
Refunds	30	Behavioral Sciences	
Register and Pay.....	20	Community Health Work	259
Registration.....	21	Biology	177
Residency	25	Courses.....	357
Social Security Number	19	Black Contractor's Association Studies	
Student Success and Support Program.....	18	Courses.....	360
Advanced Placement Test	63	Black Studies	180
Agriculture	157	Courses.....	363
Courses.....	335	Board of Trustees	3
Air Conditioning, Refrigeration, and		Bookstore	32
Environmental Control Technology	160	Business	
Courses.....	336	Courses.....	366
Alcohol and Other Drug Studies.....	165	Business Studies	182
Courses.....	341	Real Estate Emphasis.....	187
American Institutions/California Government	101	Small Business Management Emphasis	187
American Sign Language/Interpreting		C	
Courses.....	344	Cafeteria.....	46
Anthropology		Calendars.....	9
Courses.....	346	Cal Grants.....	40
Program.....	167	CalWORKs/TANF Believe Program Training,	
Apply for Financial Aid	19	Education and Service	32
Apply for Graduation	114	Campus Bookstore.....	32
Apply Online	19	Campus Life	
Apprenticeship.....	317	Associated Students Membership.....	46
Honeywell Tool and Die.....	318	Athletics	32
San Diego City Civil Service		CityWorks.....	34
Communications Technician.....	319	Cooperative Agencies Resources for	
San Diego Gas and Electric Company	320	Education (CARE)	36
San Diego Transit Electronic Technician.....	321	Student Organizations.....	46
San Diego Trolley	322	Catalog Rights	114
Solar Turbines, Inc.....	324	Certificate of Achievement	114
Arabic		Certificate of Performance.....	114
Courses.....	348	Chafee Grant Program	40
Art - Fine Art.....	170	Challenge Procedures.....	25,328
Courses.....	349	Change of Name, Mailing or Email Address	25
Assembly Bill (AB) 540	26	Chemistry.....	187
Associate Degree.....	98	Courses.....	369
Additional College Degree	116	Chicana and Chicano Studies	188
Major/Area of Emphasis Requirements	99	Courses.....	374
Minimum Units in Residence	98	Child Development	189
Requirements.....	100	Courses.....	376
Associate Degree Initiative	115	Children on Campus.....	89
Associated Students Government (ASG)	45	Chronology.....	12
Associated Students Membership	46	City Scholars Program.....	32
Astronomy	176	City Times Media, Student Journalism.....	33
Courses.....	356	CityWorks	34
Athletics.....	32		
Physical Education Classes/Intercollegiate			
Sports Disclaimer	32		

Class Attendance.....	22	Dean's List.....	54
Classified Professionals.....	566	Debt Owed to the College.....	29
College History.....	12	Degree Curricula and Certificate Programs.....	143
College Level Examination Program (CLEP).....	75	Design.....	215
College Newspaper.....	33	Courses.....	405
College Police Department.....	46	Digital Journalism.....	218
Emergency Calls.....	47	CityWorks.....	34
Parking.....	47	College Newspaper.....	33
Police Escort and Related Services.....	47	Courses.....	405
Vehicle Immobilization/Booting/Towing/ Hold.....	47	Legend Magazine.....	34
Communication Studies.....	193	Diplomas.....	115
Courses.....	381	Disability Studies (DSST).....	409
Multimedia.....	245	disAbility Support Programs and Services.....	34
Community College Enrollment Fee.....	28	Disability Support Programs and Services Courses.....	409
Community Health Work.....	259	Disability Support Programs and Services (DSPS) Repeat.....	60
Complaint Processes.....	94	Disabled Veterans.....	49
Computer and Information Sciences Courses.....	384	Disclaimer.....	16,53
Computer Business Technology.....	196	Distance Education.....	55
Courses.....	383	District Administration.....	3
Conduct, Volunteer/Visitor.....	93	Dramatic Arts Courses.....	411
Conflict Resolution.....	207	Drop/Withdrawal from Classes.....	23
Courses.....	387	Drug Abuse and Alcohol Prevention Program (DAAP).....	91
Construction Systems (Construction Trades) Courses.....	388	E	
Consumer Information.....	89	Early Education Center.....	34
Continuous Enrollment.....	115	Economics.....	220
Cooperative Agencies Resources for Education (CARE).....	36	Courses.....	420
Copyright Responsibility.....	92	Education Courses.....	420
Cosmetology.....	209	Educational Cultural Complex (ECC)-Off Campus Programs.....	55
Courses.....	390	Educational Plan.....	20
Counseling Services.....	33	Elder and Dependent Adult Abuse.....	92
Course Descriptions.....	327	Electricity.....	219
Course Identification Numbering System (C-ID)....	141	Courses.....	423
Course Numbering System.....	328	Programs.....	221
Course Repetition - Lapse of Time.....	60	Electromechanical Engineering Technology.....	223
Course Repetition - Limitations on Active Participatory Courses.....	59	Electronic Manufacturing*.....	277
Course Repetition Policy.....	59	Electronics.....	225
Credit by Examination.....	83	Electronic Systems Courses.....	426
Credit for Prior Learning.....	61	Email Address Change.....	25
Credits from Other Regionally Accredited Institutions.....	61	Emergency Calls.....	47
CSU U.S. History, Constitution, and American Ideals Certification.....	124	Energy and Geo-Environmental Engineering Programs.....	229
D		Energy and Geo-Environmental Engineering (EGEE) Courses.....	422
Dance.....	212	Engineering.....	230
Courses.....	394,396		
DANTES Subject Standardized Test (DANTES/DSST).....	80		

Courses.....	431	Additional Fees.....	29
Engineering Technology		Baccalaureate Degree Program Fee.....	29
Air Conditioning, Refrigeration, and		Enrollment Fee.....	28
Environmental Control Technology		Health Services Fee.....	29
Courses.....	336	Nonresident Tuition.....	29
Courses.....	434	Refunds.....	30
Electricity		Student Representation Fee.....	29
Courses.....	423	Transcript of Record.....	29
Electromechanical Engineering		Film, Journalism, and Media Production	
Technology.....	223	Programs.....	241
Electronics.....	225	Film, Journalism, and Media Production	
Electronic Systems		(FJMP)	
Courses.....	426	Courses.....	471
Machine Technology.....	274	Financial Aid.....	37
Courses.....	499	Application.....	37
Manufacturing Engineering Technology.....	276	Awards.....	37
Courses.....	501,512	Cal Grants.....	40
Pre-Engineering Technology.....	231	Chafee Grant Program.....	40
English.....	233	Eligibility.....	37
Courses.....	438	Enrollment Fee Assistance: California College	
English Center.....	48	Promise Grant - CCPG.....	38
English Language Acquisition (ELAC).....	35	Federal Direct Plus Loan.....	42
Courses.....	435	Federal Pell Grant.....	39
English Proficiency Requirements.....	28	Federal Supplemental Educational Opportunity	
Enrollment Fee Assistance: California College		Grant (FSEOG).....	39
Promise Grant – CCPG.....	38	Federal Work Study.....	40
Evaluations.....	35	Financial Aid Programs Available.....	38
Exceptions to Residency Requirements.....	26	National Student Clearinghouse.....	42
Exclusion from Classes.....	23,89	Scholarships.....	40
Exercise Science.....	237	Student Loans.....	41
Courses.....	444	Student Success Completion Grant.....	40
Theory.....	467	William D. Ford Federal Direct Loan Program....	41
Personal Trainer.....	239	Freedom of Expression.....	6
Extended Opportunity Programs and		Free Speech.....	90
Services (EOPS).....	35	French	
Cooperative Agencies Resources for		Courses.....	478,479
Education (CARE).....	36	Programs.....	250
How to Apply.....	36	Futures Studies.....	251
Summer Readiness Program.....	36	G	
The NextUp Program.....	36	Gender Discrimination and Sexual Harassment, Title	
What is EOPS?.....	35	IX, Prohibiting.....	90
Extended Studies -- see "Off-Campus Programs".....	55	Gender Equity.....	90
F		Gender Studies	
Faculty.....	556	Courses.....	480
Fall Semester.....	9	General Education.....	251
Federal Direct Loan Program, William D. Ford.....	41	General Education Requirements.....	106
Federal Direct Plus Loan.....	42	General Information.....	11
Federal Pell Grant.....	39	Chronology.....	12
Federal Supplemental Educational Opportunity		Disclaimer.....	16
Grant (FSEOG).....	39	History.....	12
Federal Work Study.....	40	Institutional Learning Outcomes.....	14
Fees.....	28	Institutional Priorities.....	15

Mission	15	Humanities	
San Diego City College Foundation.....	13	Courses.....	491
Statement of General Education Philosophy ...	14	Human Services.....	259
Student Learning Outcomes	16	Courses.....	489
Generic Course Information.....	329	I	
Geographic Information Systems		Independent Learning Center.....	43
Courses.....	480	Independent Study.....	330
Geography.....	252	Individualized Instruction	330
Courses.....	481	Information, Network, and Web Technologies	
Geology.....	254	Courses.....	492
Courses.....	482	Institutional Learning Outcomes.....	14
German.....	256	Institutional Priorities.....	15
Courses.....	483	International Baccalaureate (IB) Credit.....	72
Grade Challenge.....	57	International Students (F-1 Visa).....	27
Grade Point Average	101	Academic Achievement	27
Grading System.....	56	Admission Requirements.....	27
Excused Withdrawal.....	57	English Proficiency Requirements.....	28
Incomplete.....	56	Financial Resources.....	28
In Progress.....	57	General Information	27
Military Withdrawal.....	57	Health Clearance.....	28
Pass/No Pass	56	Housing.....	28
Graduation.....	114	Visa Students (other than F-1).....	28
Additional College Degree.....	116	Intercession	9
Apply for Graduation.....	114	Introduction to Manufacturing.....	278
Associate Degree Initiative.....	115	Italian	
Awarding of Degrees or Certificates.....	115	Courses.....	495
Catalog Rights.....	114	Programs.....	263
Continuous Enrollment	115	J	
Diplomas.....	115	Journalism	
Graduation with Distinction	115	Courses.....	496
Graduation with Distinction.....	115	L	
Graduation with Latin Honors (Baccalaureate		Labor Studies.....	264
Degrees Only)	115	Courses.....	496
Guarantee Admission Programs	122	Lack of Progress Dismissal.....	58
H		Lack of Progress Probation	58
Health Center.....	46	Languages	
Health Center Program.....	46	American Sign Language/Interpreting	
Student Accident Insurance/Claims	46	Courses	344
Health Education		Arabic	
Courses.....	484	Courses	348
Health Sciences		French	
Courses.....	485	Courses	478,479
Health Services Fee.....	29	German	
Heavy Equipment Operator		Courses	483
Courses.....	485	Italian	
History.....	257	Courses	495
Courses.....	486	Russian	
Homeless.....	36	Courses	546
Honest Academic Conduct.....	54	Spanish.....	310
Honeywell Tool and Die Apprenticeship	318		
Honors.....	54		
HUBU Learning Community.....	42		

Courses	551	NextUp Program	36
Learning Resource Center (LRC)	42	Nondiscrimination Policy	90
Independent Learning Center	43	Nonresident Students.....	26
Library.....	42	Nonresident Tuition.....	29
Office of Classroom Technology		Nursing Education	285
Management	43	Courses	519
Learning Resources		Licensed Vocational Nurse to Registered	
English Center.....	48	Nurse (Advanced Placement)	288
Mathematics Center	48	Licensed Vocational Nurse to Registered	
Tutorial/Learning Center.....	48	Nurse, Thirty-Unit Option -	
Legend Magazine.....	34	Licensure Only.....	289
Liberal Arts and Sciences.....	265	Registered Nurse Program (Generic)	287
Language Arts and Humanities.....	265	Nutrition	
Physical and Earth Sciences Specialization	269	Courses.....	524
Scientific Studies.....	267		
Social and Behavioral Sciences.....	270	O	
Visual and Performing Arts	265	Occupational Work Experience	388
Library.....	42	Courses	553
Library Fees.....	29	Off-Campus Programs	55
Library Science		Office of Classroom Technology Management	43
Courses	498	Online Class Restrictions.....	22
		Online Class Schedule	22
M		Online, Learning Pathways	55
Machine Technology	274	Online Registration.....	21
Courses.....	499	Orientation	19
Mandated Training.....	60	Outreach.....	44
Manufacturing Engineering Technology	276		
Courses.....	501,512	P	
Marketing		Parking	47
Courses	501	Pass/No Pass Grading Policy.....	57
Mathematics	281	Peace Studies	
Courses.....	506	Courses	524
Mathematics Center	48	Performing Arts.....	44
Matriculation (see Student Success and Support		Personal Growth	
Program)	18	Courses.....	524
Mechanical Design Technology	280	Petition for Exceptions	114
Mental Health Counseling	43	Philosophy	
Mental Health Work Certificate	303	Courses.....	526
MESA (Mathematics, Engineering, Science		Programs.....	290
Achievement).....	43	Photography	293
Military Withdrawal	57	Courses.....	529
Mission	15	Physical Education	237
Multimedia	245	Physical Education Classes/Intercollegiate	
Multiple Degrees	116	Sports Disclaimer.....	32
Music.....	284	Physical Science	
Courses.....	516	Courses	536
Music, Commercial		Physics.....	297
Courses.....	513	Courses.....	537
		Placement	19
N		Police Escort and Related Services.....	47
Name Change.....	25		
National Student Clearinghouse	42		

Policy 5500, Student Rights, Responsibilities, Campus Safety and Administrative Due Process.....	93	Reclassification	26
Policy Prohibiting Sexual Harassment.....	90	Status	25
Political Science	299	Responsibility for Maintaining Accurate Registration.....	22,56
Courses.....	539	Responsibility for Meeting Requirements.....	54
Pre-Engineering Technology.....	231	Return of Title IV Funds	38
Prerequisites, Corequisites, Limitations on Enrollment and Advisories	25	Russian Courses	546
Challenge Procedures	25	S	
President’s Message	2	San Diego City Civil Service Communications Technician Apprenticeship.....	319
Priority Enrollment System	24	San Diego City College Community.....	555
Programs of Instruction		San Diego City College Foundation.....	13
Challenge Procedures.....	328	San Diego Gas and Electric Courses	546
Generic Course Information	329	San Diego Gas and Electric Company Apprenticeship	320
Independent Study.....	330	San Diego Promise Program.....	45
Individualized Instruction.....	330	San Diego Transit Electronic Technician Apprenticeship	321
Service Learning.....	329	San Diego Trolley Apprenticeship.....	322
Supervised Tutoring	329	Courses.....	549
Work Experience	329	Scholarships	40
Psychology.....	302	SDCCD Online Learning Pathways.....	55
Courses.....	540	Service Animals.....	34
Public Administration		Service Learning	329
Courses.....	544	Community.....	329
Puente Project	44	Elementary and Junior High School Projects	329
R		High School Projects	329
Readmission After Dismissal	58	On Campus	330
Real Estate.....	250	Sexual Harassment, Policy Prohibiting.....	90
Courses.....	544	Small Business Entrepreneurship Program.....	45
Programs.....	305	Small Business Management	187
Refunds.....	30	Smoke Free Campus, San Diego City College.....	91
Register and Pay	20	Smoking Regulation.....	91
Registration	21	Social Security Number.....	19
Adding Classes.....	22	Social Work	306
My Planner	22	Sociology.....	307
Online Class Restrictions.....	22	Courses.....	549
Online Class Schedule.....	22	Solar Turbines Incorporated Apprenticeship	324
Priority Enrollment System.....	24	Courses.....	551
Study Load Limit.....	23	Spanish.....	310
Time/Schedule Conflicts	22	Courses.....	551
Wait List.....	22	Special Topics Courses.....	329
Requirements for additional college degree.....	116	Spring Semester.....	9
Requisites	328	Standards of Academic Progress	58
Residency	25	Academic Dismissal	58
Appeals.....	26	Academic Probation	58
Assembly Bill (AB) 540.....	26	Lack of Progress Dismissal.....	58
Exceptions to Residency Requirements	26	Lack of Progress Probation.....	58
Factors Considered to Determine Residency.....	26	Readmission After Dismissal.....	58
False Information.....	27		
Limitation of Residency Rules	27		
Nonresident Students.....	26		

Statement of General Education Philosophy	14	Transfer/Career Center.....	47
Statement of Open Courses	54	Umoja Learning Community.....	49
Steps to Student Success.....	18	Veterans and Service Members.....	49
Student Accident Insurance/Claims	46	Welcome Center.....	51
Student Accounting	45	Student Success and Support Program	18
Student Affairs/Campus Life	45	Admission Application.....	18
Student Grievance Procedure.....	93	Apply for Financial Aid.....	19
Student Health Center.....	46	Educational Plan	20
Student Organizations	46	Follow up with a counselor.....	20
Student Records, Release, Correction and Challenge.....	94	Important Reminder.....	19
Student Responsibilities, Maintaining Accurate Registration.....	22	Orientation.....	19
Student Rights, Responsibilities, Campus Safety and Administrative Due Process	93	Register and Pay.....	20
Student Right to Know.....	89	Steps to Student Success.....	18
Student Services.....	45	Student Success Completion Grant.....	40
Associated Students Government (ASG).....	45	Study Abroad Programs.....	55
Athletics	32	Study Load Limit.....	23
CalWORKs/TANF Believe Program Training, Education and Service.....	32	Summer Readiness Program (SRP).....	36
City Scholars Program.....	32	Summer Session	10
CityWorks.....	34	Supervised Tutoring	329
Cooperative Agencies Resources for Education (CARE).....	36	Support Services.....	46
Counseling Services.....	33	Cafeteria.....	46
disAbility Support Programs and Services (DSPS).....	34	Campus Bookstore.....	32
Early Education Center	34	College Police Department.....	46
Emergency Calls.....	47	Emergency Calls.....	47
English Language Acquisition (ELAC)	35	Parking.....	47
Evaluations.....	35	Police Escort and Related Services	47
Extended Opportunity Programs and Services (EOPS)	35	Transportation for Students with Disabilities	47
Federal Work Study	40	Vehicle Immobilization/Booting/Towing/ Hold	47
Financial Aid	37	Support Services, Programs and Disability Discrimination Procedures for Students with Disabilities	88
HUBU Learning Community	42	Sustainability	311
Learning Resource Center (LRC).....	42	Courses.....	553
Mental Health Counseling.....	43	T	
MESA Program	43	Theatre	312
Outreach	44	Time/Schedule Conflicts.....	22
Performing Arts.....	44	Title IX. Prohibiting Gender Discrimination and Sexual Harassment.....	90
Physical Education Classes/Intercollegiate Sports Disclaimer	32	Transcripts of Prior Academic Credit	61
Puente Project	44	Transcripts of Record.....	60
San Diego Promise Program.....	45	Transfer/Career Center	47
Scholarships.....	40	University Transfer/Career Services.....	47
Small Business Entrepreneurship Program	45	Work Experience Program	51
Student Accounting.....	45	Transfer Guide	117
Student Affairs/Campus Life.....	45	Guarantee Admission Programs	122
Student Health Center	46	Transfer of Credits	61
Student Organizations.....	46	Transfer Programs	118
Support Services.....	46	Additional Requirements for CSU Graduation	133

Certification of CSU General Education	
Breadth Requirements	133
Transportation for Students with Disabilities	47
Tuition, Nonresident.....	29
Tuition, Resident.....	28
Tutorial/Learning Center	48
U	
Umoja Learning Community.....	49
University Transfer/Career Services	47
V	
Vehicle Immobilization/Booting/Towing/Hold	47
Veteran Dependent Exemption	49
Veterans and Service Members.....	49
Disabled Veterans	49
Liability	49
Monthly Housing Allowance	50
Number of Units Required	50
Readmission After Termination Status.....	50
Repeated Classes	50
Transcripts.....	50
Veteran Dependent Exemption.....	49
Veterans Academic Progress	50
Veterans Center Military Service Connected	
Benefit Programs.....	49
Veterans Service Center	50
Withdrawal/Change of Classes	50
Work Experience	50
Visa Students (F-1).....	27
Visa Students (other than F-1)	28
Volunteer/Visitor Conduct Expectations	93
W	
Wait List.....	22
Welcome Center	51
William D. Ford Federal Direct Loan Program	41
Withdrawal.....	56
Excused Withdrawal.....	57
Military Withdrawal.....	57
Withdrawal from Classes	23
Work Experience	55
Courses	553
Work Experience Program.....	51
Work Study, Program	40

SAN DIEGO CITY COLLEGE CAMPUS DIRECTORY



A A BUILDING OFFICES

- A-104 Accounting
- A-105 Communications Office
- A-106 Learning Department
- A-107 Academic Support Program & Services (ASPS)
- A-108 DSDP High Tech Center (HTC)
- A-109 DSDP Test Proctoring
- A-110 Enrollment Services, Admissions, Records, Veterans Affairs
- A-111 DSDP Center, Health
- A-112 Financial Aid
- A-113 VAP
- A-114 Instructional Services, Office of the President
- A-115 Student
- A-116 San Diego Phoenix
- A-117 President's Office
- A-118 Student Health Center, Student Health Clinic, Mental Health Counseling
- A-119 Student Services, Office of the Vice President
- A-120 Student Success Programs Center, Parents, Umoja & HUBU
- A-121 Student Success Programs Center, Parents, Umoja & HUBU
- A-122 Transfer Career Center, Evaluations
- A-123 Student Services, Office of the Vice President
- A-124 Student Success Programs Center, Parents, Umoja & HUBU
- A-125 Transfer Career Center, Evaluations
- A-126 Upward Bound
- A-127 Welcome Center



LEGEND AND BUILDING CODES

A See 'A BUILDING OFFICES'	EEC EARLY EDUCATION CENTER	S SCIENCES (Life Sciences, Physical Sciences, Penetrants, Smart Market, DSDP Cultural Center and STEAM Center)
AH THE CONSTANCE M. CARROLL, PH.D., ARTS AND HUMANITIES Art Galleries, Black Box Theatre, Center for the Liberal Arts, City Works, Communication Studies, E-AC, English, Fine Art, Graphic Design, Honors, Labor Studies, Languages, DSDP Cultural Center and OLMANER Resource Center, World Cultures	L ACADEMIC SUCCESS CENTER CAMPUS, City Lines, Contemplation Room, English Center, Institutional Effectiveness, KIOSK Math Center, ProMath, DSDP Cross Cultural Center and Title V, Tutorial Center	V ADMINISTRATIVE SERVICES Office of the Vice President, Business Services, HR/HR & Registration, Center for Applied Cognitive Technology (CACT), CNC Machining, CAD/CAM, Digital Print Production & Markroom, Electronics, Electronic Technology & Engineering, Manufacturing, Engineering & Technology, MBA Program, Recruiting & Selection, Sustainable Agriculture, Technical Support Center, Basic Needs Center, Knightly Food Pantry, Fashionable Clothing Boutique
BT BUSINESS & TECHNOLOGY Business & Computer Systems, Business Studies, CTLA, Digital Journalism, Humanities, Small Business Entrepreneurship Program, Business Resource Center, Philosophy, Strong Workforce, Work Experience	M STUDENT AFFAIRS CSA, Facilities, Scholarships, Student Clubs, DSDP Cultural Center and Computer Center, Veterans Service Center	CTC CAREER TECHNOLOGY CENTER VAP, Campus Police (V-100), Cosmetology, Nursing, Photography
C THE CENTER FOR MEDIA & PERFORMING ARTS Dance, Drama & Theatre, Music, Radio, TV, and Film	MS MATHEMATICS & SOCIAL SCIENCES Behavioral Sciences, Bookstore (Liberty), C-Store and Espresso Station, Corporate Education Center, Life, Sci, Mathematics, Military Education, Social Sciences	
H SAVILLE THEATRE	P ATHLETICS, EXERCISE SCIENCE, AND HEALTH	
MS CAMPUS BOOKSTORE, CITY COMMONS, CAFE AT CITY, KNIGHT MARKET	PH FITNESS CENTER (PTCFC)	
	HW HARRY WEST GYM (HWGYM)	
	LR LEARNING RESOURCE CENTER Library, Independent Learning Center, Multiservice Center, CitySite	

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- Emergency Call Box
- AID Locations (Generally located near elevators or building entry points.)
- Handicap Parking
- EVAC Chair
- Accessible Route
- Fire Lane
- WiFi Areas
- Parking
- Parking Permit Machine with Parking Level
- Elevators
- Restrooms
- Gender-Neutral Lactation Room
- Food Pantry

