



SANTA ANA COLLEGE



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2014 • 2015

catalog



SANTA ANA COLLEGE

2014 • 2015
catalog
and announcement of courses

www.sac.edu

SANTA ANA COLLEGE

1530 West 17th Street • Santa Ana, CA 92706-3398 • 714-564-6000

CENTENNIAL EDUCATION CENTER

2900 West Edinger Avenue • Santa Ana, CA 92704-3902 • 714-241-5700

DIGITAL MEDIA CENTER

1300 South Bristol Street • Santa Ana, CA 92706-3424 • 714-241-5812

**SANTA ANA COLLEGE - ORANGE COUNTY
SHERIFF'S REGIONAL TRAINING ACADEMY**

15991 Armstrong Blvd. • Tustin, CA 92782 • 714-566-9200

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

2323 North Broadway • Santa Ana, CA 92706-1640 • 714-480-7300 • www.rsccd.edu

SANTA ANA COLLEGE • SANTIAGO CANYON COLLEGE

Rancho Santiago Community College District serves residents of Anaheim Hills, Orange, Santa Ana, Villa Park, and a portion of Garden Grove.

ACCREDITED BY THE WESTERN ASSOCIATION OF SCHOOLS AND COLLEGES

Santa Ana College and Santiago Canyon College are accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, (10 Commercial Blvd., Suite 204, Novato, CA 94949, 415-506-0234), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education.



SANTA ANA COLLEGE / SANTIAGO CANYON COLLEGE

INSTRUCTIONAL CALENDARS

COLLEGE CREDIT CLASSES INSTRUCTIONAL CALENDAR 2014-2015

FALL SEMESTER 2014

August 18–20	Faculty projects
August 21–22	Common college flex days
August 25	INSTRUCTION BEGINS
September 1	Labor Day– holiday
September 7	Last day to add and to drop full-term classes without “W” grade with enrollment fee refund
September 26	Last day to file Pass/No Pass
October 17	Deadline for Graduation Petition
November 11	Veterans Day – holiday
November 16	Last day to drop semester-length classes with a “W” grade
November 27–29	Thanksgiving – holiday
December 14	INSTRUCTION ENDS
December 15–January 4	Holiday break

INTERSESSION 2015

January 5	INSTRUCTION BEGINS
January 12	Last day to file Pass/No Pass
January 19	Martin Luther King’s Birthday – holiday
February 1	INSTRUCTION ENDS

SPRING SEMESTER 2015

February 2–4	Faculty projects
February 5–6	Common college flex days
February 9	INSTRUCTION BEGINS
February 13	Lincoln’s Birthday – holiday
February 16	President’s day – holiday
February 22	Last day to add and to drop full-term classes without “W” grade with enrollment fee refund
March 13	Last day to file Pass/No Pass
March 20	Deadline for Graduation Petition
April 3	Cesar Chavez Day (observed)
April 6–11	Spring recess
May 10	Last day to drop semester-length classes with “W” grade
May 25	Memorial Day – holiday
June 4	Commencement – Santiago Canyon College
June 5	Commencement – Santa Ana College
June 7	INSTRUCTION ENDS

SUMMER SESSION 2015

June 15	INSTRUCTION BEGINS
June 19	Deadline for Graduation Petition
July 3	Independence Day – holiday (observed)
August 16	INSTRUCTION ENDS

JUNE • 2014

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29	30					

JULY • 2014

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AUGUST • 2014

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SEPTEMBER • 2014

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OCTOBER • 2014

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NOVEMBER • 2014

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DECEMBER • 2014

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JANUARY • 2015

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FEBRUARY • 2015

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MARCH • 2015

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APRIL • 2015

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MAY • 2015

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JUNE • 2015

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JULY • 2015

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CREDITS

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SANTA ANA COLLEGE PHILOSOPHY AND MISSION RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

SANTA ANA COLLEGE MISSION STATEMENT

The mission of Santa Ana College is to be a leader and partner in meeting the intellectual, cultural, technological and workforce development needs of our diverse community. Santa Ana College provides access and equity in a dynamic learning environment that prepares students for transfer, careers and lifelong intellectual pursuits in a global community.

CATALOG CONTENT

The Rancho Santiago Community College District and Santa Ana College have made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered, together with other matters contained herein, are subject to change without notice by the administration of the district for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the district and the colleges. The district and the college further reserve the right to add, amend, or repeal any of their rules, regulations, policies, and procedures.

INSTITUTIONAL CORE COMPETENCIES

1. Communication Skills

a. Listening and Speaking

Students will listen actively and respectfully to analyze the substance of others' comments. Students will speak in an understandable and organized fashion to explain their ideas, express their feelings, or support a conclusion.

b. Reading and Writing

Students will read effectively and analytically and will comprehend at a college level. Students will write in an organized and grammatically correct fashion to explain their feelings and support a conclusion.

2. Thinking and Reasoning

Students will identify and analyze real or potential "problems" and develop, evaluate, and test possible solutions using creative thinking, analysis and synthesis, quantitative reasoning, and/or transfer of knowledge and skills to a new context as appropriate.

a. Creative Thinking

Students will develop the skills to formulate original ideas and concepts in addition to integrating those of others in the creative process.

b. Critical Thinking

Students will think logically in solving problems; explaining their conclusions; and evaluating, supporting, or critiquing the thinking of others.

c. Ethical Reasoning

Students will demonstrate an understanding of ethical issues that will enhance their capacity for making sound judgments and decisions.

d. Quantitative Reasoning

Students will use college-level mathematical concepts and methods to understand, analyze and explain issues in quantitative terms.

3. Information Management

a. Information Competency

Students will do research at a level that is necessary to achieve personal, professional and educational success. They will use print material and technology to identify research needs, seek, access, evaluate and apply information effectively and responsibly.

b. Technology Competency

Students will use technology learning tools and technology applications at a level appropriate to achieve discipline-specific course requirements and standards. Demonstrated skills might include, but are not limited to: word processing and file management; use or development of simulations, web pages, databases; graphing calculators; etc.

4. Diversity

Students will develop individual responsibility, personal integrity, and respect for diverse peoples and cultures of the world.

a. Cultural

Students will respect and work with diverse people including those with different cultural and linguistic backgrounds and different abilities.

b. Social

Students will interact with individuals and within groups with integrity and awareness of others' opinions, feelings and values.

c. Environmental

Students will demonstrate an understanding of ethical issues that will enhance their capacity for making decisions and sound judgments about the environment.

5. Civic Responsibility

Students will take personal responsibility for becoming informed, ethical and active citizens of their community, their nation and their world.

6. Life Skills

a. Creative Expression

Students will produce artistic and creative expression.

b. Aesthetic Appreciation

Students will respond to artistic and creative expressions.

c. Personal Growth

Students will demonstrate habits of intellectual exploration, personal responsibility, and practical and physical well-being.

d. Interpersonal Skills

Students will participate effectively in teams, committees, task forces, and in other group efforts to make decisions and seek consensus.

7. Careers

Students will develop the knowledge and skills necessary to select and develop careers.

ACCREDITATION

Santa Ana College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, an institutional body recognized by the Council for Higher Education Accreditation, the U.S. Department of Education, and the Veterans Administration. Santa Ana College is also approved by the California Board of Registered Nursing and accredited by the Accreditation Commission for Education in Nursing. The college holds membership in the Community College League of California and the American Association of Community and Junior Colleges. Santa Ana College is also approved by the American Bar Association.

Documents concerning the college's accreditation, licenses and approvals are maintained in the Office of the President of Santa Ana College. Students wishing to examine these documents may do so by contacting the Office of the President.

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

Governed locally by a seven-member board of trustees elected by the citizens of the district, Rancho Santiago Community College District is a part of the California



RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT



KEY TO LOCATIONS

1. RSCCD District Office
2323 N. Broadway, Santa Ana
2. Santa Ana College
1530 W. 17th St., Santa Ana
3. Santiago Canyon College
8045 E. Chapman Ave., Orange
4. Orange Education Center
1465 N. Batavia St., Orange
5. OEC Provisional Education Facility
1937 W. Chapman Ave., 2nd Floor, Orange
6. Centennial Education Center
2900 W. Edinger Ave., Santa Ana
7. Santa Ana College –
Orange County Sheriff’s
Regional Training Academy
15991 Armstrong Blvd., Tustin
8. Digital Media Center
1300 S. Bristol St., Santa Ana
9. Regional Fire Training Center
3405 W. Castor St., Santa Ana

moved to downtown Santa Ana and then to the present site in 1947. Present day market value of Santa Ana College is estimated at more than \$125 million dollars.

Santiago Canyon College is situated on 82 acres at 8045 E. Chapman Avenue in Orange. It opened its first phase of classrooms in fall 1985 under the name of the Orange Campus of Rancho Santiago College. The Child Development Center opened in fall 1991 to provide childcare services.

Centennial Education Center in Santa Ana and the Santiago Canyon College Orange Education Center house the college’s extensive Continuing Education programs, which provide high school diplomas, English as a Second Language and older adults courses.

Metropolitan area television stations also bring classes directly into the homes of many citizens through the Community College Television Consortium.

OPPORTUNITY

The Rancho Santiago Community College District provides opportunities for the pursuit of excellence through educational programs and services for local residents. The purpose of these programs and services is to enhance the quality of human life by providing public access to college education. A significant number of classes are scheduled off-campus each semester in order to enhance accessibility to students. The map indicates the locations of the major instructional sites within the district.

community college system, one of the three segments of public post secondary education in the state.

Rancho Santiago Community College District, located in central Orange County, comprises an area of 193 square miles with a population of approximately 700,000. The district includes all of the Orange and Santa Ana Unified School Districts and a portion of the Garden Grove Unified School District. The district boundaries extend from the eastern portion of the city of Garden Grove and around the perimeters of Santa Ana, Orange, Villa Park, and Anaheim Hills, east to the Riverside County line.

SANTA ANA COLLEGE AND SANTIAGO CANYON COLLEGE

Santa Ana College opened in 1915 as an upward extension of Santa Ana High School. Of California’s 109 public community colleges, it is the fourth oldest. Located first on the campus of Santa Ana High School, it moved to downtown Santa Ana, and then to its present location in 1947. On the other hand, Santiago Canyon College is among the newest community colleges in California. While the Rancho Santiago Community College District was formed to include the cities of Orange, Villa Park and Anaheim Hills in 1971, Santiago Canyon

College (formerly Orange Campus) has offered comprehensive programs for students since 1985. It became an independent college July 1, 1997.

Enrollment in district programs in the Fall 2013, totaled 53,157 with 37,936 in college credit courses and 15,221 in classes for Continuing Education students. The Community Services Program serves another 2,360 residents who enroll in non-credit, fee-supported classes. Approximately 3,100 credit classes are offered by the two colleges each semester, leading to Associates of Arts and Sciences degrees in more than 150 transfer and employment majors, as well as certificates of completion in 75 occupational programs. Metropolitan area television stations also deliver classes through the Community College Television Consortium. In addition, Continuing Education is offered in a variety of non-credit and high school credit courses in over 1000 classes.

DISTRICT FACILITIES

Santa Ana College is located on approximately 65 acres at 1530 W. 17th Street in Santa Ana. The college was first opened in 1915 as an upward extension of Santa Ana High School. It is the fourth oldest community college in California. Located first on the high school campus, the college was



RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

BOARD OF TRUSTEES

President	Jose Solorio
Vice President	Lawrence R. "Larry" Labrado
Clerk	Claudia C. Alvarez
Member	Arianna P. Barrios
Member	John R. Hanna
Member	Nelida Mendoza Yanez
Member	Phillip E. Yarbrough
Student Trustee	Alana V. Voechting

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT ORGANIZATION

CHANCELLOR'S OFFICE

Chancellor	Raúl Rodríguez, Ph.D.
Executive Assistant to the Chancellor	Debra Gerard

HUMAN RESOURCES/EDUCATIONAL SERVICES

Executive Vice Chancellor	John Didion
Assistant to the Vice Chancellor	Josie Rodriguez
Human Resources	
Assistant Vice Chancellor	Judy Chitlik
Employment Services Manager	Elouise Marasigan
Project Manager	John Birk
Risk Management and Employee Benefits	
Risk Manager	Don Maus

EDUCATIONAL SERVICES

Assistant Vice Chancellor	Enrique Perez
Executive Director—Child Development Services	Janneth Linnell
Director—Early Head Start Program	My Le Pham
Director—SAC—Child Development Center	Zeferina Gonzalez and Enriqueta Isais
Director—SAC—Child Development Center East Campus	Maria Castellon
Director—CEC—Child Development Center	Mary O'Neill
Director—SCC—Child Development Center	Susan Wahl
Manager—Business and Entrepreneurship Centers, Local	Maricela Sandoval
Director—Business and Entrepreneurship Centers, Statewide	Michael Roessler
Interim Director—Center for International Trade Development	Jetza Torres
Director—Digital Media Center	Gustavo Chamorro
Director—Grants	Sarah Santoyo
Director—Research	Nga Pham
Director—Workplace Learning	Ruth Cossio-Muniz
Director—Small Business Development Center	Leila Mozaffari

PUBLIC AFFAIRS AND PUBLICATIONS

Director—Communications and Publications	Judy Iannaccone
Manager—Graphic Communications	Eric Harsen
Manager—Publications and Electronic Media	Dean Hopkins

BUSINESS OPERATIONS AND FISCAL SERVICES

Vice Chancellor	Peter J. Hardash
Assistant to the Vice Chancellor	Linda Melendez

Auxiliary Services

Director	Rhonda Langston
----------	-----------------

Facility Planning and District Construction and Support Services

Assistant Vice Chancellor	Carri Matsumoto
Director—Facility Planning	Darryl Taylor

Fiscal Services

Assistant Vice Chancellor	Adam O'Connor
Manager—Fiscal Services	Richard Kudlik
Accounting Manager—Accounts Payable	Ruby Morillos
Accounting Manager—Payroll	Diane Kincheloe
Internal Audit Manager	Sheena Tran

Information Technologies Services

Assistant Vice Chancellor	Sylvia LeTourneau
Director—Academic Support	Curtis Childress, Nick Quach
Director—Application Development	Alfonso Oropeza, Doug Johnson, Stuart Davis
Director—Network and Communications	Phillip Lyle

Purchasing

Director	Tracey Conner-Crabbe
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Security/Safety

Interim Director—District Safety/Security	Alistair Winter
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SANTA ANA COLLEGE

President	Erlinda J. Martinez, Ed.D.
Assistant to the President	Kennethia Vega
Director—College Advancement	Christina Romero
Sports Information Coordinator—Public Affairs	Jason Kehler

ADMINISTRATIVE SERVICES

Vice President	Michael T. Collins, Ed.D.
Campus Budget Manager	Esmeralda Abejar
Facilities Manager	Mark J. Wheeler

ACADEMIC AFFAIRS

Vice President	Linda Rose, Ed.D.
Enrollment Reporting Manager	Carl Jaeger
Coordinator—Institutional Effectiveness and Assessment/Accreditation Liaison Officer	Bonita N. Jaros, Ph.D.
Distance Education	
Coordinator	Cherylee Kushida

BUSINESS DIVISION

Dean	Allen Dooley, Ed.D.
Academic Computing Center	Michael T. Nguyen
Counselor	Dennis Sadler

Accounting and Business Administration

Chair	Jinhee Trone
-------	--------------

Business Applications and Technology

Chair	Dena Montiel-Childress
-------	------------------------

Computer Science

Chair	Glen Harding
-------	--------------

Engineering

Co-Chairs	Susan Sherod, Craig Takahashi, Ph.D.
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Global Business and Entrepreneurship

Chair	Madeline Grant
-------	----------------

Paralegal

Chair	Richard Manzano, J.D.
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CAREER EDUCATION AND WORKFORCE DEVELOPMENT

Dean	Bart Hoffman
CTE Transitions Coordinator	Kimberly Mathews
CTE Counselor	Maria Rios

FINE AND PERFORMING ARTS DIVISION

Interim Dean	Eve Kikawa
Counselors	Sherri Blake, Ann Lockhart

Art

Chair	Phillip Marquez
-------	-----------------

Dance

Chair	Heather Gillette
-------	------------------

Communication Studies

Chair	Lance Lockwood
-------	----------------

Communications and Media Studies

Chair	Charles Little
-------	----------------

Music

Chair	Brian Kehlenbach, D.M.A.
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TV/Video Communications

Chair	Randal Schultz
-------	----------------

Theatre Arts

Chair	Valinda Tivenan
-------	-----------------

KINESIOLOGY, HEALTH AND ATHLETICS DIVISION

Dean	Avie Bridges
Chair	Brian Sos, Ph.D.
Counselor	Jodi Coffman, Ed.D.
Head Coach—Baseball	Vacant
Head Coach—Basketball—Men	David Breig
Head Coach—Basketball—Women	Flo Luppiani
Head Coach—Cross Country—Women	Miriam Mitzel
Head Coach—Football	Geoff Jones
Head Coach—Soccer—Men	Jose Vasquez
Head Coach—Soccer—Women	Jessica Rapoza
Head Coach—Softball	Kim Nutter
Head Coach—Swimming—Women	Michelle Welsh
Head Coach—Track and Field—Women	Miriam Mitzel
Head Coach—Volleyball—Women	Troy Abbey
Head Coach—Water Polo—Men	Alfred Reyes
Head Coach—Water Polo—Women	Michelle Welsh
Head Coach—Wrestling	Vince Silva



HUMANITIES AND SOCIAL SCIENCES DIVISION

Dean.....Shelly Jaffray
 Counselor.....Steve Bautista
Anthropology/Sociology/Women's Studies
 Chair.....Sandy Wood
Economics/Geography
 Chair.....William Courter
English
 Chair.....Matthew Beyersdorf
ESL
 Chair.....Elissa Hassel
Ethnic Studies
 Chair.....David Lopez
History
 Co-Chairs.....Gerald Ghelfi, Ph.D., Angelina Veyna, Ph.D.
Honors Transfer Program
 Coordinator.....Kathy Patterson
Learning Center
 Modern Languages
 Chair.....Javier Galvan, Ph.D.
Philosophy
 Chair.....Zachary Fish, Ph.D.
Political Science
 Chair.....Philippe Andrade, Ph.D.
Psychology
 Chair.....Fernando Ortiz, Ph.D.
Reading
 Chair.....Molly Colunga

HUMAN SERVICES AND TECHNOLOGY DIVISION

Dean.....Bart Hoffman
 Counselor.....Reina Sanabria
Automotive Technology/Diesel/Welding
 Chair.....Glen Hammonds
Criminal Justice
 Co-Chairs.....Andy Gonis, George Wright
Criminal Justice Academies
 Assistant Dean.....John Finch
 Interim Assistant Dean.....Ron Coopman
Family and Consumer Studies
 Interim Chair.....Kyla Benson
Fire Technology
 Assistant Dean of Fire Technology.....Donald Mahany
 Director, Fire Instruction.....Gary Dominguez
 Coordinator–Fitness Program.....Kris Ross, Terri Wann
Human Development
 Chair.....Susie Valdez
Manufacturing Technology
 Chair.....Dietrich Kanzler
Media Systems
 Assistant Dean.....Don Mahany
 Lead, Media Systems.....John Tran
Occupational Therapy Assistant
 Coordinator.....Michelle Parolise
Pharmacy Technology
 Chair.....K.C. Huynh, Pharm.D.
Quick Center
 Dean.....Bart Hoffman
 Lead Publications Assistant.....Connie Jimenez
Speech-Language Pathology Assistant
 Coordinator.....Monica Porter
LIBRARY DIVISION
 Counselor.....Robert Gallego
 Chair–Library.....Luis Pedroza, Nell Yang
 Chair–Library Technology Program.....Stacy Russo
SCIENCE, MATHEMATICS, AND HEALTH SCIENCES DIVISION
 Interim Dean.....Cher Carrera, Ed.D.
 Counselor.....Cathie Shaffer
Biology
 Chair.....Jorge Lopez, Ph.D.
Chemistry
 Chair.....William Nguyen, Ph.D.
Health Sciences/Nursing
 Associate Dean/Director.....Rebecca Miller
 Assistant Directors.....Rosemarie Hirsch, Mary Steckler
 Facilitator–EMT.....Elaine Dethlefsen
 Chair.....Rosemarie Hirsch
Mathematics
 Chair.....Ken Sill

Medical Assistant
 Chair.....Catherine Emley
Physical Science
 Co-Chairs.....Timo Budarz, Ph.D., Claire Coyne

STUDENT SERVICES

Vice President of Student Services.....Sara Lundquist, Ph.D.
Admissions and Records
 Associate Dean.....Mark Liang, J.D.
 Registrar.....Christopher Truong

COUNSELING DIVISION

Dean.....Micki Bryant, Ph.D.
 Co-Chairs.....Angelea Brown, Mary Castellanos, Martha Vargas
 Articulation Officer.....Paula Canzona
 Counselor/Coordinator–MESA.....Cathie Shaffer
 Counselor/Coordinator–PUENTE.....Reina Sanabria
 Counselor/Coordinator–Teacher Education.....Steve Bautista
 Counselor/Coordinator–Transfer Center.....Martha Vargas
 Counselor/Coordinator–U-LINK.....Mary Castellanos
 Career/Job Resource Center.....Marisela Godinez, Sandy Morris-Pfyl
 Counselor/Coordinator–Testing Center.....Beverly Birnbaum

DSPS/HEALTH WELLNESS/PSYCHOLOGY SERVICES

Associate Dean.....Sherry DeRosa
 Alternative Media.....Angela Tran
 Assistive Technology.....Don Dutton
 Coordinator–Communication Disabilities/ABI.....Renee Miller
 Coordinator–Deaf and Hard of Hearing.....Monica Collins
 Coordinator–Health and Wellness Center.....Rebecca Barnard
 Coordinator–DSPS.....Maria Aguilar Beltran
 Coordinator–Scholarship Program.....Peggy Card-Govela
 Coordinator–Psych Disabilities.....Susana Salgado, Ph.D.
 Learning Disability Specialist.....Louise Janus
 Training Director–Psych Services.....Phi Loan Le, Psy.D.

EOPS/CARE and CalWORKs

Associate Dean.....Christine Leon
 Counselor/Coordinator–CARE/CalWORKs Programs.....Ann Lockhart
 Coordinator–EOPS Resource Center.....Gabriela Sanchez

FINANCIAL AID

Associate Dean.....Robert Manson
 Coordinator–Student Placement.....Janet Grunbaum
 Veterans Office.....Dorothy Swayne

STUDENT AFFAIRS

Dean.....Lilia Tanakeyowma, Ed.D.
 Associate Dean–Student Development.....Loy Nashua, J.D.
 Assistant Dean–Student Services.....Teresa Mercado-Cota
 Career Academy Scholars Program.....Amanda Romero
 Coordinator–Community Services.....Lithia Williams
 Director–Gear Up.....Lilia Tanakeyowma, Ed.D.
 Coordinator–SSSP/Upward Bound.....Romelia Madrigal
 Coordinator–Student Outreach.....Daniel Marquez
 Coordinator–Talent Search.....Marco Ramirez
 Coordinator–Veterans Upward Bound.....Joseph Alonzo
 Counselor/Coordinator–YESS Program.....Sylvia Sanchez
 English Language Academy.....Carmelita Eustaquio
 International Student Office.....Carmelita Eustaquio
 Service Learning Center Office.....Lilia Tanakeyowma, Ed.D.
 Student Transition Program.....Luisa Ruiz
 Veterans Resource Center.....Loy Nashua, J.D.

CONTINUING EDUCATION

Vice President.....James Kennedy
 Dean–Instruction/Student Services–Santa Ana.....Nilo Lipiz
 Dean–Instruction/Student Services–Santa Ana.....Sergio Sotelo, Ph.D.
 Associate Dean–Instruction/Student Services.....Christine Kosko
 Associate Registrar.....Phuong Nguyen

Adult Secondary Education

Chair.....Carrie Patton

Counseling

Co-Chairs.....Julia Vercelli, Patty Siguenza

English as a Second Language

Co-Chairs.....Susan Gaer, Henry Kim, Rob Jenkins, Sally Scoggin

This chart reflects the RSCCD organization as of July 1, 2014



NONDISCRIMINATION POLICY

The Rancho Santiago 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, color, medical condition, genetic information, ancestry, sexual orientation, marital status, physical or mental disability, or because he or 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. Inquiries regarding compliance and/or grievance procedures may be directed to District's Title IX Officer and/or Section 504/ADA Coordinator. RSCCD Title IX Officer and Section 504/ADA Coordinator: John Didion, 2323 N. Broadway, Santa Ana, CA 92706, 714-480-7489.

POLÍTICA DE NO DISCRIMINACIÓN

El Distrito Colegial Comunitario Rancho Santiago está comprometido a ofrecer la igualdad en oportunidades para programas educativos, empleos, y a todo acceso a los programas y actividades institucionales. El Distrito, y cada persona que representa al Distrito, debe proveer acceso a sus servicios, clases y programas sin importar el lugar de nacimiento, religión, edad, sexo, identidad de género, expresión del género, raza, color, condición médica, información genética, descendencia familiar, orientación sexual, estado civil, discapacidad física o mental, o por creer que él o ella tiene una o más de las características mencionadas, o en base a estar relacionado con una persona o grupo que se cree tenga algunas de estas características. Preguntas sobre el cumplimiento y/o el procedimiento para quejas pueden ser dirigidas al Oficial del Distrito a cargo del Título IX de RSCCD o al Coordinador de Sección 504/ADA de RSCCD: RSCCD Title IX Officer and Section 504/ADA Coordinator: John Didion, 2323 N. Broadway, Santa Ana, CA 92706, 714-480-7489.

CHÍNH SÁCH BẤT KỲ THỊ

Khu Học chánh Đại học Rancho Santiago Community College District luôn tôn trọng cơ hội bình đẳng trong các chương trình giáo dục, trong việc thuê mướn nhân viên, và trong tất cả các chương trình học và sinh hoạt. Khu Học chánh và mỗi cá nhân đại diện cho Khu Học chánh sẽ cung cấp dịch vụ, lớp học và chương trình cho mọi người mà không phân biệt nguồn gốc quốc gia, tôn giáo, tuổi tác, phái tính, đặc điểm phái tính, cách thể hiện phái tính, chủng tộc, màu da, tình trạng sức khoẻ, thông tin di truyền, nguồn gốc tổ tiên, khuynh hướng tính dục, tình trạng hôn nhân, có bị khuyết tật hay bệnh tâm thần, hoặc vì cá nhân đó được cho là có một hay nhiều hơn một đặc tính kể trên, hoặc dựa vào sự liên quan của cá nhân đó với một cá nhân hay một nhóm thật sự có hoặc được cho là có một hay nhiều hơn một đặc tính kể trên. Nếu có thắc mắc về việc tuân thủ luật lệ và/hoặc về thủ tục khiếu nại, xin liên lạc viên chức phụ trách chương trình Title IX (Title IX Officer) và/hoặc phối trí viên chương trình 504/ADA (Section 504/ADA Coordinator) của Khu Học chánh. Viên chức chương trình Title IX và chương trình 504/ADA của Khu Học chánh RSCCD là: John Didion, địa chỉ liên lạc là: 2323 N. Broadway, Santa Ana, CA 92706, 714-480-7489.



ADMISSION AND REGISTRATION

ADMISSION ELIGIBILITY

Who May Attend

High school graduate

OR

Person in possession of a California high school proficiency certificate

OR

Person 18 years of age or older who can profit from instruction

OR

High school student qualifying for Career Advanced Placement program.

APPLICATION

New students and students returning after an absence of **one** or more semesters must file an application on-line for admission to the college (summer is not counted).

All applications are completed on the CCCApply website. Applications are processed within 24-72 hours. An email will be sent with your WebAdvisor Login and other student information. The WebAdvisor Login and student ID for former students will always remain the same. You may then go online, change your password, and view your registration appointment date and time.

Application dates:

Fall semester beginning April 1
Spring semester beginning November 1
Summer session beginning April 1

RESIDENCY

All students are classified as either a resident of the State of California or non-resident when applying for admission. A “resident” is a student who has residence in the state for more than one year before the initiation of a semester or term (EC 68017), based on the “Residence Determination Date” (RDD) which is the day immediately preceding the opening of instruction applies to U.S. citizen, permanent residents, and persons holding certain visas that allow for residence. A non-resident is a student who has not established residence in the State of California for one year as of the residence determination date.

1. Persons who are under 18 years of age (minors) establish residence in accordance with above “resident” definition and the following:
 - a. Married minors may establish their own residence.
 - b. The residence of the parent with whom an unmarried minor child maintains a place of abode is the residence of the unmarried minor child. When the minor lives with neither parent, residence is that of

the parent with whom the minor last resided. The minor may establish residence when both parents are deceased and a legal guardian has not been appointed.

- c. The residency of unmarried minors who have a parent living cannot be changed by their own acts, appointment of legal guardians, or relinquishment of a parent’s right of control (EC 68062).
2. Persons who are 18 years of age or older (adults) establish residency in accordance with EC 68017 (see above). Adult residency begins after the 18th birthday.
3. A person’s residency shall not be derived simply by being married. A man or a woman establishes his or her residency independent of his or her spouse. Many of the objective manifestations may be shared, but each may have some evidence of intent that is not shared.
4. If you hold an Employment Authorization Card or a VISA including, but not limited to, any one of the following visas: B-1/B-2, C, O-1/O-2, F-1/F-2, H-2/H-3, J-1/J-2, M-1/M-2, O-2, P-1/P-2/P-3/P-4, Q, TN/TO, you must present your documentation to the Admissions and Records Office for review to determine residency status.
5. **Exceptions:**
The California Education Code and provisions in state law allow certain nonresidents the opportunity to pay instate tuition. Eligibility criteria are noted below.
Students who believe they are eligible for an exemption based on any one of the following criteria should consult the Admissions and Records Office when he or she applies:
 - a. Students who are members of the armed forces of the United States who are stationed in this state on active duty, except those assigned to California for educational purposes.
 - b. Spouses and dependents (natural or adopted children or stepchildren) of active members of the armed forces.
 - c. Parents who are federal civil service employees and have moved to California as a result of a military realignment action that involves the relocation of at least 100 employees. This exemption also applies to the natural or adopted children or stepchildren of such employees.
 - d. Students who are 20 years old or younger and served by the California Foster Care System.

- e. Students who have completed at least three years of high school in California and have graduated from a California high school. Students must fill out and submit the “California Nonresident Tuition Exemption Request” form (AB540) for consideration.
6. Specific residency problems and questions will be answered by the Admissions and Records Office.

AB 540

Pursuant to Education Code 68130.5 (AB 540), any student, other than a nonimmigrant alien, who meets all of the following requirements, shall be exempt from paying nonresident tuition at the California Community Colleges, the University of California, and the California State University (all public colleges and universities in California).

1. Requirements:

- a. The student must have attended a high school (public or private) in California for three or more years.
- b. The student must have graduated from a California high school or attained the equivalent prior to the start of the term (for example, passing the GED or California High School Proficiency exam).
- c. An alien student who is without lawful immigration status must file an affidavit with the college or university stating that he or she has filed an application to legalize his or her immigration status, or will file an application as soon as he or she is eligible to do so.
2. Students who are non-immigrants [for example, those who hold F (student) visas, B (visitor) visas, etc.] are not eligible for this exemption.
3. The student must file an exemption request including a signed affidavit with the college that indicates the student has met all applicable conditions described above. Student information obtained in this process is strictly confidential unless disclosure is required under law.
4. Students eligible for this exemption who are transferring to another California public college or university must submit a new request (and documentation if required) to each institution.
5. Nonresident students meeting the criteria will be exempted from the payment of nonresident tuition, but they will not be classified as California residents. They continue to be “nonresidents”.



- As a component of The California Dream Act, AB 131 allows students who meet AB 540 criteria to apply for and receive state-funded financial aid such as institutional grants, community college fee waivers, Cal Grant and Chafee Grant.

INTERNATIONAL STUDENT ADMISSIONS

A limited number of international students (F-1 Visa) are eligible for admission to the college each year. International students who plan to attend under a student visa should apply to the International Student Office for forms and instructions. Application deadlines are July 1 for the fall semester, and December 1 for the spring semester. A \$50.00 application fee is required with the application. For more information call 714-564-6047.

Admission Policy of International Students on F-1 Visa Status:

- The international student must submit a complete, official academic transcript of all high school and previous college work attempted. Transcripts must be officially translated into English, bear the school seal, and be signed by the registrar or another appropriate official. Applicants are considered for admission only if their course grades are above average (C+ or higher).
- International students must have sufficient knowledge of English to enable them to profit from instruction at the college level. Adequacy of English proficiency is determined by a satisfactory score (450+) on the Test of English as a Foreign Language (TOEFL), administered worldwide by the Educational Testing Service, Box 899, Princeton, New Jersey 05840.
- International students must be at least 18 years of age unless they are graduates of an accredited United States high school.
- Students on the F-1 Visa must present evidence that they have financial resources to defray costs during the period of attendance at the college. Approximate **annual** costs for a student enrolled in 12 units each semester are: a nonresident tuition fee of \$5,136.00; health insurance, \$1,278.00; textbooks and supplies, \$800.00; living expenses, \$12,000.00, enrollment fee \$1,104.00, other fees \$211.00 for a total of \$20,265.00. This figure does not include transportation costs or summer school tuition.
- International student applicants must be in good physical health as certified by a licensed physician on the form provided by the college. Measles and poliomyelitis immunization must be completed. The physical examination by a physician must include a chest x-ray report and indicate that students have no contagious disease.

- Proof of health insurance is required prior to registration. The college accepts no responsibility for medical expenses incurred by international students.
- The colleges in the Rancho Santiago Community College District do not provide housing for their students; however, placement with an American Host Family is available upon request. Many apartment complexes are located near the campus. A listing of apartments will be made available to all new students and assistance with locating housing will be provided.
- International students are required to enroll in English or English as a Second Language/English for Multi-Lingual students during their first semester.

INTERNATIONAL TRANSCRIPTS – EVALUATION PRACTICES

Santa Ana College may grant credit for college coursework completed outside of the United States. Students must submit their records to a Santa Ana College recognized evaluating agency, in order to obtain an equivalency/evaluation report (contact the Admissions Office or Counseling Division for listings of evaluating agencies). Once the Admissions Office at Santa Ana College receives the equivalency/evaluation report, an official evaluation will be conducted to determine course applicability.

The following guidelines apply to coursework completed outside of the United States.

- There is no transfer credit limit a student may be granted for coursework completed outside of the United States. However, Santa Ana College may only grant credit for lower division classes.
- College credit may only be granted toward Santa Ana College associate degree and certificate programs.
- Coursework may not be used to fulfill the following General Education Requirements' English Composition, American Institutions, Reading, and Oral Communication.
- Courses intended to fulfill major requirements must be submitted to the major department for approval.
- Coursework may not be used to fulfill General Education Certification requirements for CSU-GE or IGETC (with the exception of Area 6-Languages Other Than English).
- Santa Ana College may not determine course transferability to other colleges and universities.

Students who have completed coursework outside of the United States are encour-

aged to meet with a counselor to determine course and program applicability.

STUDENT SUCCESS AND SUPPORT PROGRAM

The Student Success and Support Program (3SP) is designed to support the transition of new students into the college by providing core services that promote academic achievement and successful completion of degrees, transfer preparation, career technical education certificates, or career advancement. In an effort to promote student success, English and Math placement testing, orientation and advisement toward the development of an education plan are core services required of all entering students, as mandated by the state (effective Fall 2014). Students must also declare a course of study (major), and receive advisement towards the development of a Comprehensive Education Plan no later than the semester after which the student completes 15 degree applicable units. Not completing these core services may result in the loss of priority registration.

The first three requirements of the Student Success and Support Program can be easily accomplished by following the linked steps below:

- Take the English and Math Placement Tests. All Associate degree and transfer programs require English and Math. Even if your academic goal does not require English or Math, the placement test results are very helpful when it comes to selecting courses and ensuring that you will successfully pass the courses. Once you take the placement tests you will be scheduled for a group new student orientation and advisement. To schedule an English and Math Placement Test appointment go to: www.sac.edu/student-services/testing-center
- Attend a New Student Orientation and Advisement Session to receive valuable information to help you select and reach your academic goal, and learn about the many programs, certificates, degree pathways and student support services offered at Santa Ana College.
- Create an Abbreviated Education Plan during the orientation and advisement session. An Abbreviated Educational Plan states your academic goal and the first courses you need to reach your goal. If you have completed a prerequisite course at another college, or if you took placement testing at another college, bring your transcripts and/or your English and Math placement results to the Counseling Center to determine if you are exempt from testing, and to develop your Abbreviated Education Plan. You may be referred to our online



orientation or other alternate core services at that time to complete the 3SP requirements. The Counseling Center is located in the Administration (S) Building, or call 714-546-6100.

- To complete the final Student Success and Support Program requirement for entering students, you must also declare a major course of study, and receive advisement towards the development of a Comprehensive Education Plan. This can be accomplished by enrolling in a counseling course, attending an educational planning workshop, or by scheduling an appointment with a counselor.

Under certain circumstances you may be exempt from the requirements of completing an orientation, placement testing and an educational plan. For more information, go to the Counseling Division Homepage on the SAC Website, under Student Success and Support Program (3SP) at www.sac.edu/StudentServices/Counseling/3sp/Pages/default.aspx.

Assessment

Tests in English, reading, English Language Development, math, and chemistry are provided to help you determine your present skill level so that you can select appropriate classes with the help of a counselor. Consult the testing schedule that is listed in the Schedule of Classes. To schedule an appointment for placement testing, go to www.sac.edu, click on Admissions and records, then click on Testing Center, or contact the Testing Center at 714-564-6148.

For English, there are two tests. The College Test of English Placement (CTEP) is for students who have studied English and/or ESL (English as a Second Language) in school for at least seven years or who use English frequently on a daily basis. The other test, the Test of English Language Development (TELD) is for students who have not studied English and/or ESL or EMLS in school for at least seven years or who do not use English frequently on a daily basis. Students taking the TELD will be referred to English for Multilingual Students classes. Students who take the wrong test may be placed in a class that is not right for them. By the time you and the teacher realize that you are in the wrong class, it may be too late to register for the appropriate class.

The Math Diagnostic Testing Project (MDTP) has four different levels. Choose the level you feel you are best prepared for. Sample questions for each test are available in the Testing Center, on the Testing Center web site, and in the Math Center.

If you have attended another college and feel that you have already completed the necessary coursework in English, reading, math and/or chemistry, please bring offi-

cial transcripts to the Counseling Center. Please bring official test results, indicating course placement to the Counseling Center.

For students needing accommodations when taking a placement test, please contact the Disabled Student Program and Services office by calling 714-564-6295 or visiting U-103 at Santa Ana College.

REGISTRATION

Continuing Students

A continuing student is a student who attended the previous semester. The student may check online Via WebAdvisor for their registration date and time and may register any time thereafter until the semester begins. Students are encouraged to see a counselor each semester in order to review their academic progress before completing registration.

New and Former Students

New or former students who complete an Admission application on-line will receive registration information by email.

Loss of Enrollment Priority

The state of California has adopted a new law, Title 5 Regulation 58108 (j), establishing enrollment priorities for students attending California Community Colleges. The regulation will affect the time in which students register for classes. This policy went into effect beginning with registration for Fall Semester, 2013.

Continuing students at Santa Ana College will lose their enrollment priority for the following reasons:

- Student has attempted 12 units and his/her RSCCD cumulative GPA has fallen below 2.0 for two consecutive semesters and is on academic probation;
- Student has attempted 12 units and the percentage of all coursework at SAC/SCC has an entry of "W," "I," "NP," and "NC" which reaches or exceeds fifty percent (50%). § 55031;
- Student has earned 100 or more degree applicable units from Santa Ana and Santiago Canyon Colleges.

Students who have SAC as their home campus can submit a petition for appeal to the Admissions Office at SAC. Students who are not in good academic standing can appeal for the following reasons: 1) there were extenuating circumstances (verified cases of accident, illness) and can provide documentation; 2) can demonstrate SIGNIFICANT academic improvement in a subsequent term. Students who have earned 100 or more degree applicable units can appeal if they have declared a high unit major and are currently working toward a degree. Forms for these appeals can be obtained in Admissions and Records or downloaded from the college website.

Late Registration

Late registration is held during the first two weeks of instruction. Procedures during this period are shown in the schedule of classes.

SCHEDULE OF CLASSES

The Schedule of Classes is prepared each semester. It includes general information, courses offered, hours, rooms, and instructor names. Schedules are available before registration in the bookstore. Classes added to the schedule after publication may be seen on the web.

OPEN ENROLLMENT

Unless specifically exempted by statute, every course wherever offered and maintained by the district is fully open to enrollment and participation by any person who has been admitted to the college and meets the approved course prerequisites.

STUDENT PHOTO IDENTIFICATION CARD

A student is eligible for a photo identification card after paying for classes and the photo I.D. fee. Photo I.D. is located in the Cashier's Office in S-104. This card facilitates student use of the Library, Health and Wellness Center, computer laboratories, the Admissions Office, and a variety of college services. Current fees are listed in the schedule of classes.

FULL-TIME - PART-TIME DEFINITION

Full-time students
(Fall and Spring) = 12 or more units

Part-time students
(Fall and Spring) = Less than 12 units

Full-time students
(Summer) = 6 units

Part-time students
(Summer) = Less than 6 units

Students receiving social security benefits or satisfying the requirements of insurance companies must be carrying 12 or more units to be eligible.

Veterans Administration eligibility uses the following definition:

full-time 12 or more units
three-fourth benefits . . . 9 through 11 units
one-half benefits 6 through 8 units

Any change in veteran status, whether it be increase, decrease, or complete withdrawal, must be brought to the attention of the Veteran's Office immediately.

SUMMER SESSION

The colleges offer a six- and eight-week summer program of morning and evening courses. Summer courses can remove high



school or college deficiencies and advance the students toward an educational goal.

WEEKEND COLLEGE

Classes are offered on Friday evenings and Saturdays and Sundays so that students can earn units applicable to the associate degree, acquire occupational skills, earn units for transfer to four-year schools, or gain personal enrichment.

CAREER ADVANCED PLACEMENT PROGRAM (CAP)

High School Career Advanced Placement Student or “CAP” Student are registering for a college class. **This is a limited program geared toward educational enrichment not remediation.**

- CAP students will be receiving college credit for this class whether or not the units are used toward high school graduation. This means a college transcript is generated listing the class or classes and the grades earned. This establishes a *permanent* record with the college.

- CAP students are required to attend class until the end of the semester unless the student decides to drop the class online prior to the deadline identified in the schedule of classes. *The drop deadline is set when 75% of the course has been completed.* The student will receive a “W” when the student drops after the first two weeks of a full semester or after the first week of the summer session. Please read class section details listed in Web Advisor (Online Records) for important refund and drop deadlines.

- Be sure to attend all classes. Material covered in college courses is at a faster pace than high school classes. Expect to spend twice as much time outside of class as you do in class completing assignments and homework.

- Enrollment fees are not charged to high school students enrolling in 11 units or less. *If the student enrolls in 12 units or more during Fall and Spring semesters, the student will be charged the current enrollment fee for all units. Further, during summer sessions, if the student enrolls in 6 units or more, the student will be charged for all units enrolled.* All concurrently enrolled high school students are charged health fees. CAP students by law do not have priority registration. This occurs 4 days before the start of the semester or session.

Santa Ana College maintains open campuses. Students function under Standards of Student Conduct (Board Policy 5201), and there is an expectation that adult behavior will be displayed by students on campus. Academic honesty is a requirement, and sanctions are identified in course overviews which are distributed by faculty on the first day of class. Students are responsible for

their own transportation and materials on campus.

College students receive priority for admission. Under the California Code of Regulations, title 5, section 58108 “a district may establish a priority registration system which would accord adult students higher registration priority.” Grades recorded for these classes are permanent and create a college transcript. **The transcript information is confidential and is only accessible by the student. All college information is confidential and not accessible to parents or guardians.**

PREREQUISITES AND COREQUISITES FOR COURSES

The colleges of the Rancho Santiago Community College District have adopted a policy on course prerequisites, corequisites, and advisories in order to provide for the establishing, reviewing, and challenging of prerequisites, corequisites on recommended preparation, and certain limitations on enrollment in a manner consistent with law and good practice. The policy, which is specified for implementation as an administrative regulation, is established pursuant to regulations contained in Article 2.5 (commencing with Section 55200) of Sub Chapter 1 of Chapter 6 of Title 5 of the *California Code of Regulations*. The RSCCD Board of Trustees recognizes that if these prerequisites, corequisites, and limitations are established unnecessarily or inappropriately, they constitute unjustifiable obstacles to student access and success and, therefore, the board adopts this policy which calls for caution and careful scrutiny in establishing them. Nonetheless, the board also recognizes that it is as important to have prerequisites in place where they are a vital factor in maintaining academic standards and in assuring the health and safety of students as it is to avoid establishing prerequisites where they are not needed. For these reasons, the board has sought to establish a policy that fosters the appropriate balance between these two concerns.

IMPORTANT DEFINITIONS

If you should see the words **Prerequisite** or **Corequisite** in the catalog, it is important for you to understand the definitions of these terms. Note that prerequisites and corequisites can be challenged. See *Prerequisite Challenge Policy*, for more information.

Prerequisite indicates a condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program. A prerequisite represents a set of skills or a body of knowledge that a student must possess prior to enrollment and without which the student is highly unlikely to succeed in the course or program. Students will

not be permitted to enroll in such courses and programs without the appropriate prerequisite.

Corequisite indicates a condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course. A corequisite represents a set of skills or a body of knowledge that a student must acquire through concurrent enrollment in another course and without which the student is highly unlikely to succeed. Students must concurrently enroll in the corequisite course.

PREREQUISITE CHALLENGE POLICY AND PROCEDURES COURSE PREREQUISITE POLICY

Prerequisite means the preparation or previous course work considered necessary for success in the course. The College requires students to complete prerequisites as pre-enrollment preparation. Prerequisites which are listed in the College Catalog include:

1. Courses for which specific prerequisites have been established;
2. Sequential course work in a degree-applicable program, and;
3. Courses in which an equivalent prerequisite exists at a four-year transfer college or university.

Questions about prerequisites are best resolved with a counselor prior to the first day of class.

PREREQUISITE CHALLENGE PROCESS

A prerequisite challenge requires written documentation, explanation of alternative course work, background or abilities which adequately prepare the student for the course. A Prerequisite Challenge Form can be obtained from the appropriate instructional office. Prerequisites may be challenged for one or more of the following reasons:

1. The college has not developed the prerequisite according to its established procedures or has not developed the prerequisite in accord with existing statutes.
2. The prerequisite is discriminatory or is being applied in a discriminatory fashion.
3. The college has not made the prerequisite course reasonably available.
4. The student has documented knowledge and abilities equivalent to those specified in the prerequisite course.

The challenge will be reviewed by a committee consisting of the dean, or designee, department chair, or designee, and one department or division representative or designee.



If space is available in a course when a student files a challenge to the prerequisite or corequisite, the district shall reserve a seat for the student and resolve the challenge in a timely manner. If no space is available in the course when a challenge is filed, the challenge shall be resolved prior to the beginning or registration for the next term and, if the challenge is upheld, the student shall be permitted to enroll if space is available when the student registers for that subsequent term.

NOTE: Students who are challenging a course which is a requirement for a degree or certificate may wish to use the Credit by Examination process to receive credit for the challenged course.

Specific regulations and procedures relating to course prerequisites, corequisites, and advisories are on file in the office of the Vice President of Academic Affairs at Santa Ana College.

FEES, TUITION, AND EXPENSES

1. All students are required to pay enrollment fees of \$46.00 per unit.
2. A health fee of \$19.00 per semester (\$15.00 for summer and intersession) is charged to all students whether or not they choose to use health services.
Health Fee Exemptions (Education Code 76355): (1) Any student who depends exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization, provided that the student presents documentary evidence of an affiliation with such a bona fide religious sect, denomination, or organization. (2) Any student enrolled in an approved Apprenticeship Program. A request for an exemption may be filed at the Admissions and Records Office.

3. A parking permit is required each semester for students parking on campus. It may be purchased at registration.
4. A College Activities fee of \$7.50 is payable at registration for classes. The fee includes \$2.50 for a Photo ID for college services: (1) Library, Student and Instructional Services; and (2) \$5.00 for college activities. Photo ID and semester validation is available at Santa Ana College and Santiago Canyon College. These services and fees are optional.

Nonresident Tuition

Non-resident Tuition: \$220.00 per unit in addition to the per enrollment fee for out of state residents and for students who are a citizen of a foreign country. Refer residency questions to the Admissions Office.

Visa or MasterCard and Discover are accepted for all fees.

All tuition, fees, and expenses are subject to change with new state legislation.

Textbooks and Supplies

Textbooks, supplies, and athletic equipment must be purchased by the student. Special fees required for certain courses are indicated in the class schedule.

Fees and tuition are subject to change by the state legislature, Community College Board of Governors, or District Board of Trustees.

DROP FOR NON-PAYMENT

Drop for Non-payment Policy: Enrollment fees must be paid in full within 3 days of registration (including weekends and holidays) or your unpaid classes will be dropped and released to other students. The day you register is counted as day 1.

In addition to the 3-day non-payment drop policy, there is a final outstanding balance drop date. **All fees must be paid in full by the Friday before the start of the semester.** No balance will be carried over into the start of the semester. It is the student's responsibility to drop by the refund deadline to avoid any fees for late adds.

REFUND OF TUITION AND ENROLLMENT FEES

Students are eligible for full refunds of fees provided they have officially dropped from classes prior to the refund deadline or their classes have been cancelled by the college. There is no refund for classes added after the refund deadline date. (See current WebAdvisor schedule for refund deadline)

Students who withdraw from class(es) through the first two weeks of instruction or 10% of the class may request a 100% refund. Students withdrawing after the second week of instruction are not eligible for a refund. (See current semester schedule.)

Refunds are based upon the date the student withdraws from the course online. No refund will be processed until assurance has been given that any check in payment for tuition has been cleared.

Enrollment Fee refunds are granted in accordance with established provisions of the community college education code. Contact the Cashier's Office or refer to the current class schedule for details of the refund policy and procedures.

There is no refund for variable units not completed.



STUDENT RESOURCES

ACADEMIC COMPUTING CENTER

The Santa Ana College Academic Computing Center is located at Santa Ana College in room A-106.

The ACC serves students currently registered at the college who are doing college related projects. These projects can be completed by accessing an ample variety of application software. The software packages run on IBM compatible computers or Macintosh computers.

BOOKSTORE

The Bookstore at Santa Ana College provides a complete selection of books, supplies, and specialty items.

CALWORKS

The California Work Opportunity and Responsibility to Kids program is funded by the state to work with students who are approved by County Social Services to complete an educational program that helps them transition from public assistance to employment and economic self-sufficiency. SAC's CalWORKs program offers the following types of assistance to eligible students: help with application and matriculation steps; academic, career and personal counseling; individualized student educational plans; priority registration; verification of monthly activity reports to Social Services; educational supplies; work-study placement (when available); workshops and networking activities; and referrals to other campus resources and opportunities. For more info, visit: www.sac.edu/StudentServices/EOPS/CalWORKS/, drop by U-101 (Johnson Center), or call 714-564-6232.

CAREER DEVELOPMENT/CAREER TECHNICAL EDUCATION (CTE) STUDENT SUCCESS CENTER

The Career Development/Career Technical Education (CTE) Student Success Center is a one-stop office which provides CTE students with academic counseling, support and resources to guide them to program completion, and preparation for employment.

Career services include access to resources on careers and training programs, pre-internships and volunteer service learning opportunities, as well as employment preparation workshops and job placement services. Individuals and classes are welcome to utilize the Center to explore career information.

COLLEGE ADVANCEMENT/ FOUNDATION

The Santa Ana College Foundation is a 501(c)3 non-profit organization serving a diverse college community and meeting the needs of the Santa Ana and Garden Grove service areas. The board of directors of the college foundation represents a broad-based group of community volunteers, corporate partners, and alumni. Its mission of ensuring that no student is denied educational opportunities due to financial constraint is possible through the generous donations of alumni and friends, corporate and community partners. The Foundation's focus is to maintain, expand, and enhance the educational opportunities of Santa Ana College by linking community organizations, businesses, funding sources, alumni and staff, thus preserving our near century of "A History of Success, A Future of Promise."

The Santa Ana College Foundation leads and supports fundraising activities, campaigns, and initiatives for the college. It assists in direct philanthropy on multiple fronts. This includes large-scale campaigns, scholarships, local and national grants, program support, which includes our Associate Groups. To this end, the college foundation solicits the support of the community and donors by receiving tax-deductible donations of cash gifts, bequests, trusts, endowments, corporate grants, life insurance benefits, and personal or real property.

If you are interested in more information about the Foundation and how to participate in supporting our many programs, please contact the Foundation Office directly by calling 714-564-6091 or visit our website at www.sac.edu/foundation.

COMMUNITY SERVICES

Community Services offers a full spectrum of low cost, fee-based educational opportunities that include professional growth, personal enrichment, and recreational activities.

A variety of classes and seminars are available including animal care, arts and crafts, business and careers, computers, home and garden, language, dance, health and fitness, money matters, personal enrichment, and real estate. Also available are "College For Kids" programs, special interest classes, on-line classes, and travel tours.

For additional information call the Community Services Program at 714-564-6594 or visit us at www.sac.edu/cms.

CONTINUING EDUCATION PROGRAM

Continuing Education is responsible for providing non-credit college courses and programs to the students of the district. Beyond providing the means for an adult to take classes for high school diploma, Continuing Education delivers pre-collegiate education in the areas of basic academic skills and English as a Second Language. It also serves the needs of groups such as the disabled and parents with special needs. A full range of personal, career and academic counseling services is available to students enrolled in continuing education classes located at a number of educational centers throughout the district. Courses are offered mornings, afternoons, evenings, and weekends to allow accessibility to match varying student needs. Specific information regarding admission and registration policies, services available and description of the courses offered can be found in the Continuing Education section of this catalog.

COUNSELING SERVICES

The Counseling Center offers academic advising and personal counseling at SAC, offering individual and group academic advisement, education plan development, career planning, orientation services, personal counseling and several Counseling courses that support students' personal and academic development in the achievement of their educational goals. Counseling Services are provided at these educational sites: Santa Ana College and Centennial Education Center. Counseling is also provided through a variety of specialized academic support programs, housed both within the Counseling Division, and outside of it. Please refer to the Student Services page of our website for a complete listing of SAC student support programs at www.sac.edu/StudentServices.

Centers and Programs within the Counseling Division

Students interested in transfer to a university, specific career paths such as education, science and engineering, or certificates in career technical education can access counseling through specific programs in these areas. For a complete listing of centers and programs, visit our Counseling page at www.sac.edu/StudentServices/Counseling.

Orientations and Workshops

Counseling can be accessed through a variety of service modalities. New student and career specific orientations are available to help students learn college procedures and requirements and gain information on



career and transfer pathways. In an effort to support student success, workshops are offered in educational planning, how to transfer to a university, and strategies for students who are experiencing academic challenges. Counseling courses are an additional way to access services.

Counseling Center

Counselors are available to meet with students for drop-in times to answer brief questions and individual appointments for in-depth career, academic or personal counseling. Counseling questions can also be asked via our on-line counseling service (www.sac.edu/rsccdasp/online_counseling). The Counseling Center can be reached at 714-564-6100.

CHILD DEVELOPMENT CENTERS

Rancho Santiago Community College District maintains six child development centers to serve students' needs for childcare and/or train students seeking a career in Human Development. Students' children between the ages of 6 months and five years are eligible to attend the educational environment provided. Fees are based on a sliding scale according to the parents' income. Students eligible for the CalWORKs program can receive child care services both on and off campus. Contact individual centers for hours of operation and information.

Centennial Center (*2½-5 years old*)
2900 W. Edinger, Santa Ana, 714-564-5090

**Santa Ana College Infant/Toddler/
Preschool Center** (*6 months-5 years old*)
1720 W. 17th St., Santa Ana, 714-564-6894

**Santa Ana College Child Development
Center East Campus** (*2.9 to 5 years old*)
1510 N. Parton St., Santa Ana, 714-564-6952

DISABLED STUDENTS PROGRAMS AND SERVICES (DSPS)

DSPS provides instructional support services and reasonable accommodations to students with verifiable disabilities attending Santa Ana College. Program services are designed to ensure that students have an equal opportunity to participate and succeed in college academic programs and activities.

DSPS services are provided at these educational sites:

Santa Ana College
Centennial Education Center

Students are responsible for requesting DSPS accommodations and for providing appropriate disability verification from a qualified professional. To apply for services, students must complete a program application and meet with a DSPS faculty to have their needs evaluated. The type of assistance provided to each student is determined

individually depending on the nature and functional limitation of the disability.

DSPS services and accommodations include but are not limited to:

- Assistive Technology (i.e. JAWS, Zoomtext, Kurzweil, etc.)
- Campus and community referrals
- Case management
- Collaboration with community based mental health agencies and other local/state governmental departments
- Disability related counseling
- Instructional equipment and wheelchair loans
- Interpreters
- Gate and elevator cards
- Learning Disability Assessment
- Mobility orientations (must be scheduled ahead of time)
- New student orientation
- Notetaking accommodation
- Preferential seating
- Priority registration
- Test taking accommodations
- Real Time Captioning
- Sign Language Interpreter
- Special Services Classes

Additional specialized services are available for students through our Assistive Technology Center, Deaf and Hard of Hearing Services, and Acquired Brain Injury Services. If you would like more information, you can visit our website <http://sac.edu/StudentServices/DSPS>, call 714-564-6264, 714-564-6295, or visit U-103 at Santa Ana College.

ENGLISH LANGUAGE ACADEMY

The English Language Academy (ELA), as part of the International Student Program office, offers a number of quality programs targeted to meet various language-training needs. Every course is designed to help students improve their English proficiency quickly so they can participate more effectively in various academic, professional, and social environments. For more information, call 714-564-6047

EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (E.O.P.S.)

The Extended Opportunity Programs and Services program is funded by the state to work with eligible students whose educational and socioeconomic backgrounds might limit their access to higher education or hinder their ability to be academically successful in their college-level studies. Eligible students are provided "over and above" services to help ensure their timely academic progress and completion, including assistance with application and matriculation steps; academic, career and personal counseling; individualized student edu-

cational plans; priority registration, book services; help with financial aid, scholarship and transfer applications; program-dedicated tutors and resource center; referrals to other campus resources and opportunities; and as budget permits, school supplies and subsidized program fees.

An ancillary program called CARE offers additional support and benefits to EOPS-eligible students who are single parents with at least one child under age 14.

For more info, visit www.sac.edu/StudentServices/EOPS/, drop by U-101 (Johnson Center), or call 714-564-6232.

FINANCIAL AID PROGRAMS

Financial Aid is intended to help students who might not otherwise be able to attend school. Although the primary responsibility for meeting college costs rests with the student and his or her family, it is recognized that many families have limited resources and are unable to meet the cost of a college education. Federal and state financial aid programs have been established to provide assistance for students with documented financial need.

The application process for financial aid begins with the completion of the Free Application for Federal Student Aid (FAFSA), which is available in January for the following fall semester. In order to qualify for financial aid, a student must be enrolled in an eligible program of study leading to completion of an AA/AS degree, transfer requirements or a certificate program; maintain satisfactory academic progress; for most programs, have demonstrated financial need; be a U.S. citizen or eligible non-citizen; certify compliance with selective service registration requirements; not be in default on any loan or owe a refund on any grant made under any Title IV program; have a high school diploma or GED.

For additional information stop by the Financial Aid Office in the Johnson Campus Center at Santa Ana College, call 714-564-6242 or visit our web page at www.sac.edu/StudentServices/FinancialAid/.

Withdrawals and Repayment of Financial Aid Funds

Federal aid recipients who withdraw or are dropped from all classes by the instructor are subject to regulations regarding the Return of Title IV funds. Students who withdraw or are dropped from all classes prior to completing more than 60% of the enrollment period are subject to these rules. See the Financial Aid Office for this 60% date. Based on the date of the complete withdrawal or drop, the Financial Aid Office will determine the amount, if any, of "unearned" federal financial aid received



by the student. If the student received more financial aid than the amount entitled to, the student will be billed for the overpayment. To avoid repayment, financial aid recipients are cautioned to 1) avoid total withdrawal from all classes, 2) successfully complete at least one class during the semester, 3) repay any “unearned” financial aid as soon as possible to regain eligibility for financial aid.

Federal PELL Grant

This is a grant and does not have to be repaid. PELL is a federally funded program designed to be the foundation of financial aid for undergraduates who demonstrate need. The amount of the PELL Grant is based on the cost of attendance, the estimated family contribution (EFC), and the student’s enrollment status at the time of payment. Award amounts vary from \$582 to \$5,645 for the academic year.

Federal Supplemental Educational Opportunity Grant (FSEOG)

FSEOG is another federally funded nonrepayable grant that is available to undergraduate students who demonstrate financial need. Priority in awarding FSEOG funds must be given to PELL Grant recipients with an EFC of \$0. The maximum award amount at Santa Ana College is \$600 per academic year.

Federal Work-Study (FWS)

This federally funded program provides employment opportunities to students with financial need. Students awarded FWS receive an allocation of funds earned through part-time jobs on campus. FWS is also a **learning opportunity** through on-the-job training. The maximum award amount at Santa Ana College is \$4,000.

Priority Deadline for FSEOG and FWS Programs

These programs have limited funds and are generally awarded only to those eligible students who meet the **Priority Deadline**, which is usually during July each year.

Direct Loan Programs

Stafford Loan (Subsidized)

The federal government pays the interest on this need-based loan while the student is enrolled at least half-time (6 units) and during the six month grace period after graduation, withdrawal or enrollment below half-time status. Money is borrowed directly from the federal government. The maximum loan is \$3,500 a year for students with fewer than 30 units. Students who have completed 30 units or more are eligible to borrow up to \$4,500. Students enrolled only in preparatory coursework are eligible to borrow up to \$2,625.

Stafford Loan (Unsubsidized)

The Unsubsidized Stafford Loan is available to students who do not have demonstrated need. The total of a subsidized and unsubsidized Stafford Loan may not exceed the loan limits above. There is no interest subsidy on this loan, and interest begins to accrue when the loan is disbursed.

Chafee Grant

This grant program is available to former foster youth. Awards are \$5,000 per year. Apply using the FAFSA and the separate Chafee Grant application at <https://www.chafee.csac.ca.gov/studentapplication.aspx>.

CALIFORNIA STATE PROGRAMS

Board of Governors Fee Waiver (BOGW)

The BOGW is a state program for California residents and AB 540 students which waives the enrollment fees for qualified students at community colleges. There are three ways to qualify for a BOGW:

The student demonstrates financial need according to the federal methodology based on completion of the Free Application for Federal Student Aid (FAFSA) or the California Dream Act Application;

OR

The student or his/her family is receiving CalWORKs, formerly TANF/AFDC, or SSI (Supplemental Security Income), or General Assistance/General Relief, or the student is a disabled veteran or a dependent of a deceased or disabled veteran as certified by the California Department of Veterans Affairs.

OR

The student meets specific income standards based on family size.

Cal Grants

To qualify for a Cal Grant a student must be a U.S. citizen, a permanent resident or an eligible non-citizen who is a California resident, or be registered as an AB540 student with Admissions and Records. The student must be attending an eligible college located in California and be making satisfactory academic progress. For all Cal Grants, apply between January 1 and March 2 each year using the FAFSA or California Dream Act Application, and GPA verification form.

Cal Grant A

Cal Grant A assists low and middle income students with tuition and fee costs at four-year institutions. Eligibility is based on academic achievement and financial need.

If a student qualifies for a Cal Grant A and plans to attend a public community college, the Student Aid Commission will put the tuition/fee award on reserve until the student transfers to a four-year college, provided that the student continues to qualify financially.

Cal Grant B

Cal Grant B provides money for books and supplies, housing costs and transportation. Awards range up to \$1,551. Eligibility is based on demonstration of substantial financial need.

Cal Grant C

Cal Grant C assists vocational students with tuition and training costs.

Awards range up to \$576 for related training costs such as special clothing, tools, equipment, books and supplies, and transportation.

Recipients must be enrolled in a vocational program at a community college, independent college of vocational school, in a program of study from four months to two years in length. Three-year hospital based nursing students are also eligible for this program.

The Cal Grant C program is intended to provide training in areas of manpower need.

HEALTH AND WELLNESS CENTER/ PSYCHOLOGICAL SERVICES

The Health and Wellness Center is located at Santa Ana College in room U-120. Currently enrolled students who have paid the health fee are eligible for services. The Health and Wellness Center is staffed by registered nurses. Physicians and psychologists are available by appointment. Most services are provided without charge, except a nominal fee for laboratory tests, prescriptive medications, and some medical procedures.

Emphasis is on health maintenance and wellness promotion. Health services available include the diagnosis and treatment of acute short-term illnesses, first-aid, psychological counseling, health promotion literature, blood pressure checks, tuberculin skin testing, community referrals, first-aid care, emergency contraception, pregnancy tests, and pap smears. Basic emergency care and accident insurance coverage for class related injuries are also provided. Psychological services include short-term counseling for individuals and couples, group counseling, referral services, psycho-educational workshops, and crisis intervention for SAC students.

Santa Ana College is an alcohol and drug free campus with specific designated smoking areas. Refer to the current class schedule for scheduled hours at the Health and Wellness Center. For more information, call 714-564-6216.

HIGH SCHOOL AND COMMUNITY OUTREACH

The High School and Community Outreach department serves as an integral part of the campus and community. Outreach



staff provide detailed information regarding the quality programs that are offered to prospective students. Parents, students, and community agencies are connected to campus life via the efforts of Outreach personnel. Special arrangements can be made for campus tours, presentations, and special meetings to discuss interests about college life and academic departments. For more information, call 714-564-6141 at Santa Ana College.

HONORS AND AWARDS

Phi Theta Kappa. Phi Theta Kappa is an international honors society that recognizes academic excellence and achievement of students enrolled in two-year colleges. The society offers a myriad of opportunities for scholarship, intellectual enrichment, personal development, and academic recognition.

The Alpha Beta Chapter of Phi Theta Kappa was organized at Santa Ana College in 1930.

Membership in Phi Theta Kappa is extended each semester by the local chapter to students who have completed a minimum of 12 degree units with a minimum grade point average of 3.5. Members receive special recognition when they graduate.

Psi Beta. Psi Beta is the National Honor Society for Psychology at Community and Junior Colleges. Santa Ana College has held a Psi Beta chapter since 2001. To be eligible for initial membership a student must 1) attain a 3.25 GPA in 12 or more units of work in the semester prior to membership and 2) have completed at least one psychology course with a B or better. Members are eligible for national scholarships and academic competitions. Members are inducted every semester and receive special recognition at the commencement ceremony.

Alpha Gamma Sigma. Alpha Gamma Sigma is the statewide California Junior College Honor Society. Santa Ana College has one of the oldest chapters in the state, organized in 1922. This is the Omicron chapter. To be eligible for initial membership a student must attain a 3.0 GPA in 12 or more units of work in the semester prior to membership. Credit/no credit units are not considered in the twelve-unit requirement. A student who has completed 60 or more units with an overall GPA of 3.5 or better or who has been a continuing or initial member for 2 semesters and has a GPA of 3.25 or better may become a permanent member of Alpha Gamma Sigma upon application and verification of eligibility by the chapter advisor. Permanent members are announced each year in May at the Scholarship and Awards Program.

INSTRUCTIONAL LOCATIONS

The district's major instructional locations are at Santa Ana College, Santiago Canyon College, Orange Center, and the Centennial Education Center. In addition to these major instructional sites, the district offers classes at over 100 convenient off-campus locations in the community.

INTERCOLLEGIATE ATHLETICS

Santa Ana College offers a winning tradition with an established national reputation, outstanding teaching and coaching, and an excellent system of assistance in transferring students to four-year colleges and universities with athletic scholarships. The college offers a full range of intercollegiate athletic competition for both men and women in football, basketball, baseball, cross country, track, golf, swimming, water polo, volleyball, soccer, softball, and wrestling.

All prospective student-athletes with questions about eligibility for intercollegiate athletics are encouraged to contact the Kinesiology, Health and Athletics Division at 714-564-6900.

INTERNATIONAL STUDENT PROGRAM

A limited number of international students (F-1 Visa) are eligible for admission to the college each year.

The International Student Program is located on the Santa Ana Campus, (714-564-6047).

LEARNING CENTER

The Learning Center is located in Dunlap Hall D-301 and D-307 at Santa Ana College. The Learning Center offers a wide selection of resources providing students with skills and strategies to promote their academic success. Services include supplemental learning (DLA's), conferencing/tutoring, computer-aided instruction, and workshops in the following subjects: reading, writing, English for the Multilingual student (EMLS), modern foreign languages, and communication studies. All services are free to SAC students, and appointments are not necessary. Class orientations can be arranged for the first week of the semester. It is staffed with instructors, trained tutors and learning assistants. For further information, please call 714-564-6569.

LIBRARY SERVICES

The Nealley Library of Santa Ana College, one of two libraries in the District, is centrally located on the first floor of the L building. Our library supplies the resources, services and facilities that support student learning and the mission of the College.

The Library's collection is composed of books, periodical subscriptions, close-captioned videos and DVDs, CDs, microforms and a variety of periodical databases providing students and staff with 24/7 remote access to over 18,000 full-text periodicals and 11,000 e-books. To borrow library materials students and staff must show a picture ID.

The Library's Reserve collection of more than 2,700 items provides students with library-use access to many textbooks and other course-related material.

Students and staff may use either of the two District libraries and may request inter-campus delivery of circulating books.

The Internet is available to all patrons at all public access workstations. Currently enrolled students can conduct library research using library wireless laptops or their own laptops using our Wi-Fi access.

Free library instruction is available for students. Check the library website: www.sac.edu/library, or call 714-564-6700 for general library information, or 714-564-6708 for the current library instruction schedule.

MATH CENTER

The Math Center is a resource center that provides individual and group assistance in mathematics. The Math Center also facilitates Directed Learning Activities. Faculty instructors, instructional assistants, and student tutors are available to assist students with challenging topics, answer questions, encourage understanding, and provide support for all math students. Students also have access to textbooks, graphing calculators, instructional videos, and computer programs.

PHOTOGRAPHY

Santa Ana College/Santiago Canyon College, a non-profit California Community College, reserves the right to use photography and video images of students and visitors, age 18 and older, taken on our property and at college-sponsored events for marketing and promotional purposes. Objection to the use of an individual's photograph may be made in writing to Public Affairs and Publications, RSCCD District Office, 2323 N. Broadway, Suite 408, Santa Ana, CA 92706.

PUBLIC AFFAIRS

Information and publicity regarding district programs and activities are disseminated to the news media and to the community through the Office of Public Affairs/Governmental Relations located on the fourth floor of the Rancho Santiago Community College District Office.



SCHOLARSHIPS

Scholarships are a critical component to student success. Many community patrons and organizations establish scholarship awards as a means of expressing confidence in Santa Ana College and its students. These awards range in amounts from \$1,000 to \$10,000.

Eligibility varies according to the individual scholarship. There are scholarships available for students taking classes at Santa Ana College, those transferring to four-year colleges, and those entering college for the first time upon graduation from high school.

Listings and requirements for the various scholarships can be found online at www.sac.edu/scholarship. On-line applications must be submitted for screening in February, and student recipients will be recognized at an annual award ceremony in May.

For more information and assistance, please contact the Scholarship Program at 714-564-6478 or visit the office located in Building "S", Room 201.

STUDENT ACTIVITIES

Student Activities are planned with sufficient variety and frequency to provide an opportunity for all students to participate. Students may develop additional co-curricular activities when there is sufficient interest to justify them. See page 18.

STUDENT LIFE AT SANTA ANA COLLEGE

Campus Information

The **Student Handbook** is an official student guide which provides a reference on how to take full advantage of the college and its services and also answers questions students may have about student life. Handbooks are supplied to each student enrolling in Counseling 100 and are also available in the Student Activities Offices and during registration.

el Don - The campus newspaper, prepared by journalism students, is distributed to various locations on and off the campus.

Associated Student Government (ASG)

ASG encourages all qualified students to serve in a variety of elected and appointed student government positions and provides student representation for the entire district. Interested students should contact their representatives in the student government office for more information at 714-564-6208, or call Student Activities, Santa Ana College at 714-564-6210.

Student Life

The ASG, Inter-Club Council (ICC), and Student Life Offices sponsor a variety of educational and social programs, campus activities and services to encourage student leadership and create a vibrant student life environment on campus. The ASG provides multicultural events, health awareness events, holiday and themed events, blood drives, BBQ's and concerts, pep rallies, panel discussions, and services for the community. The Inter-Club Council sponsors special events designed for club involvement. The Student Activities Office, in addition to coordinating events, provides information regarding student life, clubs, and organizations. There are an assortment of opportunities, services, discounts, programs and contests. For more information regarding Student Activities, Student Government and Inter-Club Council, contact the Coordinator of Student Activities at Santa Ana College in the Johnson Campus Center, telephone number 714-564-6210.

Campus Centers

The Johnson Campus Center, named in honor of Dr. John E. Johnson, President Emeritus of Santa Ana College, is a focal point for student life at Santa Ana College. Recreational facilities, food services, Student Lounge, the Student Activities Office, Student Health Center, and ASB/ICC offices are located in the center. The Facilities Office at Santa Ana College will reserve rooms for use. Call 714-564-6227.

Clubs, Organizations, and Inter-Club Council (ICC)

Numerous student interest groups are active throughout the year. Representatives from each club participate in the Inter-Club Council (ICC), a coordinating body functioning to promote participation in student life. Call 714-564-6323.

STUDENT PLACEMENT

The Student Placement Office assists currently enrolled students in obtaining student assistant/work study employment on-campus and at approved community locations. Students are encouraged to take advantage of this excellent opportunity to gain work skills while attending Santa Ana College.

TESTING CENTER

The Testing Center is located on the second floor of the Santa Ana College library, room 221. Placement testing is provided for English, English Language Development, mathematics, reading and chemistry to help determine present skill level so students can select appropriate classes with the help of a counselor. Career assessment is offered on a counselor referral basis or through counseling classes. Instructor make-up and accommodated exams are

provided when classes are in session. See current class schedule for the calendar of assessment services. For more information about testing services, call 714-564-6148.

TRANSPORTATION

Some classes may be conducted off campus. Unless students are specifically advised otherwise, they are responsible for arranging for transportation to and from the class site. Although the district may assist in coordinating the transportation and/or recommend travel times, route or caravanning, be advised that the district assumes no liability or responsibility for the transportation, and any person driving a personal vehicle is **NOT** an agent of the district.

UNIVERSITY TRANSFER CENTER

The University Transfer Center provides information and assistance to students who are preparing to transfer to four-year colleges and universities. Representatives from universities are available to meet with students individually and provide information about programs, requirements and procedures. The Center also maintains a complete resource library containing college catalogs. In addition, the Center sponsors field trips to selected universities throughout California. For more information, call 714-564-6165.

VETERANS RESOURCE CENTER

The Veterans Resource Center is dedicated to supporting veterans as they transition from military service to college and civilian life. The VRC provides the following services: assistance with accessing VA Benefits, specialized orientations and workshops, academic counseling and/or referrals for VA approved educational plans, and opportunities to meet and socialize with other veterans at the college. Rancho Santiago Community College District is approved by the California Bureau for Private Postsecondary and Vocational Education for the training of veterans and eligible persons. Please call for additional information or assistance (714-564-6050), or come to our office at SAC in R-101.

Eligibility

Veterans who qualify to receive benefits under the Montgomery Bill-Active Duty (Chapter 30), Montgomery Bill-Selected Active Reserve (Chapter 1606/1607), and eligible persons under the Survivors' and Dependents' Educational Assistance Program (Chapter 35) are encouraged to take advantage of their educational entitlement.

Veterans with aggregate active duty after 9/10/01 may be eligible for the post 9/11 Bill (Chapter 33). This program includes a basic housing allowance (BAH), book stipend, and tuition/fees.



Veterans with a service-connected disability may be eligible for vocational rehabilitation (Chapter 31). This program provides eligible veterans with a monthly allowance as well as payment for tuition, most fees, and necessary books and supplies. War orphans, dependents, and survivors of veterans considered 100% disabled as the result of a service-connected disability, who died from those conditions, or who died while on active duty, may be eligible for benefits. These applicants should seek information regarding eligibility and payments from the VA Regional Office in Muskogee, Oklahoma, Phone 1 800-827-1000 or 1-888-442-4551.

Applying for Benefits

Each veteran and eligible person who wishes to enter a college in the Rancho Santiago Community College District must follow the admissions procedures. See index for details on enrolling. A copy of discharge paper—DD214, is required of new Chapter 30/33 veterans and a copy of DD2384 of new Chapter 1606/1607 reservists who are using their educational benefits for the first time. VA forms are available online www.sac.edu/vrc or at the VRC. Please call 714-564-6050 or visit us at SAC R-101.

Transcripts and Program Approval

VA regulations stipulate that prior credit must be evaluated by the end of the second semester of attendance. If the required transcripts are not on file, the VAO will not be able to certify payment beyond the second semester. To avoid any delay in payments, the VAO requests that all official transcripts be on file with the Admissions Office by the end of the first semester of attendance.

Veterans and eligible persons must have each course approved *prior* to registering for each semester. VA requires that the VAO monitor progress towards a specific degree plan. Therefore, for payment purposes, students must select a major and take only those courses on the student educational plan specifically required for that major. College counselors are available to provide comprehensive counseling services for day and evening students. Phone 714-564-6100 for an appointment. If you have attended previous schools, official transcripts must be on file before a college program can be approved by the counselor.

Military Credit

Three units for health education and one unit for exercise science may be granted on the basis of military service when a DD-214 is submitted to Admissions and records. A copy of the student's DD-214 will be forwarded to Admissions for proper credit if it is given directly to the VRC. The credit granted can be used in area F under Plan A. Under Plan B, three units of credit are granted in area E. Military credit is not accepted under Plan C.

Military Transcripts: Military transcripts are currently being accepted and evaluated in Admissions and Records. They may be applied towards electives or actual course equivalency. Official Academic Transcripts are required to be submitted during the first term the student attends the college.

General Information

The Veterans Administration will only pay educational benefits for the period of time that each course is active as shown by the beginning and ending dates in the class schedule. Students must be enrolled at least half time, (6.0 units—regular sessions and 3.0 units—mini and summer sessions) to be eligible for regular payment. Under Chapter 33, students must be more than half time and have at least one campus-based course to receive BAH. A veteran or eligible student attending less than half time can be reimbursed tuition and fees, not to exceed the normal monthly rate for a half time student. **Veterans and eligible persons who wish to receive benefits must notify the VAO at the beginning of each semester by completing a VA benefit request form.** Satisfactory progress must be maintained by all VA applicants. A veteran or eligible student may enroll in open circuit television classes. All those collecting VA educational benefits are required to immediately report any changes of classes, **both adds and drops**, to The Veteran Affairs Office.

Veterans and eligible dependents/ spouse who are on academic probation, below 2.00 grade point average (GPA), or course completion or progress probation, attempted units exceeds 50% of completed units, must show a continued improvement in GPA or course completion with each semester after the below 2.00 GPA deficiency. A student who is on academic probation shall have VA educational benefits payments suspended after showing

two semesters without satisfactory progress towards graduation requirement of 2.00 GPA. In such instances, a student must petition for recertification and must show a counselor-approved program indicating what course of action must be completed to maintain satisfactory progress towards graduation requirements.

WOMEN'S PROGRAMS AND SERVICES

There are multiple activities and courses of special interest to women. A unique program is offered which provides a network of interrelated services to assist students in acquiring the information and encouragement needed to help them achieve goals. New Horizons at Santa Ana College offers counseling, job search support, college credit and fee based courses of particular interest to women.

YESS PROGRAM

The Youth Empowerment Strategies for Success (YESS) Program is a Foster Youth Success Initiative (FYSI) which provides support to qualified Santa Ana College students who have emancipated from the foster care system, were in foster care after their 13th birthday, and who are currently between the ages of 16 and 24. The program focuses on the following services to qualified former foster youth students: academic support workshops, bus passes or parking permits (when available), specialized counseling services, career guidance, financial aid information, independent living programs, study skills courses, and tutoring services. The YESS Program is located within the EOPS Office in the Johnson Center in U-101.



COLLEGE POLICIES AND STANDARDS

ABSENCE/NON PARTICIPATION/ DROP

It is the student's responsibility to withdraw officially from a course via WebAdvisor.

However, because of enrollment demand a student may be dropped by the instructor when not appearing at the first class meeting or not participating in the first course activity designated to account for active enrollment.

A student may be dropped for non participation if he/she has missed in excess of 10% of the total course activities including but not limited to class attendance, discussions, assessments, etc.

Under extenuating circumstances, a student may be reinstated by the instructor.

Note: Only those drops completed prior to the refund deadline are eligible for refund consideration.

ACADEMIC FREEDOM POLICY

The teacher should be free to think and to express ideas, free to select and employ materials and methods of instruction, free from undue pressures of authority, and free to act within his/her professional group. Such freedom should be used judiciously and prudently to the end that it promotes the free exercise of intelligence and student learning. Academic freedom is not an absolute. It must be exercised within the law and the basic ethical responsibilities of the teaching profession. Those responsibilities include:

1. An understanding of our democratic tradition and its methods.
2. A concern for the welfare, growth, maturity, and development of students.
3. The method of scholarship.
4. Application of good taste and judgment in selecting and employing materials and methods of instruction.

(BP4201 Faculty)

ACADEMIC HONESTY POLICY INFORMATION

Introduction

Students at Santa Ana College are expected to be honest and forthright in their academic endeavors. To falsify the results of one's research, to steal the words or ideas of another, or to cheat on an examination, corrupts the essential process by which knowledge is advanced. Academic dishonesty is seen as an intentional act of fraud, in which a student seeks to claim credit for the work or efforts of another without authorization, or uses unauthorized materials

or fabricated information in any academic exercise. As institutions, we also consider academic dishonesty to include forgery of academic documents, intentionally impeding or damaging the academic work of others, assisting other students in acts of dishonesty or coercing students into acts of dishonesty.

Procedures

In cases where a violation of academic honesty is discovered, the faculty member is encouraged to file an "Academic Misconduct Incident Report" form and distribute the form to the appropriate offices listed.

There are two categories of sanctions: Limited and College-wide. Limited sanctions include an academic action such as assigning a lower grade or a grade of "F" for the assignment, project, or test. College-wide sanctions include any sanction that will affect a student's standing with the college-at-large, up to and including suspension or expulsion from the College.

In matters relating to academic honesty violations, the primary responsibility for disciplinary proceedings rests with the instructor and the academic division where the violation allegedly occurred. The Dean of Student Affairs will assist in all College-wide sanctions.

ACADEMIC HONORS

Academic Honors at Graduation

Academic honors are awarded to students who do outstanding coursework leading to graduation from Santa Ana College. No association/affiliation with outside honor societies will be posted to the academic transcript or diploma. Students with Academic Renewal Without Course Repetition are not eligible for Academic Honors. Graduation honors are awarded as follows:

PRESIDENT'S SCHOLAR. The President's Scholar designation is placed on the transcript and diploma of the graduate who has achieved an overall grade point average (GPA) of 3.5 while completing the Honors Program requirements. In addition, the President's Scholar graduate must have completed at least 30 units of coursework within the Rancho Santiago Community College District colleges of which 15 units or more must be honors. All letter grades must be C or better. Rancho Santiago Community College District coursework and all transfer work will be computed in the Honor designated GPA.

WITH HIGHEST HONORS. The highest honors designation is placed on the transcript and diploma of the graduate who

has achieved an overall grade point average (GPA) of 4.0. The highest honors graduate must have completed at least 30 units of coursework within the Rancho Santiago Community College District colleges of which 18 units or more must be letter grades. All letter grades must be A. Rancho Santiago Community College District coursework and all transfer work will be computed in the Honor designated GPA.

WITH HIGH HONORS. The high honors designation is placed on the transcript and diploma of the graduate who has achieved an overall grade point average (GPA) of 3.8. The high honors graduate must have completed at least 30 units of coursework within the Rancho Santiago Community College District colleges of which 18 units or more must be letter grades of A, B, or C. Rancho Santiago Community College District coursework and all transfer work will be computed in the Honor designated GPA.

WITH HONORS. The honors designation is placed on the transcript and diploma of the graduate who has achieved an overall grade point average (GPA) of 3.5. The honors graduate must have completed at least 30 units of coursework within the Rancho Santiago Community College District colleges of which 18 units or more must be letter grades of A, B, or C. Rancho Santiago Community College District coursework and all transfer work will be computed in the Honor designated GPA.

DEPARTMENTAL HONORS. Honors are awarded to students who do outstanding work in their departments. Eligibility is determined by inclusion in the honors categories listed above. Selection is made by departmental faculty with the division dean's approval.

COMPLETION OF HONORS

TRANSFER PROGRAM. Completion of Honors Transfer Program designation is placed on the transcript of the graduate who has achieved an overall grade point average (GPA) of 3.0 while completing the Honors Program requirements. In addition, the Completion of Honors Transfer Program graduate must have completed at least 30 units of coursework within the Rancho Santiago Community College District colleges of which 15 units or more must be honors courses.

SEMESTER ACADEMIC HONORS. An honors list is issued each semester from the President's Office. Students are eligible by completing twelve or more units with a grade point average of 3.5 or better. Pass/no pass units are not considered in the



twelve-unit requirement. Overall G.P.A. must also be a 3.5 or better.

ACADEMIC RENEWAL

Inasmuch as past performance does not always reflect accurately a student's actual ability, Santa Ana College has established a policy of academic renewal.

A student may submit petition to the SAC Admissions Office two or more years after recording of the substandard work to have up to 20 units of below C, lower division, work at any institution disregarded in the computation of the grade point average by completing the Academic Renewal without Course Repetition form.

To be eligible, the student must have completed 30 letter grade units with a grade point average of 2.0 or complete 15 letter grade units with a grade point average of 3.0 in semesters or sessions of academic enrollment from the beginning of the renewal period. Units will be counted from the semester immediately following the substandard work. All semesters following cannot contain any substandard grades.

The petition is submitted to Admissions and Records of the student's home campus (SAC or SCC), and the permanent academic record shall be annotated in such a manner that all work remains legible. Petition approved work will not count toward graduation or general education certification requirements. Students approved for Academic Renewal are not eligible for Academic Honors. After AA/AS degree, or CSU or IGETC certification has been applied for and is posted, academic renewal is **not** accepted.

Academic renewal at a college in the Rancho Santiago Community College District does not guarantee that other institutions will approve such action. This determination will be made by the respective transfer institutions.

* For courses designated as non-repeatable (Title 5 § 55041), only the first two substandard grades may be excluded in computing the student's grade point average (Title 5 § 55042(c)).

ADVANCED PLACEMENT POLICIES

See page 40

ATTENDANCE

Students are expected to attend all sessions of the classes in which they are enrolled. Students should report absences due to illness to the instructor immediately upon returning to class.

AUDITING

Santa Ana College does not permit auditing of classes.

CAMPUS REGULATIONS

1. The Rancho Santiago Community College District supports liberal policies regarding free speech for individual students, college staff, nonofficial college groups, and visiting speakers.
2. Publicity for off-campus activities and organizations must be cleared through the Students Activities Office, in the Johnson Campus Center at Santa Ana College.
3. Posting or distribution of publicity for student activities on campus must be authorized by the Associated Students.
4. Smoking is prohibited on campus except in designated areas. This is an alcohol free and drug free campus. California Code A.B.846, Chapter 342-New Law (2004) prohibits smoking within 20 feet of main entrances or exits of buildings of California Community Colleges. These regulations are available to all students and staff in the office of the Associate Dean, Student Development, at Santa Ana College, in the Johnson Campus Center, phone 714-564-6210 or 714-564-6211.
5. Please refer to Standards of Student Conduct (page 27) for specific policies.

CLASSIFICATION OF STUDENTS

Career Advanced Placement - one who has not graduated from high school.

Freshman - one who has completed 0-29 units.

Sophomore - one who has completed 30 or more units.

Graduate - one who has received an associate degree or higher.

THE COLLEGE-LEVEL EXAMINATION (CLEP) POLICIES

See page 43

COOPERATIVE WORK EXPERIENCE EDUCATION

The Cooperative Work Experience Education Program represents a joint educational venture between the student, a college in the Santa Ana College, and a participating employer. Under terms of the program, qualified students may earn up to four units per semester on a Pass/No Pass basis for educational experiences on the job and coordinated coursework at Santa Ana College. Further information will be found in the course section of the catalog. Call the appropriate division for further information.

COURSE REPETITION

A student who earns a D, F, W, or NP grade may repeat the course up to two times to improve the grade of the substandard work. Withdrawals (notations of W) will count

toward the two allowable repeats. A student may not repeat a course more than two times to alleviate substandard work.

A student may not repeat a course to change a grade of C or above. (Note this same procedure may be followed in case of grades UF and WF which appear on some older transcripts.) Courses repeated under the provisions of this section will be indicated as repeated on the permanent academic record of the student.

Course repetition at Santa Ana College does not guarantee that other institutions will approve such action. This determination will be made by the respective transfer institutions.

Repeatability of Courses

Courses may be repeated under the following circumstances:

Substandard Work: A student has up to three enrollments in the same course (SAC and SCC combined) to receive a passing grade. After three attempts, the student can no longer register for the course within this college district. After two attempts, the student loses the ability to register for the class online. A repeat form must be completed in Admissions and reviewed by an Admissions Office administrator.

Non Repeatable Course: A student who earns a D, F, NP or W grade may repeat the course twice to improve the grade of the substandard work. After three enrollments, the class must be completed outside the Rancho Santiago Community College District. The last grade earned will count in the GPA calculation. Courses repeated under the provisions of this section will be indicated as repeated on the permanent academic record of the student. A student may not repeat a course to change a grade of C or better.

Repeatable Courses: when it is identified as repeatable in the Class Schedule and College Catalog.

Certain activity, performance and skill courses have been designated as repeatable courses and are identified in the catalog's course descriptions. These courses may not be taken more than four times. A student may not repeat a course to change a grade of a course identified as repeatable in the college catalog. All grades earned within the repeatability sequence will count as completed courses regardless of grade earned. After four attempts on one repeated course, two substandard grades may be replaced. An exception to this policy is the student who is working toward a certificate and/or associate degree in a particular discipline which requires more than four courses in one or more activities.



Significant Lapse of Time: Students may be permitted to repeat the course no less than 36 months since the most recent grade was obtained AND an institution of higher education to which a student wishes to transfer has established a recency requirement that the student cannot satisfy without repeating the course (Title 5, §55043). Students may submit a Significant Lapse of Time Form to repeat the course. Grades awarded for courses repeated under this provision shall replace the original grade. Only one repetition may be used for significant lapse of time (W grade counts towards repetition).

Legally Mandated Training: Repetition of courses for which the student is legally mandated by statute or regulation. Pursuant to Title 5 Section 55040, of the California Code of Regulations, Santa Ana College has adopted the following policy with regard to repeating courses for which the student has certified or documented that course repetition is legally mandated.

Course repetition shall be permitted in cases where such repetition is **necessary for a student to meet a legally mandated training requirement as a condition of continued paid or volunteer employment**. Such courses may be repeated for credit, any number of times, regardless of whether or not standard work was previously recorded, and the grade and units received each time shall be included for purposes of calculating the student's grade point average. Santa Ana College reserves the right to require a student to certify or document in writing that course repetition is necessary to complete legally mandated training pursuant to this section.

Variable Unit Courses. When a course is designated as repeatable and is also variable unit, the number of repeats dictates how many times the course may be enrolled in for credit. A variable unit course which is not designated as repeatable may be registered for until the maximum number of units has been attempted. No portion of the class may be repeated to improve your grade point average.

CREDIT BY EXAMINATION

1. Applications for credit by examination may be obtained in the Admissions and Records Office at Santa Ana College. The student will be advised whether a testing fee is to be charged and where it should be paid. Applicants must be currently enrolled at Santa Ana College and be in good standing.
2. The list of courses which may be challenged for credit by examination is available in the division offices at Santa Ana College.

3. Except in the case of Registered Nursing courses, the student must not enroll in a course which is to be challenged. In the event a student decides to challenge a course in which he or she is already enrolled, he or she must withdraw from that course **prior to the end of the second week of instruction**.
4. Credit may be earned only for courses that are: 1) currently listed in the catalog, and 2) specifically designated by the appropriate dean as courses that are eligible for credit by examination. A student may attempt credit by examination only once in a particular course.
5. Students should be aware that some divisions offer credit by examination only on specific dates; therefore, students should obtain examination schedules from the appropriate offices as early in the semester as possible.
6. The dean, in consultation with the department involved, will determine whether a departmental or a standardized examination is to be administered and when and where it will be administered. At this same time, the student will be given a course outline and any other pertinent information detailing subject matter requirements of the course being challenged.
7. Students may apply for credit by examination in sequential courses, but may take examinations for the courses having prerequisites in the sequence only if credit has been earned by examination or coursework in the earlier course(s) of the sequence.
8. Grading of the examination is on a Pass/No Pass basis. Pass represents a grade of "C" or better and will be shown on the transcript as "credit by examination". Grades less than "C" will be reported to the college Admissions and Records Office but not recorded on the transcript. "Pass" grades will be computed as units earned but will not be counted in the grade point average.
9. The examiner shall transmit examination results to the Santa Ana College division office. The division dean will review the examination results and will transmit this information to the Admissions and Records Office.
10. Units for which P is given in this category will not be counted in determining the 12 semester hours of credit in residence required for a certificate or an associate degree.

EXAMINATIONS

It is expected that the instructor will give at least two evaluations of student performance prior to the issuance of mid-term grades and at least one other evaluation

before the final examination. Final examinations are required in all courses.

EXTENUATING CIRCUMSTANCES

Extenuating circumstances are verified cases of accidents, serious illnesses, or other circumstances clearly beyond the control of the student. If such circumstances are verified by the Admissions and Records Office, with consultation of the appropriate faculty, a withdrawal may be authorized and a "W" recorded on the transcript.

Students should file petitions as soon as possible within the semester in which the extenuating circumstance occurred. Also, petitions will NOT be accepted for consideration later than one year following the semester in which the extenuating circumstance occurred.

A student who has attempted a course two times and has received grades of D, F, NP, or W must meet with a counselor and complete a Course Repetition Request before registering a third time.

A student who is a member of an active or reserve United States military service and who receives orders compelling a withdrawal from courses will be granted a "Military Withdrawal" upon verification of such orders. The "Military Withdrawal" can be granted at any time and will not count toward probation or dismissal calculations.

FAMILY EDUCATION RIGHTS AND PRIVACY

As required under the provisions of the Family Education Rights and Privacy Act of 1974, the Rancho Santiago Community College District will make public without student consent only certain directory information. This information consists of the following: a student's name; city of residence; major field; participation in officially recognized activities and sports; weight, height, and age if a member of an athletic team; dates of attendance; degree and awards received; and the most recent previous educational institution or agency attended by the student.

A student may request the Admissions and Records Office to withhold this information. Such request must be in writing and submitted each semester.

F.E.R.P.A. Family Education Rights and Privacy Notification

The Family Education Rights and Privacy Act of 1974 provides colleges the right to consent to disclose personally identifiable information contained in the student's education records to third party vendors who are identified as School Officials and who have legitimate educational interests. A school official has a legitimate educational interest if the official needs



to review an education record in order to fulfill his/her professional responsibility. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including district safety personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees, or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his/her tasks.

Santa Ana College contracts with the following School Officials:

- CCCApply (Unicon)
- Datatel Colleague
- Credentials (Online transcript request)
- ECS Imaging (optical imaging)
- Image Now (optical imaging)
- Xerox
- Auditors (Vicenti-Lloyd-Stutzman)
- Medpro and Quest (Health Center)
- SARS (Counseling center)

GRADES AND GRADE POINT AVERAGE

Grades are based upon the quality of work completed, that is, upon actual accomplishment in courses offered for credit. Credit by examination, Pass/No Pass, "W's," "MW's," "IP's" and "I's" are not figured into grade point averages. The grade point average is computed by dividing all other units attempted into all grade points received. The meaning of each grade and its value in grade points is as follows:

Grade	Grade Points
A - Excellent	4 per unit earned
B - Good	3 per unit earned
C - Satisfactory	2 per unit earned
D - Passing, less than satisfactory	1 per unit earned
F - Failing	0 per unit attempted
P - Pass	0 per unit earned
NP - No Pass	0 per unit attempted
W - Withdrawal	0 (no units earned)
MW- Military Withdrawal	0 (no units earned)
I - Incomplete	0 (no units earned)
IP - In progress	0 (no units earned)
RD - Report delayed	0 (no units earned)
UF - Unauthorized Withdrawal	0 (no units earned)
WF - Withdrawal, Failing	0 (no units earned)

GRADE REPORTS

Grades are available online via WebAdvisor after the end of the semester.

GRIEVANCE PROCEDURES FOR STUDENTS

Rancho Santiago Community College District does not discriminate on the basis of race, color, national origin, ancestry, religion, creed, sex, age, or handicap in its employment or in its educational programs and activities. Students may file a grievance when they believe they have been discriminated against in any of these areas.

Students may file a grievance when they believe they have been deprived of a right granted to students by the Board of Trustees in any of the policies or regulations of the Rancho Santiago Community College District.

The purpose of these grievance procedures is to resolve differences as fairly and expeditiously as possible while preserving the right of students and staff members.

Procedure

1. Students shall first confer with the person who took the action or made the ruling to which they object no later than ten (10) days following the event which prompted the grievance.

The Associate Dean of Student Development will assist the student in arranging an appointment between the student and staff member.

2. If the difference is not satisfactorily resolved, the student shall confer with the person's supervisor.

The Associate Dean of Student Development will assist the student in arranging an appointment between the student and the staff member's supervisor.

3. If the grievance is still unresolved, the student may file a written statement setting forth the nature of the grievance on the prescribed form with the Vice President of Student Services, no later than ten (10) days after conferring with the person's supervisor.
4. The grievance form shall be completed in full and shall include a full description of the grievance, times, dates and pertinent facts and the remedy sought by the student.

A Student Grievance Staff Response form will be sent to both the staff member and a supervisor for completion.

5. The Vice President of Student Services shall select a Student Grievance Panel. The administrator involved then shall forward the completed forms to the panel chair for review and recommendation. The panel shall have the power to make an appropriate investigation of the grievance and shall state the findings and make a recommendation.
6. If the grievance is sustained by the panel, it will recommend appropriate action for relief of the grievance and communicate this in writing to the person(s) to whom the grievance was directed. If the findings of the panel do not sustain the grievance, the panel shall communicate this finding in writing to the student who filed the grievance. The ruling of the Student Grievance Panel is final.

Student Grievance Panel Structure

- one non-voting chair (except in situations of a tie vote)
- one student representative
- one classified representative
- one faculty representative
- one administrative representative

HONORS PROGRAM AND HONORS COURSES

The Honors Program at Santa Ana College offers honors sections of transferable general education courses. These seminar type classes are further characterized by close interaction with Honors Program faculty, small size, and special projects and activities. The major benefits for members of the program include:

- Honors transfer agreements with several four-year institutions that offer minimally "priority consideration for admission," and in some instances guaranteed admission. These transfer institutions include California State University, Fullerton; College of Business and Economics, California State University Stanislaus; La Sierra University; Pomona College; Pitzer College; Occidental College; Chapman University; San Diego State University; UCLA; UCI; UCR; UC Santa Cruz; Whitman College in Washington; Pacific University in Oregon; and Mills College in Oakland.

- Recognition of program completion on the Santa Ana College or the Santiago Canyon College transcript and diploma.
- Designation as a President's Scholar (for those students who qualify).
- Recommendation by the Faculty Officer of the Honors Program.
- Library privileges at some of the transfer institutions.
- Scholarship eligibility.

NOTE: No association/affiliation with outside honor societies will be posted to the academic transcript or diploma.

Any student wishing to become a member of the Honors Program must submit a completed application packet (located in the Honors Program Coordinator's office in room D-428 at Santa Ana College). The following are considered minimum for acceptance into the program:

- Minimum cumulative GPA of 3.0 (in 6 transferable units for students already in college)
- One of the following: completion of English 061 or English for Multilingual Students 112 or American College English 116 with a minimum grade of "C"; qualifying profile for English 101 from English placement process; completion of English 101 or its requirement with a minimum grade of "C"; SAT score



(combined) of 1000, with 450 minimum on either the verbal or math sections.

- Two references

The philosophy of honors studies at the colleges is that honors courses are not more work than non-honors courses. Instead, honors courses are enriched and creative. Students may take honors courses *without being in the Honors Program*, as long as they meet any one of the following guidelines:

- Students who have a minimum cumulative 3.0 GPA, or
- Students meeting the prerequisites of an honors course as stated in the schedule of classes.

All honors courses taught at either college within the Rancho Santiago Community College District are to be taken for a letter grade only, not P/NP.

Note: For the purposes of articulation, course repeatability, and academic renewal, honors courses are equated with their non-honors counterparts. For example, English 101 and English 101H are equated courses, so if a student received a passing grade of “C” or better, he or she cannot take English 101H just to get “H” credit. Likewise, if a student received a non-passing grade in English 101H, he or she could take English 101 and, if the student receives a passing grade in that course, petition to have the English 101H non-satisfactory grade replaced through academic renewal with course repetition.

Honors Transfer Program members who have completed English 101 or English 101H with a minimum grade of “C” and also been in the HTP for at least one semester may also earn up to eight units of honors credit (no more than two courses’ worth of credit) through honors project contracts. Contracts will earn honors credit only when both the work for the contract and the regular coursework in the UC transferable course tied to the contract has been completed and has earned a grade of “C” or better. Contracts require the approval of the instructor of record for the course, the area division dean, and the HTP Coordinator. Contract forms are available at the Honors Program Coordinator’s office. For more information, contact the Honors Program Coordinator, Kathy Patterson, (714-564-6528) at Santa Ana College.

HOURS BY ARRANGEMENT

Students are obligated to carry out hours by arrangement in designated facilities, which are normally available from 8:00 a.m. to 10:00 p.m., Monday through Thursday, and 8:00 a.m. to 12:00 noon on Friday.

INCOMPLETE WORK

When a student has attended regularly but because of illness or other unavoidable

circumstances is unable to complete coursework or take the final examination, a grade of “I” may be given. If an “I” is issued, the instructor completes the Incomplete Grade Form which includes the condition(s) for removal of the “I”, and the grade to be assigned if the condition(s) are not completed. The work thus missed must be made up no later than one year following the end of the term in which it was assigned. A student may petition for a time extension due to unusual circumstances. It is the student’s responsibility to contact the college Admissions and Records Office in such cases.

A final grade will be assigned when the work stipulated has been completed and evaluated according to the conditions set forth by the instructor or when the time limit for completing the work has passed.

INDEPENDENT STUDY

Independent study allows students to pursue projects under faculty advisement and supervision. The projects may be directed field experience, research, or development of skills and competencies. Independent study credit may be earned in any discipline. Transfer credit is indicated as Independent Study 199.

Independent study projects are normally for one unit of credit and require a minimum of 48 hours of directed work per unit of credit. Within the 48-hour minimum, the instructor meets with each student on a weekly basis for at least one hour or a minimum of 16 hours for each one-unit project. The proposed project must be approved by the supervising instructor and the dean, with notification to the Vice President, Academic Affairs. Normally projects are for one unit. Independent study may be repeated for credit for a maximum of three units. Recommended projects of more than one unit must also have prior approval from the Vice President, Academic Affairs. Independent study is offered on a pass/no pass basis.

Independent study projects are normally undertaken in the department or division of the student’s academic major. Exceptions to this rule must be approved by both the division dean of the student’s academic major and the division dean to which the student is applying for exception.

To be eligible for independent study a student must be concurrently enrolled in at least one other class at either Santa Ana College or Santiago Canyon College and must show evidence of competence in his academic major and the area in which he proposes to do independent study.

INTERNATIONAL BACCALAUREATE POLICIES

See page 45

OPEN COURSES

The policy of this district is that, unless specifically exempted by statute or regulation, every course, course section, or class, reported for state aid, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to regulations contained in Article 2.5 (commencing with Section 55200) of Sub Chapter 1 of Chapter 6 of Title 5 of the *California Code of Regulations*.

PASS/NO PASS

Pass/No Pass encourages students to explore academic areas outside a major field.

1. Courses in the student’s major field may not be taken under the Pass/No Pass policy except as designated in all Apprenticeship programs, Criminal Justice, Fire Technology, Human Development, Pharmacy Technology, Registered Nursing, Women’s Studies, Work Experience, and through credit by examination or assessment.
2. Every university has a limitation on the number of courses/units that can be taken for Pass/No Pass and applied to graduation and may require General Education taken Pass/No Pass to be retaken for a letter grade. Universities prefer that students have letter grades in English, mathematics, speech, and critical thinking courses. Courses that meet major requirements must be taken for a letter grade. Also, Pass/No Pass grades could have a negative effect on scholarships and international students. In addition, students who plan to pursue graduate or professional studies later are advised to be selective in opting for courses on a Pass/No Pass basis. If the student is unclear about requirements, it is best to consult with a counselor before using the Pass/No Pass option.
3. Except as in item number one above, a maximum of 6 Pass/No Pass units may be carried during any one semester.
4. A maximum of 12 Pass/No Pass units is allowed for any degree program. This does not include units taken under credit by examination or assessment, or in Human Development, Pharmacy Technology, Registered Nursing, Women’s Studies and Work Experience.
5. Pass/No Pass petitions are available at the Admissions and Records Office at Santa Ana College, and must be submitted between the first and fifth week of the fall and spring terms or thirty percent (30%) of the term, whichever is less. Pass/No Pass status cannot be changed back to a letter grade. Petition for Exception to Academic Regulation (A and G) will not be approved.
6. Pass indicates a “C” or better.



PROBATION – DISMISSAL

A student's academic standing is calculated and reviewed at the end of each fall and spring semester, based only on his/her SAC/SCC cumulative GPA. There are three categories of academic standing: probation, subject to dismissal, and dismissal.

Probation

1. **Academic probation.** After attempting twelve or more units, a student is placed on probation when the SAC/SCC cumulative grade point average for all work attempted falls below 2.0. (W's are counted in the attempted units).
2. **Progress probation.** A student who has attempted a total of twelve units will be placed on progress probation when the percentage of all units in which a student has enrolled and for which entries of "W", "I", and/or "NP" are recorded reaches or exceeds fifty percent.

Academic/Progress Probation Intervention

Students placed on academic/progress probation are required to attend a counseling intervention workshop. An email notification is sent to the student and a registration hold is placed on the student record until completion of the workshop.

Loss of Priority Registration

1. Academic probation – students who have two consecutive semesters with a CUM GPA below 2.0 will lose priority registration for the next registration period. Their registration date will be after all new applicants.
2. Progress probation – students are placed on progress probation when the percentage of coursework at SAC/SCC that has an entry of "W", "I", "NP", and "NC" reaches or exceeds fifty percent (50%) of the coursework attempted.

IMPORTANT NOTE: Registration priority shall be lost at the first registration opportunity after a student is placed on academic or progress probation or any combination thereof for two consecutive terms.

Student Right to Appeal

A student has the right to appeal an exception to a current Santa Ana College academic policy, including academic probation and progress probation. Student must complete and submit a Petition for Exception to Academic Regulation (A and G).

Removal From Probation

1. Academic probation. A student on academic/progress probation shall be removed from probation when the student's cumulative grade point average reaches 2.0 or higher.
2. Progress probation. A student who has been placed on progress probation shall

be removed from probation when the percentage of units for which entries of "W", "I", and/or "NP" falls below 50%.

Subject To Dismissal

A student's academic standing is calculated and reviewed at the end of fall and spring semester, based upon a SAC/SCC cumulative grade point average. Summer is not counted as it is considered a session because it is not a full semester. A student who is on academic probation shall be subject to dismissal if the student earned a SAC/SCC cumulative grade point average (GPA) of less than 2.0 in all units attempted in each of 2 consecutive semesters.

Dismissal

1. **Academic dismissal.** A student's academic standing is calculated and reviewed at the end of fall and spring semester, based upon a SAC/SCC cumulative grade point average. Summer is not counted as it is considered a session because it is not a full semester. A student who is on academic probation shall be dismissed if the student earned a SAC/SCC cumulative grade point average (GPA) of less than 2.0 in all units attempted in each of 3 consecutive semesters.
2. **Progress dismissal.** A student who has been placed on progress dismissal shall be dismissed when the percentage of units in which the student has enrolled and for which entries of "W", "I", and/or "NP" are recorded reaches or exceeds 50% for three consecutive semesters.
3. **Dismissal after fall semester.** A student may be given the academic standing of "Subject to Dismissal" at the end of fall semester when his/her SAC/SCC cumulative GPA falls below 2.0 after three consecutive semesters. The student is given the grace period of spring semester to remain in school. However, an academic hold is placed on the student record in April to prevent any further registrations until all grades have been reviewed at the end of spring semester. If the student achieves a 2.0 GPA for the spring semester, the student is allowed to remain at the college on probationary status, despite a SAC/SCC cumulative GPA of less than 2.0. If the 2.0 GPA for spring is NOT achieved, the student is academically dismissed. Students who are academically dismissed have a HOLD placed on their record and receive an email notifying them of their academically dismissed status (AD).
4. **Petition for reinstatement after dismissal.** A student may initiate the process for reinstatement after dismissal at the end of spring semester by completing the Petition for Reinstatement After Dismissal form.

This form is available in the Admissions and Records Office. A student can be reinstated if the spring semester GPA is 2.0 or better. If the spring semester GPA is less than 2.0, the student can petition using the Exceptions to Academic Regulations petition for reinstatement. This committee meets the week prior to the start of the fall semester. A student should make alternative plans in cases involving a denied petition. Students who have SAC as a home campus submit their petition to the SAC Admissions and Records Office.

5. **Consequence of academic dismissal.** A student cannot register for classes at SAC or SCC for one full semester. When the student returns to SAC or SCC after "sitting" out one semester, the student returns on academic probation. In order to remain at SAC or SCC, the student must achieve a 2.0 semester GPA in the spring and fall semesters.

When a student is academically dismissed and the last semester GPA is less than 2.0, the student is denied reinstatement and may not enroll at SAC or SCC for one semester before reapplying to either college.

REGISTERED SEX OFFENDER INFORMATION

Information concerning registered sex offenders can be obtained from the Santa Ana Police Department, 3rd Floor Lobby, 60 Civic Center Plaza, Santa Ana, on Mondays through Fridays, from 9am to 12pm and from 1-4pm; and from the Orange Police Department, Youth Services Bureau, 1107 North Batavia Street, Orange, by calling 714-744-7311 for an appointment.

"Sex offenders are required to register with the police in the jurisdiction in which they reside and at institutions of higher learning if they are students there or if they work there as employees, contractors, or volunteers. Sex offenders who may be required to register should do so at the Santa Ana Police Department if attending Santa Ana College or at the Orange Police Department if attending Santiago Canyon College."

Remedial Course Limit

A student may complete a maximum of 30 semester units of basic skills remedial courses. Remedial courses include non-degree or pre-collegiate basic skills classes in math, English, reading, learning and study skills.

A waiver is required beyond 30 units. Students must show a "C" or better or a 2.0 GPA in remedial courses to qualify for a waiver. Waiver forms are available in counseling.

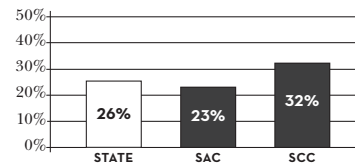


RSCCD RATES OF STUDENT PROGRESS STUDENT RIGHT-TO-KNOW ACT

The rates below are placed here in accordance with the federally mandated Student Right-To-Know Act.

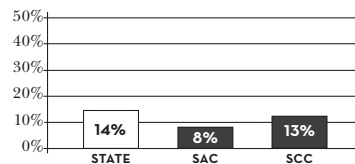
Of the degree, certificate or transfer seeking first-time full time freshman students who entered RSCCD colleges in Fall 2010, the “completion rate” represents those students who earned an Associates Degree, Certificate of Achievement, or 60 UC/CSU transferable credits within three years.

2010 COHORT COMPLETION



The “transfer rate” represents non-completer students who transferred to any other two- or four-year institution within three years.

2010 COHORT TRANSFER



These rates do not represent the success rates of the entire student population at RSCCD colleges, nor do they account for student outcomes occurring after this three-year tracking period.

RIGHT TO REVIEW AND CHALLENGE RECORDS

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student’s education records within 30 days of the day the college receives a request for access.
Students should submit to the Registrar, or Associate Dean of Admissions, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected.
2. The right to request the amendment of the student’s education records that the student believes is inaccurate.
Students may ask the college to amend a record that they believe is inaccurate. They should write the college official responsible for the record, clearly identify the part of the record they

want changed, and specify why it is inaccurate.

If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll. [NOTE: FERPA requires an institution to make a reasonable attempt to notify the student of the records request unless the institution states in its annual notification that it intends to forward records on request.]

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Santa Ana College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901

If students wish, copies of materials contained in the files subject to their review will be provided at a cost of \$1.00 per page.

SEXUAL HARASSMENT POLICY

It is the policy of the Rancho Santiago Community College District to provide an educational, employment, and business environment free of unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by State and Federal law.

The Rancho Santiago Community College District forbids any form of sexual harassment. Prompt disciplinary action will be taken against any student or employee engaging in sexual harassment.

If you feel that you have been the victim of sexual harassment, please contact the Rancho Santiago Community College District Vice Chancellor of Human Resources at 714-480-7489 or the Associate Dean of Student Development at 714-564-6211.

SMOKING AND TOBACCO USE IN DISTRICT FACILITIES AND VEHICLES

Smoking is prohibited in all campus areas including all District owned, rented or leased properties and vehicles, except in designated parking lot areas and within 20 feet of entrances, exits, and operable windows.

Smoking is defined as the use of products containing tobacco and/or nicotine, including but not limited to smokeless tobacco, clove cigarettes, or any other smoking products, and any and all electronic or “e-cigarettes”, which are unapproved nicotine delivery devices, unregulated by the FDA.

Public performances in which smoking is an integral and necessary part of the production are excluded from these regulations.

These regulations apply to employees, students, visitors and all other persons who use District owned or rented/leased facilities and vehicles. Failure to comply with these regulations may result in disciplinary action.

It is the responsibility of every District employee to comply with these regulations and report violations to District Safety.

These regulations do not supersede more restrictive policies which may be in force under State and Federal regulations. (AR-3570)

SOLOMON AMENDMENT FOR MILITARY RECRUITERS

The Solomon Amendment is a federal law that allows personally identifiable student information to be released to recruiters that would have been denied them under



FERPA. This law mandates that institutions receiving federal financial aid must fulfill military recruitment requests for access to campus and lists of students. If Santa Ana College fails to comply with these requests from military recruiters, the college will lose federal financial aid funding. Santa Ana College releases only directory information to military recruiters.

STANDARDS OF STUDENT CONDUCT

Guidelines for Student Conduct are set forth in the California Education Code, California Administrative Code, Title V, policies of the Board of Trustees, and all civil and criminal codes. Students enrolling in district educational programs assume an obligation to obey state law and district rules and regulations governing the conduct of students.

Students who enroll in those instructional programs in which the college has affiliations with various outside associations must comply with the college's policies and procedures and also with the outside associations' policies and procedures. This includes but is not limited to students enrolled in the programs of Cosmetology, Fire Academies, Criminal Justice Academies and Nursing.

Guidelines For Student Conduct

The following represent violations for disciplinary action, up to but not limited to expulsion, that may be taken:

- A. Dishonesty, cheating, plagiarism, lying, or knowingly furnishing false information to the district or college officials performing their duties.
- B. Forgery, alteration, or misuse of district documents, records, or identification.
- C. Willful misconduct that results in damage to any real or personal property owned by the district or district employees (damage includes, but not limited to vandalism, such as cutting, defacing, breaking, etc.).
- D. Obstruction or disruption of pedestrian or vehicular traffic or of teaching, research, administration, or of other district activities on or off District premises. This includes obstruction or disruption of administration, disciplinary procedures, or authorized college activities.
- E. Assault, battery, or any threat of force or violence upon a student, college personnel, or campus visitor; willful misconduct which results in injury or death to a student, college personnel, or campus visitor. This includes fighting on district property or at a district sponsored event, on or off district premises.
- F. Detention of any person on district-owned or controlled property or at district-sponsored or supervised functions or other conduct which threatens or endangers the health or safety of another.
- G. Theft of any property of the district which includes property of a member of the district community or a campus visitor.
- H. Unauthorized entry into or unauthorized use of district property, supplies, equipment, and/or facilities.
- I. Misrepresentation of oneself or of an organization to be an agent of the district.
- J. Sexual assault or physical abuse, including rape, forced sodomy, forced oral copulation, rape by a foreign object, sexual battery, or threat or assault, or any conduct that threatens the health and safety of the alleged victim, which includes students, college personnel, or campus visitors.
- K. Use, possession, distribution, or being under the influence of alcoholic beverage on district property or at any district sponsored event.
- L. Use, possession, distribution, or being under the influence of narcotics, other hallucinogenic drugs or substances, or any poison classified as such by Schedule "D" in Section 4160 of the Business and Professions Code on District property or at any District-sponsored event except as expressly permitted by law.
- M. Expression which is libelous, slanderous, obscene or which incites students so as to create a clear and present danger of commission of unlawful acts on district premises, or violation of district regulations, or the substantial disruption of the orderly operation of the college.
- N. Engaging in lewd, indecent, or obscene behavior on district property or at any district-sponsored function.
- O. Possession or use while on the district premises, or a district-sponsored function, of any firearm, knife, explosive, or other dangerous object, including but not limited to any facsimile firearm, knife, or explosive. Exceptions include those participating in a criminal justice educational program who are authorized such possession or those who are enrolled in a course which authorizes such possession.
- P. Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any district policy or administrative regulation.
- Q. Engaging in harassing or discriminatory behavior based on race, sex (i.e., gender), religion, age, national origin, disability, sexual orientation or any other status protected by law.
- R. Continuous disruptive behavior or willful disobedience, habitual profanity or vulgarity, open and persistent abuse of college personnel, or open and persistent defiance of the authority of college personnel, which includes physical as well as verbal abuse, including the use of racial epithets and hate speech.
- S. Disruptive written or verbal communication, vulgarity, open and persistent abuse of other students which include verbal abuse, racial epithets and hate speech.
- T. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the Board of Trustees.
- U. Violation of the Computer Usage Policy is applicable to students using computer classrooms, computer labs, the wireless network, or other locations on and off district property. A violation is considered any of the following:
 - (a) Accessing with or without permission, or causing to be accessed without authorization, altering, damaging, deleting, hacking, destroying, or otherwise using any data, computer, computer system, computer software and programs, or computer network belonging to or used by the college or any member of the District.
 - (b) Accessing with or without permission, taking, copying, or making use of any data from a computer, computer system, or computer network, or taking or copying any supporting documentation, whether existing or residing internal or external to a computer, computer system, or computer network belonging to or used by the college or District.
 - (c) Using or causing to be used computer services without permission.
 - (d) Disrupting or causing the disruption of computer services or denying or causing the denial of computer services to an authorized user of a computer, computer system, or computer network belonging to or used by the college or District.
 - (e) Introducing any computer contaminant or virus into any computer, computer system, or computer network belonging to the college or District.
 - (f) Sending any message using any computer system or network without authorization or sending any message in the name of another person or entity.



- (g) Using any account or password without authorization.
- (h) Allowing or causing an account number or password to be used by any other person without authorization.
- (i) Accessing or causing to be accessed, downloading or causing to be downloaded, pornographic or obscene materials except when accessing such material which is part of the instructional process or assignment for a class in which the student is currently enrolled.
- (j) Use of systems or networks for personal commercial purposes.
- (k) "Cyberstalking", which is to be understood as any use of the college or district computer system, computer network, or computer programs to stalk another person via excessive messages or inquiries, inappropriate or threatening messages, racially motivated communications, photos or other means of communication.

V. Any act constituting good cause for suspension or expulsion, or violation of district policies or campus regulations.

For additional information, please refer to the Student Handbook online at www.sac.edu under the Student Life page. Students and Student Services

Procedures for Student Grievances Regarding Grades

Education Code 76224 states:

(a) When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetency, shall be final.

Procedure

1. Student shall meet with the instructor to discuss the grade.
If the issue is not resolved and the student believes that the grade is based on a mistake, fraud, bad faith, or incompetency, (EC 76224), he/she may appeal in writing to the Division Dean. Such an appeal must be made within a one year period following the semester which the grade was assigned.
2. Forms for the written appeal may be found in any divisional Dean's office or the Office of the Chief Student Services Officer of the campus.
3. The student may be requested to set-up an appointment with the appropriate Division Dean to discuss the written grievance.

4. The appropriate Division Dean will review the allegations and consult with the instructor.
5. The Division Dean will review the issue and will notify the student and instructor in writing of his/her decision.
6. The decision of the Division Dean is final.

STUDENT CONSUMER INFORMATION – RIGHT-TO-KNOW DISCLOSURE INFORMATION

Federal regulations require all campuses to provide specified information to prospective and current students, staff and the general public. Listed below are those items that must be available for review per federal regulation.

The federal Higher Education Act, the federal Equity in Athletics Disclosure Act (EADA), and regulatory guidance provided in the Code of Federal Regulations (CFR) require direct individual notices of prescribed information to certain target audiences including prospective students; currently enrolled students; current employees; parents, coaches and counselors of prospective student athletes; and the general public. Disclosures are to include crime/security statistics, student completion/graduation rates, FERPA privacy/security rights, financial aid program information, and gender-specific information on athletic participation and financial support.

Please go to www.sac.edu and click on "Discover SAC" to review all the current Student Consumer Information including Gainful Employment disclosures.

STUDY LOAD

In order to meet the graduation requirements in four semesters, students should carry an average of 15 units each semester. Students will ordinarily not be allowed to register for more than 18 units.

When individual circumstances may require additional unit demand, an overload program in excess of 18 units may be approved for students who have maintained a B average or have satisfactory test scores on SCAT, SAT, ACT, or other similar measures that predict success, including the counselor's assessment of the difficulty of the program. Approval for such overloads may be secured from college counselors or the Dean-Counseling.

A summer session load should not exceed the equivalent of one unit per week or approximately nine units for an 8-week session. If over 9 units for summer or over 6 units for intersession.

TRANSCRIPTS

Students may obtain an official transcript of records by filing in person, online (www.sac.edu), or mailing a request to the Admissions and Records Office, Santa Ana College, 1530 W. 17th Street, Santa Ana, CA 92706. The first two transcripts will be issued without charge, thereafter, a \$3.00 charge will be assessed for each additional transcript. A \$8.00 special handling fee will be charged for express transcripts. FedEx Next Day Delivery is available for an additional cost. All official transcripts are copies of the student's permanent record in the Office of Admissions and Records at the college. Only records prepared and issued directly from Admissions and Records will be considered official or certified for accuracy. Transcripts from other institutions are property of the college and will not be released.

Admissions and Records does not hold transcripts for final grades. It is the student's responsibility to verify that all grades have been posted via WebAdvisor before requesting transcripts.

TRANSFER CREDIT

Santa Ana College will give credit for college units earned at another regionally accredited college or university. In order for transfer units to be applied towards a petition for degree or transfer certification, all official transcripts from other colleges must be on file in Admissions office.

UNIT OF CREDIT

A unit of college credit represents three hours of student time each week for a semester; one hour of scheduled classroom lecture and two hours in outside preparation. A longer time is scheduled for laboratory courses since more of the work is done in the classroom. One full quarter unit is equal to two-thirds of a semester unit.

WITHDRAWAL FROM CLASS

Students who cannot continue in a course have an obligation to withdraw officially. Students are encouraged to consult with instructors concerning class withdrawals.

Students must officially withdraw by the web through the last day of the 12th week of instruction (or 75 percent of a term, whichever is less) and receive a transcript symbol of "W".

All instructor-initiated drops "EA" (Excessive Absence) through the 12th week or 75 percent of the class, whichever is less, will be assigned a "W".

The academic record of a student who remains in a class beyond the time allowed by district policy must reflect a symbol other than a "W", except under extenuating circumstances.



DEGREES, CERTIFICATES AND TRANSFER PLANNING

ASSOCIATE DEGREES

The general education coursework required for the associate degree at Santa Ana College is listed on page 37 (Plan A).

Completion of the general education pattern for the California State University listed on page 38 (Plan B) or the Intersegmental Transfer Curriculum "IGETC" listed on page 39 (Plan C) also fulfill the general education requirements for the Santa Ana College Associate Degree.

The associate degree is a certification of the student's satisfactory completion of a program of study with a specific major or area of specialization. The associate degree is normally completed in two years and may be compared with the baccalaureate degree which is normally completed in four years.

Associate degrees are commonly conferred by community colleges. They are usually of two types, the associate in arts and the associate in science. The distinction between the associate in arts and the associate in science degrees lies in the majors. If the major is in the fields of engineering, physical or biological science, or occupational curricula, the degree conferred is usually the associate in science. Otherwise the associate in arts degree is conferred.

Ordinarily associate degrees have one of two major purposes. Either the program of study prepares the individual for transfer to a four-year college or university, or the program of study is intended to prepare the student for immediate employment.

The requirements for the associate degree include the specific courses in the major and what is called a general education or breadth requirement. The specific details concerning both the major and the general education requirements are described in Associate Degree Requirements (see index).

Courses intended to fulfill the major requirements may not be taken under the Pass/No Pass option.

CERTIFICATE OF ACHIEVEMENT PROGRAMS

A Certificate of Achievement (18 or more units or state approved under 18 units) is a verification of achievement in a particular academic or occupational area, and it will be included on the official transcript. Certificate programs normally include only those courses which have a direct bearing upon specialized occupational competency since the certificate has the sole objective of immediate employment in a specialized area. For this reason there is no general education requirement in a certificate program. Santa Ana College certificate of achievement programs are described in the catalog section on College Credit Instructional Programs. To qualify for a certificate, a candidate must meet the following requirements:

1. **Courses:** Courses are designated for the specific certificate.
2. **Grades:** At least a C grade in each course required for the certificate, unless otherwise specified. Credit by Examination may also be used to gain credit for required courses.
3. **Pass/No Pass:** A pass/no pass course is acceptable toward the certificate if it is required for the certificate and (a) offered on a pass/no pass basis only or (b) if the pass/no pass is earned on the basis of credit by examination.
4. **Residency:** Twelve units completed at Santa Ana College. (At least six of the units must be in courses required for the certificate.)
5. **Petition:** Petition for certificate filed by the student with the Office of Admissions and Records at Santa Ana College.

CERTIFICATE OF PROFICIENCY PROGRAMS

A certificate is under 18 units and/or is not a state approved program. A certificate is verification of completion in a particular subject matter. A certificate will NOT be included on the official transcript. Certificate programs include only those courses which focus on vocational skills. The certificate has the sole objective of employment in a specialized area, and for this reason there are no general education requirements in a certificate program. Santa Ana College certificate programs are described in the catalog section on College Credit Instructional Programs.

DISTANCE EDUCATION

Distance education courses are Santa Ana College credit courses that give students the opportunity to complete most of their coursework outside of the classroom, through the Internet. The courses are academically equivalent to on-campus courses and support our district mission to provide quality educational programs and services that address the needs of our diverse students and communities. *Online* courses require students to have computer and Internet access with an individual email account. Students may also use computers in some campus facilities. The majority of the coursework is done online; however, some classes may require proctored testing on-campus. *Hybrid* (blended) courses combine on-campus instruction with online learning. Classes may meet at least once during the semester. Details of scheduled course instruction is available in the schedule of classes, WebAdvisor, and at the Distance Education website, www.sac.edu/disted.

The Online Degree Pathway Program is a program offered through Distance Education which allows students to learn and study collaboratively in a student cohort that takes prescribed coursework in an accelerated 8-week course structure. There are currently three online pathways:

- Associate in Science in Business Administration for Transfer (A.S.-T in Business Administration); this degree is for transfer to CSU and can be completed in 2 years
- Associate in Arts, A.A. in Liberal Arts Degree, 2 year completion
- Business Administration Major Preparation for CSU, Fullerton, 1 year completion

For Online Degree Pathway information, please visit our website: www.sac.edu/onlinepathway, call (714) 564-6725, or email us at sac_disted@sac.edu.



REQUIREMENTS FOR THE ASSOCIATE IN ARTS FOR TRANSFER (A.A.-T) OR ASSOCIATE IN SCIENCE FOR TRANSFER (A.S.-T)



Associate Degree for TransferSM

California community colleges are now offering associate degrees for transfer to the CSU. These may include Associate in Arts (A.A.-T) or Associate in Science (A.S.-T) degrees. These degrees are designed to provide a clear pathway to a CSU major and baccalaureate degree. California community college students who are awarded an A.A.-T or A.S.-T degree are guaranteed admission with junior standing somewhere in the CSU system and given priority admission consideration to their local CSU campus or to a program that is deemed similar to their community college major. This priority does not guarantee admission to specific majors or campuses.

Students who have been awarded an A.A.-T or A.S.-T are able to complete their remaining requirements for the 120-unit baccalaureate degree within 60 semester or 90 quarter units.

Santa Ana College offers numerous A.A.-T and A.S.-T degrees. To find out which CSU campuses accept each degree, please meet with a SAC counselor. You may also go to www.sb1440.org/counseling.aspx and scroll down to "Available Degree Pathways;" then click on the link available at "CSU Similar Degree Report." **An A.A.-T or A.S.-T degree may not be the best option for students intending to transfer to a particular CSU campus, or to a university or college that is not part of the CSU system.** Current and prospective community college students are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs.

For SAC majors offering an A.A.-T or A.S.-T degree students may choose to earn the A.A.-T or A.S.-T (option 2) OR an alternate degree(s) for the major (option 1), but not both. Exceptions to this can be made and will be considered for students submitting a Petition for Exception to Academic Regulation.

Requirements

Student completion requirements for the associate degree for transfer:

1. 60 semester or 90 quarter CSU transferable units. At least 12 of the units must be earned at Santa Ana College.
2. the California State University General Education-Breadth pattern (CSU GE Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
3. a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district (see Instructional Programs portion of the catalog).
4. obtainment of a minimum grade point average (GPA) of 2.0.
5. earn a grade of C or better in all courses required for the major or area of emphasis.

Santa Ana College currently offers the following Associate in Arts and Associate in Science for Transfer degrees:

Administration of Justice
Art History
Business Administration
Communication Studies
Computer Science
Early Childhood Education
Elementary Teacher Education
English
Geography
Geology
History
Journalism
Kinesiology
Mathematics
Music
Political Science
Psychology
Sociology
Spanish
Studio Arts
Theatre Arts

See the Instructional Programs Section of this catalog for major requirements. Additional degrees were pending approval from the California Community College Chancellor's Office at the time of catalog publication

Course Substitutions and Reciprocity, Policy and Procedures

Students who have completed courses at another California community college, a regionally accredited institution and/or completed an external exam such as AP, CLEP, or IB may apply the coursework or exam results toward A.A.-T/A.S.-T major requirements as follows:

1. A course with a C-ID designation which is completed at another California community college will be substituted for a SAC course that meets an Associate Degree for Transfer (ADT) major requirement designated with the same C-ID number. SAC departmental approval is not required.
2. A course without a C-ID designation which is completed at a regionally accredited institution, other than a California community college, will be reviewed by SAC discipline faculty. Course-to-course substitution will be granted based on discipline faculty determination of comparability to a SAC course with the approved C-ID designation for the given ADT. Course-to-course substitution will be granted in accordance with the state-wide C-ID descriptor when the SAC course does not have an approved C-ID designation, but a statewide C-ID descriptor exists. When no such descriptor exists, course substitution will be based on discipline faculty determination of comparability to a SAC course included on the ADT.
3. Students who have completed an external examination such as AP, CLEP, and IB are granted course credit toward ADT major requirements as listed in the SAC catalog. (Students should be aware that AP credit may be awarded/counted differently by the transfer institution.)
4. A course completed at another California community college that is approved as part of an associate degree for transfer will be applied to the corresponding Santa Ana College Associate Degree for Transfer (ADT) in the corresponding SAC ADT area. Courses completed at other California community colleges must be part of the ADT at the time the student completed the course. Courses completed at other CCC's prior to ADT approval will be "grandfathered".



CERTIFICATE AND ASSOCIATE DEGREE PROGRAMS AT SANTA ANA COLLEGE

Accounting, Page 54

- Accounting Degree (sac.acct.aa)
- General Accounting Certificate (Transcribed) (sac.acctg.ca)
- Computerized Accounting–QuickBooks Option Certificate (Transcribed) (sac.acctq.ca)
- Computerized Bookkeeping–QuickBooks Option Certificate (Transcribed) (sac.acctbq.ca)
- Accounting with Sage MAS Software Certificate (Transcribed) (sac.acctm.ca)
- Computerized Bookkeeping–Sage MAS Software Certificate (Transcribed) (sac.acctbm.ca)
- Accounting and Financial Planning Certificate (Untranscribed) (sac.acctf.cert)
- Enrolled Agent Certificate (Untranscribed) (sac.acctea.cert)
- Microsoft Dynamics for Financial Accounting Certificate (Untranscribed) (sac.acctdf.cert)
- Microsoft Dynamics for Project Management and Business Planning (Untranscribed) (sac.acctdm.cert)

American Sign Language, Page 56

- American Sign Language Certificate (Transcribed) (sac.sign.ca)

Anthropology, Page 56

- Anthropology Degree (sac.anth.aa)

Art, Page 57

- Option 1: Art Degree (sac.art.aa)
- Option 2A: Associate in Arts in Art History for Transfer (sac.arth.aat)
- Option 2B: Associate in Arts in Studio Arts for Transfer (sac.start.aat)
- Crafts Certificate A–Jewelry Emphasis Certificate (Transcribed) (sac.artjw.ca)
- Crafts Certificate D–Ceramics Emphasis Certificate (Untranscribed) (sac.artce.cert)
- Art-Graphic Design Degree (sac.artgd.aa)
 - Degree Program A–Professional emphasis or transfer preparation to art school
 - Degree Program B–Transfer to State University
- 3-D Modeling and Animation A–Art Emphasis Certificate (Transcribed) (sac.art3a.ca)
- 3-D Animation B–Television/Video Communications Emphasis Certificate (Transcribed) (sac.art3b.ca)
- 3-D Modeling and Animation C–Video Game and Interactive Media Art Emphasis Certificate (Transcribed) (sac.art3c.ca)
- 3-D Modeling and Animation D–Previsualization Emphasis Certificate (Transcribed) (sac.art3d.ca)
- Art-Digital Media Arts Degree (sac.artdm.aa)
- Digital Media Arts Certificate A–Graphic Design Emphasis (Transcribed) (sac.artdg.ca)
- Digital Media Arts Certificate B–Web Design Emphasis (Transcribed) (sac.artdw.ca)

Automotive Technology, Page 60

- Automotive Technology Degree (sac.auto.as)
- Advanced Engine Performance Option Certificate (Transcribed) (sac.autae.ca)
- Chassis Service Option Certificate (Transcribed) (sac.autcs.ca)
- Drive Train Service Option Certificate (Transcribed) (sac.autdt.ca)
- Engine Performance and Electrical Option Certificate (Transcribed) (sac.autep.ca)
- Engine Service Option Certificate (Transcribed) (sac.autes.ca)

Biology, Page 62

- Biological Science Degree (sac.biol.as)

Biotechnology, Page 62

- Biotechnology Lab Assistant Certificate (Untranscribed) (sac.biola.cert)

Black Studies, Page 62

- Black Studies Degree (sac.blst.aa)

Business, Page 62

- Option 1: Business Administration Degree (sac.bus.as)
- Option 2: Associate in Science in Business Administration for Transfer (sac.bus.ast)

Business Applications and Technology, Page 63

- General Business Applications and Technology Degree (sac.ba.aa)
- General Business Applications and Technology Certificate (Transcribed) (sac.ba.ca)
- Digital Publishing Degree (sac.badp.aa)
- Digital Publishing Certificate (Transcribed) (sac.badp.ca)
- Microsoft Office Professional Degree (sac.bamso.aa)
- Microsoft Office Professional Certificate (Transcribed) (sac.bamso.ca)
- Office Management Degree (sac.baom.aa)
- Office Management Certificate (Transcribed) (sac.baom.ca)
- Spanish/English Interpretation and Translation Option Certificate (Untranscribed) (sac.base.cert)

Chemistry, Page 66

- Chemistry Degree (sac.chem.as)

Chicano Studies, Page 66

- Chicano Studies Degree (sac.chst.aa)

Communication Studies, Page 66

- Option 1: Communication Studies Degree (sac.cmst.aa)
- Option 2: Associate in Arts in Communication Studies for Transfer (sac.cmst.aat)

**Communications & Media Studies, Page 67**

- Option 1 (A): Degree Program A-Communications & Media Studies Degree (sac.cmsda.aa)
- Option 1 (B): Degree Program B-Broadcast Communications & Media Studies Emphasis Degree (sac.cmsdb.aa)
- Option 2: Associate in Arts in Journalism for Transfer (sac.cmsd.aat)
- Communications & Media Studies Certificate (Transcribed) (sac.cmsd.ca)

Community Social Services, Page 69

- Community Social Services Degree (sac.css.aa)

Computer Information Systems, Page 69

- Computer Information Systems Degree (sac.cis.as)
- Computer Information Systems Certificate (Transcribed) (sac.cis.ca)
- Database Certificate (Untranscribed) (sac.cisdb.cert)
- Enterprise Systems Certificate (Untranscribed) (sac.cmpres.cert)
- Help Desk Certificate (Untranscribed) (sac.cishd.cert)
- Networking Certificate (Untranscribed) (sac.cisnw.cert)
- PC Maintenance and Troubleshooting Certificate (Untranscribed) (sac.cmpm.cert)
- UNIX Certificate (Untranscribed) (sac.cisux.cert)
- Web Programming Certificate (Untranscribed) (sac.ciswp.cert)

Computer Science, Page 72

- Option 1: Computer Science Degree (sac.cmpr.as)
- Option 2: Associate in Science in Computer Science for Transfer (sac.cmpr.ast)
- Computer Science Certificate (Transcribed) (sac.cmpr.ca)
- Programming Certificate (Untranscribed) (sac.cmpr.cert)

Criminal Justice, Page 73

- Option 1: Criminal Justice Degree (sac.cj.aa)
- Option 2: Associate in Science in Administration of Justice for Transfer (sac.cj.ast)
- Corrections Officer Program Certificate (Untranscribed) (sac.cjco.cert)
- Law Enforcement Option Certificate (Transcribed) (sac.cjle.ca)

Dance, Page 74

- Dance Program A–Dance Degree (sac.dnce.aa)
- Dance Certificate (Transcribed) (sac.dnce.ca)

Diesel Technology, Page 75

- Diesel and Heavy Equipment Technology Degree (sac.dsl.as)
- Diesel and Heavy Equipment Technology Certificate (Transcribed) (sac.dsl.ca)
- Mid-Range Engine Service Option Degree (sac.dslmr.as)
- Mid-Range Engine Service Option Certificate (Transcribed) (sac.dslmr.ca)
- Transport Refrigeration/Temperature Control Option Certificate (Untranscribed) (sac.dsltr.cert)

Earth Science, Page 76

- Earth Science Degree (sac.es.aa)

Economics, Page 76

- Economics Degree (sac.econ.aa)

Education, Page 77

- Option 1: Elementary Education Degree (Pre-Professional) (sac.educe.aa)
- Option 2: Associate in Arts in Elementary Teacher Education for Transfer (sac.eted.aat)
- After School Program Assistant Certificate (Untranscribed) (sac.educa.cert)
- After School Program Associate Teacher Certificate (Untranscribed) (sac.educt.cert)
- Education-Special Education Paraprofessional/Instructional Assistant Certificate (Transcribed) (sac.hudse.ca)

Engineering, Page 79

- Engineering Degree (sac.engr.as)
- Engineering Civil Technology Degree (sac.enrct.as) and Certificate (Transcribed) (sac.enrct.ca)
- Engineering Computer Aided Drafting and Design Degree (sac.enrca.as)
- Engineering Computer Aided Drafting and Design Certificate (Transcribed) (sac.enrca.ca)
- Engineering Drafting and Design Option I–Engineering Drafting and Design Degree (sac.enrdd.as)
- Engineering Drafting and Design Option I–Engineering Drafting and Design Certificate (Transcribed) (sac.enrdd.ca)
- Engineering Drafting and Design Degree Option II–Architectural/Civil Engineering/Construction Drafting and Design Degree (sac.enrce.as)
- Engineering Drafting and Design Certificate: Option II–Architectural/Civil Engineering/Construction Drafting and Design (Transcribed) (sac.enrce.ca)
- Mechanical 3D Solid Modeling CAD Certificate (Untranscribed) (sac.engr3d.cert)
- Engineering Industrial Technology Degree (sac.enrit.as)
- Engineering Industrial Technology Certificate (Transcribed) (sac.enrit.ca)
- Energy Analysis Degree (sac.enea.as)
- Energy Analysis Certificate (Untranscribed) (sac.enea.cert)
- Sustainable Facilities Management Certificate (Untranscribed) (sac.sufac.cert)

English, Page 83

- Option 1: English Degree (sac.engl.aa)
- Option 2: Associate in Arts in English for Transfer (sac.engl.aat)

Entrepreneurship, Page 84

- Entrepreneurship and Innovation Degree (sac.entei.aa)
- Entrepreneurship and Innovation Certificate (Transcribed) (sac.entei.ca)
- Freelancer Certificate (Untranscribed) (sac.frlan.cert)

Ethnic Studies, Page 85

- Ethnic Studies Degree (sac.ethn.aa)

**Fashion Design, Page 85**

- Fashion Design Degree (sac.fdc.aa)
- Fashion Design Certificate (Transcribed) (sac.fdc.ca)
- Fashion Merchandising Degree (sac.fdm.aa)
- Fashion Merchandising Certificate (Transcribed) (sac.fdm.ca)
- Apparel Product Development and Technical Design Degree (sac.fdcap.aa)
- Apparel Product Development and Technical Design Certificate (Transcribed) (sac.fdcap.ca)
- Dressmaking and Alterations Option Certificate (Transcribed) (sac.fdcda.ca)

Fire Technology, Page 88

- Administrative Fire Services Chief Officer Degree (sac.ftco.as)
- Administrative Fire Services Chief Officer Certificate (Transcribed) (sac.ftco.ca)
- Fire Administration Option Degree (sac.ftfa.as)
- Fire Administration Option Certificate (Transcribed) (sac.ftfa.ca)
- Fire Prevention Officer Degree (sac.ftpo.as)
- Fire Prevention Officer Certificate (Untranscribed) (sac.ftpo.cert)
- Public Fire Service Option Degree (sac.ftpfs.as)
- Public Fire Service Option Certificate (Transcribed) (sac.ftpfs.ca)

Geography, Page 90

- Option 1: Geography Degree (sac.geog.aa)
- Option 2: Associate in Arts in Geography for Transfer (sac.geog.aat)

Geology, Page 91

- Option 1: Geology Degree (sac.geol.as)
- Option 2: Associate in Science in Geology for Transfer (sac.geol.ast)

History, Page 92

- Option 1: History Degree (sac.hist.aa)
- Option 2: Associate in Arts in History for Transfer (sac.hist.aat)

Human Development, Page 93

- Option 1: Early Childhood Options Degree and Certificate
 - Infant-Toddler Option Degree (sac.hudit.aa) and Certificate (Transcribed) (sac.hudit.ca)
 - Preschool Child Option Degree (sac.hudpc.aa) and Certificate (Transcribed) (sac.hudpc.ca)
- Option 2: Associate in Science in Early Childhood Education for Transfer (sac.ece.ast)
- Bilingual (English/Spanish) Preschool Associate Teacher Certificate (Transcribed) (sac.hudbp.ca)
- School Age Options Degree (sac.hudsa.aa)
- School Age Option Certificate (Transcribed) (sac.hudsa.ca)

International Business, Page 95

- International Business Degree (sac.ib.aa)
- International Business Certificate (Transcribed) (sac.ib.ca)
- Global Trade Skills Certificate (Untranscribed) (sac.gltra.cert)

Intersegmental General Education Transfer Curriculum (IGETC), Page 96**Kinesiology, Page 96**

- Option 1: Kinesiology Degree (sac.kin.aa)
- Option 2: Associate in Arts in Kinesiology for Transfer (sac.kin.aat)
- Kinesiology Sports Medicine Certificate (Untranscribed) (sac.knm.cert)

Liberal Arts, Page 97

- American Studies Area of Emphasis Degree (sac.laas.aa)
- Arts, Humanities and Communications Area of Emphasis Degree (sac.laahc.aa)
- Business and Technology Area of Emphasis Degree (sac.labt.aa)
- Kinesiology and Wellness Area of Emphasis Degree (sac.lakw.aa)
- Mathematics and Science Area of Emphasis Degree (sac.lams.aa)
- Social and Behavioral Sciences Area of Emphasis Degree (sac.lasbs.aa)

Library Technology, Page 99

- Library Technology Degree (sac.libra.aa)
- Library Technology Certificate (Transcribed) (sac.libra.ca)

Management, Page 100

- Management Degree (sac.mgt.aa)
- Management Certificate (Transcribed) (sac.mgt.ca)
- Retail Management Degree (sac.mgtre.aa)
- Retail Management Certificate (Transcribed) (sac.mgtrt.ca)
- Human Resource Management Certificate (Untranscribed) (sac.mgthr.cert)
- Small Business Certificate (Untranscribed) (sac.mgtsb.cert)
- Supervision Certificate (Untranscribed) (sac.mgtsv.cert)

Manufacturing Technology, Page 102

- CNC Lathe Set Up and Operation Option Degree (sac.mngla.as)
- CNC Lathe Set Up and Operation Option Certificate (Transcribed) (sac.mngla.ca)
- CNC Machine Set Up and Operation Option Degree (sac.mngma.as)
- CNC Machine Set Up and Operation Option Certificate (Transcribed) (sac.mngma.ca)
- CNC Milling Machine Set Up and Operation Option Degree (sac.mngmi.as)
- CNC Milling Machine Set Up and Operation Option Certificate (Transcribed) (sac.mngmi.ca)
- CNC Programmer A-Mastercam Option Degree (sac.mngpa.as)
- CNC Programmer A-Mastercam Option Certificate (Transcribed) (sac.mngpa.ca)
- Conventional Machining Option Degree (sac.mngcm.as)
- Conventional Machining Option Certificate (Transcribed) (sac.mngcm.ca)
- Solidworks 3D Solid Modeling Certificate (Untranscribed) (sac.mng3d.cert)

Marketing, Page 106

- Contemporary Marketing Degree (sac.mktg.aa)
- Contemporary Marketing Certificate (Untranscribed) (sac.mktg.cert)

**Mathematics, Page 107**

- Option 1: Mathematics Degree (sac.math.as)
- Option 2: Associate in Science in Mathematics for Transfer (sac.math.ast)

Medical Assistant, Page 107

- Medical Assistant–Administrative/Clinical Degree (sac.ma.as)
- Medical Assistant–Administrative/Clinical Certificate (Transcribed) (sac.ma.ca)

Modern Languages, Page 108

- Option 1: Modern Languages Degree (sac.ml.aa)
- Option 2: Associate in Arts in Spanish for Transfer (sac.ml.aat)

Music, Page 110

- Option 1: Music Degree (sac.mus.aa)
- Option 2: Associate in Arts in Music for Transfer (sac.mus.aat)
- Digital Music Production Certificate (Untranscribed) (sac.musdm.cert)

Nursing, Page 111

- Nursing Degree Pre-Nursing for the Bachelor's Degree in Nursing (sac.nrspr.as)
- Nursing for the R.N. Degree (sac.nrsrn.as)
- Nursing-Registered Nursing Degree (sac.nrsrg.as)

Nutrition and Dietetics, Page 114

- Nutrition and Dietetics Degree (sac.nut.aa)
- Culinary Arts Option Certificate (Transcribed) (sac.culn.ca)
- Hospitality Option Certificate (Transcribed) (sac.nutho.ca)

Occupational Therapy Assistant, Page 114

- Occupational Therapy Assistant Degree (sac.ota.as)

Paralegal, Page 115

- Paralegal Degree (sac.para.aa)
- Paralegal Certificate (Transcribed) (sac.para.ca)

Pharmacy Technology, Page 117

- Pharmacy Technology Degree (sac.phar.as)
- Pharmacy Technology Advanced Certificate (Transcribed) (sac.phara.ca)
- Pharmacy Technology Basic Certificate (Untranscribed) (sac.pharb.cert)

Philosophy, Page 119

- Philosophy Degree (sac.phil.aa)

Photography, Page 120

- Photography Degree (sac.phot.aa)
- Commercial Photography Certificate (Transcribed) (sac.phot.ca)

Physics, Page 120

- Physics Degree (sac.phys.as)

Political Science, Page 120

- Option 1: Political Science Degree (sac.polt.aa)
- Option 2: Associate in Arts in Political Science for Transfer (sac.polt.aat)

Psychology, Page 121

- Option 1: Psychology Degree (sac.psyc.aa)
- Option 2: Associate in Arts in Psychology for Transfer (sac.psyc.aat)

Science, Page 122

- Science Degree (sac.sci.as)

Social Science, Page 123

- Social Science Degree (sac.socs.aa)

Sociology, Page 124

- Option 1: Sociology Degree (sac.soc.aa)
- Option 2: Associate in Arts in Sociology for Transfer (sac.soc.aat)

Speech-Language Pathology Assistant, Page 125

- Speech-Language Pathology Assistant Degree (sac.slpa.aa)

Television/Video Communications, Page 126

- Television/Video Communications Degree (sac.tv.aa)
- Television/Video Communications A–Television Production Certificate (Transcribed) (sac.tva.ca)
- Television/Video Communications B–Broadcast Journalism Certificate (Transcribed) (sac.tvb.ca)
- Television/Video Communications C–Television Scriptwriter Certificate (Transcribed) (sac.tvc.ca)
- Television/Video Communications D–Computer Graphics and Animation for Video Certificate (Transcribed) (sac.tvd.ca)
- Television/Video Communications–Media Studies Certificate (Untranscribed) (sac.tvms.cert)

Theatre Arts, Page 128

- Option 1 (A): Performance Emphasis Degree (sac.taper.aa)
- Option 1 (B): Technical Theatre Emphasis Degree (sac.tatec.aa)
- Option 2: Associate in Arts in Theatre Arts for Transfer (sac.taper.aat)
- Entertainment Lighting Technology Certificate (Untranscribed) (sac.taelt.cert)

Welding Technology, Page 129

- Welding Technology Degree (sac.weld.as)
- Welding Technology Certificate (Transcribed) (sac.weld.ca)
- Advanced Arc-Semi-Automatic Welding (Transcribed) (sac.advweld.ca)

Women's Studies, Page 130

- Women's Studies Degree (sac.wmns.aa)



THE ASSOCIATE DEGREE

GENERAL EDUCATION PHILOSOPHY

General Education requirements at Santa Ana College reflect the conviction that those who receive degrees must possess in common certain basic principles, concepts, and methodologies, both unique to and shared by various disciplines. Recognizing the need for students to embrace and adapt to increasingly and rapidly changing local, national and global conditions, the college seeks to ensure that students develop the necessary skills, knowledge, and curiosity to better themselves and their communities.

The subject matter of General Education courses is designed to be general, broad and introductory rather than specialized, narrow, or advanced. General Education courses form a pattern of learning experiences designed to provide educational opportunities that lead to the following learning outcomes for students:

1. The ability to comprehend and communicate ideas logically, creatively, correctly, and effectively in speaking and writing.
2. Skills in creative and critical thinking, including analysis, synthesis, evaluation, problem-solving, decision-making, and quantitative reasoning.
3. The skills necessary to identify informational needs; to seek, to access, to evaluate and to apply information effectively, using print materials and technology creatively, effectively and responsibly.
4. An understanding of the complexities presented by the cultural, social, and environmental diversity of the world.
5. Responsibility for ethical and active participation in a diverse society.
6. The basic skills necessary for lifelong learning, fitness, creative expression, aesthetic appreciation, personal growth, interpersonal skills, and development of intellectual curiosity.
7. Acquisition of the knowledge and skills necessary in chosen disciplines and careers.

NOTE: See Plan A, page 37 for specific course requirements.

GENERAL EDUCATION CATEGORIES

A. Natural Sciences

Courses in the natural sciences examine the physical universe, its life forms, and its natural phenomena. They assist in developing an appreciation and understanding of the scientific method and encourage an understanding of the relationships between science and other human activities. This category includes introductory or integrative courses in astronomy, biology, chemistry, general physical science, geology, physics, physical geography, physical anthropology, and other scientific disciplines.

B. Social and Behavioral Sciences

Courses in the social and behavioral sciences focus on people as members of society. They assist in developing an awareness of the methods of inquiry used by the social and behavioral sciences. Critical thinking is stimulated about the ways people act and have acted in response to their societies, and appreciation is developed of how societies and social groups operate. This category includes introductory or integrative survey courses in cultural anthropology, economics, history, political science, psychology, sociology, cultural geography, and related disciplines.

C. Humanities

Courses in humanities study the cultural activities and artistic expressions of human beings. They assist in developing an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them in artistic and cultural creation, and in developing aesthetic understanding and an ability to make value judgments. This category includes introductory or integrative courses in the arts, foreign languages, literature, philosophy and religion.

D. Cultural Breadth

Courses meeting the cultural breadth requirement represent both global and national perspectives and recognize the value of systemic historical and cross-cultural examinations of race, ethnicity, gender, and global issues.

1. **Ethnic Studies/Women's Studies.** Courses meeting the Ethnic Studies/Women's Studies requirement focus on the cultural perspectives of the African American, the Asian American, the Chicano/Latino, and the Native American and women in the United States. They assist students to deal constructively with issues of difficult differences and to develop respect for and become aware of the views, interactions, and contributions of these ethnic groups and women to U.S. society and culture. This category is interdisciplinary and includes introductory courses that incorporate the voices of these historically excluded groups.
2. **International Perspective.** Courses in International Perspective include an emphasis on global perspectives in a cultural context. All courses need to address not just specific aspects of culture but also a component addressing the basic concepts of culture including how culture influences environment, behavior, structure, and function of society. These courses also include a multi-country perspective.
- E. **Language and Rationality** Courses in language and rationality develop the principles and applications of language toward logical thought, clear and precise expression, and critical evaluation of communication in whatever symbol system the student uses.
- F. **Lifelong Understanding and Self-Development** The courses in this category are designed to equip human beings for lifelong understanding and development of themselves as integrated physiological and psychological entities. In a social context, students will benefit from study about themselves and how they function at different stages of life. Instruction is intended to include consideration of such matters as human behavior, sexuality, nutrition, health, stress, key relationships of humankind to the social and physical environment, and implications of death and dying. Physical activity courses could be included, provided that they include some components of the above listed topics.



ASSOCIATE DEGREE REQUIREMENTS: 2014-2015

I. Unit and Residency Requirements

60 UNITS, with at least a 2.0 grade point average. At least 12 of the units must be earned at the college. At least 6 of those units must be in courses required for the major unless students are earning an A.A.-T or A.S.-T degree. Units earned at a regionally accredited college or university on a pass/no pass basis will be counted toward the degree requirements of the college, to a maximum of 15 units.

II. General Education Requirements

24 semester units of general education which include one course or more as indicated in group requirements A, B, C, D, E, and F. **NOTE:** See Plan A, page 37 for specific course requirements.

Non degree applicable courses may *not* be used for graduation requirements.

Courses from the major may be used to satisfy areas A-F.

Note: The requirements in parts II, IV, and V also may be met by CSU general education certification, IGETC certification, or by submitting a transcript showing completion of a bachelor's degree from a regionally accredited institution. The requirements in parts II, IV, and V may also be met by submitting a transcript showing completion of an Associate of Arts or Associate of Science degree from a regionally accredited California institution within a ten-year period of finishing major requirements (III) at the college.

III. Major Requirements

Each degree and certificate program specifies courses required for the major (a minimum of 18 units). Students must complete these courses with a grade of C or better. See Instructional Programs Section. Courses in the student's major may not be taken under the Pass/No Pass policy except as designated in certain programs or disciplines (see page 24) or as designated through credit by examination or assessment.

IV. Required Proficiencies

Note: The proficiencies and requirements listed in IV. Required Proficiencies and V. Oral Communication Requirement may also be used to meet General Education Requirements in groups A through F where appropriate. **Courses taken to meet proficiencies must be completed with a grade of C or better.**

A. Reading

1. Satisfactory score on the SAC/SCC Reading Placement Test at the time of initial placement testing, OR
2. Satisfactory score on a Reading Department Test, OR
3. Successful completion of any Reading course at the 100 level or above, OR
4. A "C" grade, or better in 9 units of general education courses for the Associate Degree in Areas A (Natural Sciences) - 3 units; B (Social and Behavioral Sciences) - 3 units each in B1 and B2.

B. Mathematics

1. Completion of Mathematics 080/081 or any other 3 unit mathematics course numbered above the level of 080/081, OR
2. Score on the SAC/SCC mathematics placement test indicating placement in a mathematics course numbered above the level of 080/081.

V. Oral Communication Requirement

Completion of 3 units with a grade of "C" or better from the following: Communication Studies 101 or 101H (Interpersonal Communication); Communication Studies 102 (Public Speaking); Communication Studies 140 (Argumentation and Debate); Communication Studies 145 (Group Dynamics); Communication Studies 152 (Oral Interpretation).

Petition for Graduation and Catalog Rights:

Petitions for graduation should be filed in the Office of Admissions and Records one semester before the student expects to graduate. Students who maintain continuous enrollment in at least one regular semester or session of a catalog year (fall, intersession, spring, or summer) at Santa Ana College or Santiago Canyon College may elect to meet the associate degree or certificate requirements in the SAC Catalog in effect at the time of first enrollment, or may choose the catalog requirements from any one year of subsequent continuous enrollment. **A student who has an interruption of attendance must use the catalog at the time of readmission or one of subsequent continuous enrollment.** Commencement exercises are held once a year at the end of the spring semester for those students who complete the requirements for graduation during the year or the summer session.

NOTE: Official Transcripts from all colleges attended must be on file in the Admissions and Records office.



GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE

PLAN A: 2014-2015

NOTE: This plan does not apply to Associate Degrees for Transfer (A.A.-T and A.S.-T).

NOTE: See page 36, for specific requirements for the following:

- IV. A. Reading Proficiency
- B. Mathematics Proficiency
- V. Oral Communication Requirement

Courses taken to meet these proficiencies/requirement must be completed with a grade of "C" or better.

NOTE: A single course may be used to meet only one category requirement (A-F) in Section II. However, a course may be used to meet both a required proficiency (IV) or requirement (V), as well as one of the categories of General Education Courses on Plan A (II). Courses which meet the requirements for Part II of Plan A at Santiago Canyon College will automatically meet the identical requirements for Part II of Plan A at Santa Ana College.

II. Required General Education Courses

A. Natural Sciences (minimum 3 units)

Anthropology 101, 101L
Astronomy 109, 110 or 110H, 140
Biology 109 or 109H/109L, 111, 115, 149, 177, 200, 211, 239, 259
Chemistry 109, 119, 209, 210, 219 or 219H
Earth Science 110 or 110H, 115, 150 or 150H
Environmental Studies 140, 200, 259
Geography 101, 101L
Geology 101, 101L, 140, 150 or 150H, 201
Physical Science 117, 118
Physics 109, 210, 217, 279
Science 200

B. Social and Behavioral Sciences (minimum 6 units)

1. **American Institutions** (minimum 3 units)
History 118, 120 or 120H, 121 or 121H, 122
Political Science 101 or 101H
2. **Social Science Elective** (minimum 3 units)
Anthropology 100 or 100H
Criminal Justice 101
Economics 120, 121
Geography 100 or 100H, 102 or 102H
History 101 or 101H, 102 or 102H
Human Development 107, 110
Political Science 101 or 101H
Psychology 100 or 100H
Sociology 100 or 100H

C. Humanities (minimum 3 units)

Anthropology 104 or 104H
Art 100 or 100H, 101, 102, 105, 110
Communications and Media Studies 103, 111
Dance 100 or 100H, 105
English 104 or 104H
Foreign Language:
Chinese 101, 102
French 101, 102, 201 or 201H, 202 or 202H
Italian 120, 121
Japanese 101, 102
Spanish 101 or 101H, 102 or 102H, 195 A, 195B, 201 or 201H, 202 or 202H
Vietnamese 101, 102
Interdisciplinary Studies 121, 200
Kinesiology, Professional 170
Literature:
Communications & Media Studies 110
English 102 or 102H, 231, 232, 233ABC, 241, 242, 270, 271, 272
Music 101 or 101H, 102 or 102H, 104, 110, 211
Philosophy 106 or 106H, 108, 112, 118
Sign Language 110, 111, 112, 116
Television/Video Communications 101, 103, 104, 105 or 105H
Theatre Arts 100, 105

D. Cultural Breadth

(Three units required from D1 or D2)

D1. Ethnic Studies/Women's Studies

Anthropology 104 or 104H, 125
Art 103, 104, 106
Asian American Studies 101
Black Studies 101
Chicano Studies 101
Communication Studies 103 or 103H, 206 or 206H
English 104 or 104H
Ethnic Studies 101 or 101H, 102 or 102H
History 123, 124 or 124H, 125, 127, 146, 150, 151, 153, 163, 181
Human Development 221
Kinesiology, Health Education 102
English 245, 246, 278
Music 103
Nutrition and Food 118
Political Science 235
Psychology 170
Sign Language 116
Women's Studies 101, 102

D2. International Perspective

Anthropology 100 or 100H
Business 106 or 106H
Criminal Justice 209
Dance 105
English 271, 272
Geography 100 or 100H, 102
Interdisciplinary Studies 117H
Kinesiology, Professional 150
Music 102 or 102H
Philosophy 112
Theatre Arts 105

E. Language and Rationality (minimum 6 units)

1. English Composition (minimum 3 units)

Courses fulfilling the written composition requirement include both expository and argumentative writing. The English composition requirement may be met by completing English 101 or 101H with a grade of "C" or better.

2. Communication and Analytical Thinking

(minimum 3 units)

Includes mathematics, logic, statistics, computer languages and programming and related disciplines.

Communication Studies 102, 140, 145
Computer Science 100, 105, 111
Counseling 144
English 102 or 102H, 103 or 103H
Mathematics 080/081, 087, 105, 140, 145, 150, 160, 167, 170, 180 or 180H, 185, 204, 219 or 219H, 280, 287
Philosophy 110 or 110H, 111, 144
Psychology 210
Reading 102, 150
Social Science 219 or 219H

F. Lifelong Understanding and Self-Development

(minimum 3 units)

NOTE: Take one course from each group. No more than one unit may be counted from F2.

Three units for Health Education and one unit for Kinesiology may be granted on the basis of military service. See page 18 for additional information.

1. Completion of one of the following:

Business 130
Counseling 100, 116, 120, 124, 125, 128
Fashion Design Merchandising 103
Human Development 102, 107
Interdisciplinary Studies 111, 155
Kinesiology, Health Education 101, 102, 104
Kinesiology, Professional 125, 140, 160
Library and Information Studies 100
Mathematics 030
Nutrition and Food 115 or 115H
Philosophy 111
Psychology 140, 230
Sociology 112
Study Skills 109

2. Completion of one of the following:

Dance 102, 201A, 201B, 206A, 206B, 219A, 219B
Kinesiology, Activities 107A, 123, 140A, 150A, 155A, 160A, 169A, 170A, 200A, 200B, 200C, 211A, 211B, 220A, 220B, 220C, 226A, 260A, 260B, 265A, 265B, 270A, 290A, 290B
Kinesiology, Adapted Activities 201A, 202A, 202B, 205A, 208A, 208B, 211A, 211B
Kinesiology, Aerobic Fitness 140, 143A, 144A, 146A, 146B, 150A, 156, 156A, 156B, 157A
Kinesiology, Aquatics 201A, 201B, 204
Kinesiology, Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, 110C, 112A, 112B, 112C, 115A, 115B, 115C, 126A, 126B, 126C, 127A, 127B, 127C, 147A, 147B
Kinesiology, Intercollegiate Athletics 103, 125, 128, 133, 134, 171, 201, 202, 204, 206, 207, 209, 210, 211, 212, 213, 214, 216, 217, 218, 219, 220, 221, 223, 227, 231, 232, 235, 240, 261, 262, 270, 271, 281, 291,
Kinesiology, Professional 155, 165, 175, 200

This requirement (F) is met for Fire Technology (as long as Fire Technology 121 and 121L are taken as part of the program), Nursing, and Occupational Therapy Assistant by completion of the major.



CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION BREADTH (CSU GE)

PLAN B: 2014-2015

NOTE: These requirements apply to all students. Students planning to graduate from one of the 23 campuses of the California State University must complete 48 semester units in general education breadth courses. A student may complete 39 units of general education at either college in the Rancho Santiago Community College District prior to transfer. Nine semester units of general education coursework must be completed at the upper division level after transfer.

CERTIFICATION OF GENERAL EDUCATION

- Santa Ana College is authorized to certify a maximum of 39 general education units.
- No more than 30 semester units may be certified for areas B through D combined, which are described in the next section.
- Pass/No Pass grades are accepted for certification in all areas; however, they are not recommended for transfer credit in basic skill areas. (A. Communication in the English Language and Critical Thinking, A1, A2, and A3; and B. The Physical Universe and Its Life Forms, B4.) In addition, letter grades may be recommended or required for specific courses in a given major. Each CSU campus may also limit the total number of units graded credit.
- A single course may not meet more than one general education requirement.
- Requests for certification should be made to the Office of Admissions and Records during the semester prior to the last term of attendance. Please consult the class schedule or the Counseling Department for deadline information.
- Certification of coursework from other colleges will be granted to students whose last community college of attendance prior to transfer is Santa Ana.
- Courses taken at other California Community Colleges will be applied to the subject areas in which they were listed by the institution where the course was completed.
- Courses taken at other regionally accredited private/out of state institutions (which do not maintain a CSU certification list) will be placed in the subject areas for which Santa Ana College has equivalent courses. In some cases non-equivalent courses may also be considered. Consult a counselor for additional information. Courses completed at foreign institutions are not acceptable for certification.

IMPORTANT NOTE: The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet general education-breadth requirements will be honored **if they are approved for the academic year in which they are taken. Courses on this list are approved beginning Fall 2014 and are valid through Summer 2015.**

TRANSFER CREDIT

- Students may transfer up to 70 semester units to the CSU system. Sixty transferable units are needed for junior standing.
 - All courses used for CSU transfer credit must be numbered 100 or above in the Santa Ana College catalog.
- A. English Language Communication and Critical Thinking** (minimum 9 semester/12 quarter units)
The 9 units selected from this area must include at least one course each from A1, A2, and A3. Each course must be completed with a grade of "C" or better. (C minus is not acceptable.)
- A1: Oral Communication**
Communication Studies 101 or 101H, 102, 103 or 103H, 140, 145
- A2: Written Communication**
English 101 or 101H
- A3: Critical Thinking**
Communication Studies 140
Counseling 144
English 102 or 102H (102 and 102H not accepted in A3 if completed prior to Fall 2011), 103 or 103H
Philosophy 110 or 110H, 111, 144
Reading 150

B. Scientific Inquiry and Quantitative Reasoning

(minimum 9 semester/12 quarter units)
The 9 units selected from this area must include at least one course each from B1, B2, and B4. The 9 units must also include a corresponding lab component. (Lab classes are in **bold**.) Courses in B4 must be completed with a grade of "C" or better. (C minus is not acceptable.)

B1: Physical Science

Astronomy **109, 110 or 110H**
Chemistry **109, 115, 119, 209, 210, 219 or 219H**
Earth Science 110 or 110H, **115, 150 or 150H**
Environmental Studies 140
Geography 101
Geology 101, 140, 150 or 150H, **201**
Physical Science **115, 117**
Physics **109, 210, 211, 217, 279**

B2: Life Science

Anthropology 101
Biology 109 or 109H, **111, 115, 139, 149, 177, 211, 212, 214, 229, 239, 259**
Environmental Studies **259**

B3: Laboratory Activity

Anthropology **101L**
Astronomy **140**
Biology **109L, 111, 115, 139, 149, 211, 212, 214, 229, 239, 259**

Chemistry **109, 115, 119, 209, 210, 219 or 219H**

Earth Science 115

Environmental Studies **259**

Geography 101L

Geology **101L, 201**

Physics **109, 210, 211, 217, 279**

Physical Science **115, 118**

B4: Mathematics/Quantitative Reasoning

Courses must be completed with a grade of "C" or better.
Mathematics 105, 140, 145, 150, 160, 167, 170, 180 or 180H, 204, 219 or 219H, 280

Psychology 210

Social Science 219 or 219H

C. Arts and Humanities

(minimum 9 semester/12 quarter units)
This area must include one course from C1 and one course from C2.

C1: Arts: Art, Cinema, Dance, Music, Theatre

Art 100 or 100H, 101, 102, 103, 104, 105, 106, 108
Communications & Media Studies 103
Dance 100 or 100H, 102, 105
English 233A, 233B, 233C
Interdisciplinary Studies 121
Music 101 or 101H, 102 or 102H, 103, 104, 111, 211
Photography 150
Television/Video Communications 103, 104
Theatre Arts 100, 105

C2: Humanities: Literature, Philosophy, Languages Other Than English

Chinese 101, 102
English 102 or 102H, 206, 220, 231, 232, 233A, 233B, 233C, 233D, 241, 242, 243, 245, 246, 270, 271, 272, 278
French 101, 102, 201 or 201H, 202 or 202H
History 101 or 101H, 102 or 102H, 150, 151, 153, 163
Interdisciplinary Studies 200
Italian 120, 121
Japanese 101, 102
Kinesiology, Professional 170
Philosophy 106 or 106H, 108, 112, 118
Sign Language 110, 111, 112, 116
Spanish 101 or 101H, 102 or 102H, 195A, 195B, 201 or 201H, 202 or 202H
Vietnamese 101, 102

D. Social Sciences

(minimum 9 semester/12 quarter units)
The 9 units selected from this area must include courses from at least 2 different subareas.

D1: Anthropology and Archeology

Anthropology 100 or 100H, 103, 104 or 104H, 105, 125
English 104 or 104H
History 105, 125

D2: Economics

Economics 120, 121

D3: Ethnic Studies

Anthropology 125
Asian American Studies 101

Black Studies 101
Chicano Studies 101
Communication Studies 206 or 206H
English 245, 278
Ethnic Studies 101 or 101H, 102 or 102H
History 123, 124 or 124H, 125, 146
Political Science 235
Psychology 170

D4: Gender Studies

Communication Studies 206 or 206H
English 245, 278
History 127, 181
Women's Studies 101, 102

D5: Geography

Geography 100 or 100H, 102

D6: History

Anthropology 105, 125
History 101 or 101H, 102 or 102H, 105, **118, 120 or 120H, 121 or 121H, 123, 124 or 124H, 125, 127, 133, 146, 150, 151, 153, 163**

D7: Interdisciplinary Social or Behavioral Science

Biology 200

Communication Studies 103 or 103H

Communications & Media Studies 111

Computer Science 100

Counseling 150

Environmental Studies 200

Human Development 107, 110

Interdisciplinary Studies 117H, 155

Kinesiology, Professional 150

Science 200

Television/Video Communications 105 or 105H

D8: Political Science, Government, and

Legal Institutions

Political Science **101 or 101H, 200 or 200H, 201, 220, 226, 235**

D9: Psychology

Human Development 107

Psychology 100 or 100H, 140, 157, 170, 200, 219, 230, 240, 250

Sociology 240

D10: Sociology and Criminology

Criminal Justice 101

Sociology 100 or 100H, 112, 140 or 140H

NOTE: The CSU graduation requirement in UNITED STATES HISTORY, CONSTITUTION AND AMERICAN IDEALS may be met by completing Political Science 101 or 101H and one U.S. History course from the following: History 118, 120 or 120H, 121 or 121H, 123, 124 or 124H, 127, 146. These courses (in **bold** in D6 above) may also be used to meet 6 of the 9 Area D unit requirements.

E. Lifelong Learning and Self-Development

(minimum 3 semester/4 quarter units)
Three units should be selected from below with no more than one unit from E2. Three units of credit are allowed in E for former military personnel with a DD-214.

E1:

Communication Studies 104
Counseling 100, 116, 120, 124, 125, 128
Human Development 107, 229
Interdisciplinary Studies 155
Kinesiology, Health Education 101, 102, 104
Kinesiology, Professional 125
Nutrition and Food 115 or 115H
Psychology 140, 157, 230
Sociology 112
Study Skills 109

E2:

Kinesiology, Activities 107A, 123, 140A, 150A, 155A, 160A, 169A, 170A, 200A, 200B, 200C, 211A, 211B, 220A, 220B, 220C, 226A, 260A, 260B, 265A, 265B, 270A, 290A, 290B
Kinesiology, Adapted Activities 201A, 202A, 202B, 205A, 208A, 208B, 211A, 211B
Kinesiology, Aerobic Fitness 140, 143A, 144A, 146A, 146B, 150A, 156, 156A, 156B, 157A
Kinesiology, Aquatics 201A, 201B, 204
Kinesiology, Fitness 100, 101A, 101B, 101C, 102, 110A, 110B, 110C, 112A, 112B, 112C, 115A, 115B, 115C, 126A, 126B, 126C, 127A, 127B, 127C, 147A, 147B,
Kinesiology, Intercollegiate Athletics 125, 128, 133, 134, 171, 201, 202, 204, 206, 207, 209, 210, 211, 212, 213, 214, 216, 217, 218, 219, 220, 221, 223, 227, 235, 240, 261, 262, 271, 281, 291



INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)

PLAN C: 2014-2015

Completion of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from Santa Ana College to a campus in either the CALIFORNIA STATE UNIVERSITY or the UNIVERSITY OF CALIFORNIA system without the need, after transfer, to take additional lower-division, general education courses to satisfy campus general education requirements.

- It is generally recommended that students complete all the listed requirements for IGETC prior to transferring. Students may obtain partial certification, however, by completing all but 1-2 courses. Consult a counselor for additional information.
- Complete all courses used for IGETC certification with a minimum grade of C (C minus is not acceptable.)** A "pass" is acceptable providing it is equivalent to a grade of C or higher. The catalog must reflect this policy.
- Request certification from the last California community college attended prior to transfer to CSU or UC. Requests should be made to the Office of Admissions and Records during the semester prior to the last term of attendance. Please consult the class schedule or a counselor for deadline information.
- Prior to requesting certification, have all official transcripts on file from every high school and college attended.
- Courses taken at other California community colleges will be applied to the subject areas in which they are listed by the institution where the work was completed.
- Courses taken at other regionally accredited private/out of state institutions (which do not maintain an IGETC certification list) will be placed in the subject areas for which Santa Ana College has equivalent courses. Equivalency is determined by Santa Ana College faculty. Petitions are available from the Counseling Division and must be accompanied by the appropriate documentation. In some cases non-equivalent courses may also be considered. Consult a counselor for additional information.
- Courses completed at foreign institutions (without US regional accreditation) are not acceptable except for certification of competence in a language other than English.

IMPORTANT NOTE: The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet IGETC requirements will be honored **if they are approved for the academic year in which they are taken. Courses on this list are approved beginning Fall 2014 and are valid through Summer 2015.**

AREA 1 - ENGLISH COMMUNICATION

- C.S.U.:** 3 courses required, one from each group.
U.C.: 2 courses required, one each from Group A and B.

Group A: English Composition

1 course, minimum 3 semester/4-5 quarter units.
English 101** or 101H**

Group B: Critical Thinking-English Composition

1 course, 3 semester/4-5 quarter units.
English 102** or 102H** (102 and 102H not accepted in 1B if completed prior to Fall 2011)
English 103** or 103H**
Philosophy 110** or 110H**

Group C: Oral Communication (CSU ONLY)

1 course, 3 semester/4-5 quarter units.
Communication Studies 102, 103** or 103H**, 140, 145

AREA 2A - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

1 course, 3 semester/4-5 quarter units.
Math 105, 140**, 145, 150**, 170**, 180** or 180H**, 185, 219** or 219H**, 280; Social Science 219** or 219H**, Psychology 210

AREA 3 - ARTS AND HUMANITIES

3 courses, 9 semester/12-15 quarter units, with at least one course from Group A and one course from Group B.

Group A: Arts (minimum 1 course)

Art 100** or 100H**, 101, 102, 103, 104, 105, 106, 108
Communications & Media Studies 103
Dance 100** or 100H**, 102, 105
Interdisciplinary Studies 121
Music 101** or 101H**, 102** or 102H**, 103, 104, 111, 211
Photography 150
Television/Video Communications 103, 104
Theatre Arts 100, 105

Group B: Humanities (minimum 1 course)

Chinese 102
English 102** or 102H**, 206, 220, 231, 232, 233A or 233B or 233C, 241, 242, 243, 245, 246, 271, 272, 278
French 102, 201** or 201H**, 202** or 202H**
History 101** or 101H**, 102** or 102H**, 150, 151, 153, 163*
Interdisciplinary Studies 200
Japanese 102
Philosophy 106** or 106H**, 108, 112, 118
Sign Language 111, 112, 116
Spanish 102** or 102H**, 195A, 195B, 201** or 201H**, 202** or 202H**
Vietnamese 102

AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES

3 courses, 9 semester/12-15 quarter units from at least 2 disciplines or an interdisciplinary sequence.

Anthropology 100** or 100H**, 103, 104** or 104H**, 105, 125
Asian American Studies 101
Biology 200
Black Studies 101
Chicano Studies 101
Communication Studies 206** or 206H**
Communications & Media Studies 111
Criminal Justice 101
Economics 120, 121
English 104** or 104H**
Environmental Studies 200
Ethnic Studies 101** or 101H**, 102** or 102H**
Geography 100** or 100H**, 102**
History 101**, 101H**, 102**, 102H**, 105, 118, 120** or 120H**, 121** or 121H**, 123, 124** or 124H**, 125, 127, 133, 146, 163*, 181
Human Development 107**
Interdisciplinary Studies 117H, 155
Political Science 101** or 101H**, 200** or 200H**, 201, 220, 235
Psychology 100** or 100H**, 140, 157**, 170, 200, 219, 230, 240, 250
Science 200
Sociology 100** or 100H**, 140** or 140H**, 240
TV/Video Communications 105** or 105H**
Women's Studies 101, 102

AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES

At least 2 courses, 7-9 semester/9-12 quarter units with one Physical Science course and one Biological Science course; at least one must include a corresponding laboratory (Group C)

Group A: Physical Science (1 course)

Astronomy 109, 110** or 110H**
Chemistry 109**, 115, 119**, 209**, 210, 219** or 219H**, 229
Earth Science 110** or 110H**, 115**, 150** or 150H**
Environmental Studies 140
Geography 101**
Geology 101**, 140, 150** or 150H**, 201
Physical Science 115, 117**
Physics 109**, 210**, 211**, 217**, 227**, 237**, 279**, 289**

Group B: Biological Science (1 course)

Anthropology 101
Biology 109** or 109H**, 111, 115, 139**, 177, 211, 212, 214, 229**, 239, 249, 259
Environmental Studies 259

Group C: Laboratory Activity

Anthropology 101L
Astronomy 140
Biology 109L, 111, 115, 139, 211, 212, 214, 229, 239, 249, 259
Chemistry 109, 115, 119, 209, 210, 219 or 219H, 229
Earth Science 115
Environmental Studies 259
Geography 101L
Geology 101L, 201
Physical Science 115, 118
Physics 109, 210, 211, 217, 227, 237, 279, 289

AREA 6A - LANGUAGE OTHER THAN ENGLISH (U.C. ONLY)

Satisfactory completion of two years of high school coursework in one language other than English with grades of "C" or better***;

OR

completion of one of the following: Chinese 101, French 101, Japanese 101, Sign Language 110, Spanish 101** or 101H**, or Vietnamese 101;

OR

satisfactory completion, with "C" grades or better, of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English;

OR

satisfactory score in examinations of languages other than English as follows:

3 or higher on College Board Advanced Placement Examination, 5 or higher on International Baccalaureate Higher Level Examination; SAT II: Subject Tests (see counselor for required scores); A, B, or C on "O" Level exam; 5, 6, or 7 on "A" Level exam;

OR

satisfactory completion of an achievement test administered by a college in language other than English equivalent to two years of high school language. If an achievement test is not available, a SAC faculty member may verify competency.

AMERICAN INSTITUTIONS REQUIREMENT

(Not part of IGETC. May be completed prior to transfer.)

CSU has an American Institutions graduation requirement that is separate from IGETC. Courses used to meet the CSU requirement **can** usually also be used in Area 3 or 4. (This is at the discretion of each CSU campus.) To meet the CSU requirement, students should take Political Science 101** or 101H** **AND** one of the following courses: History 118, 120**, 120H**, 121**, 121H**, 123, 124**, 124H**, 127, 146.

UC requires the completion of a college course or courses with a grade of "C" or better **OR** a one-year course in high school in U.S. History or a half-year course in U.S. History and a half-year course in American Government with grades of "C" or better (UCLA requires grades of "B"). UCSB requires the completion of a college course. If you are using college coursework to satisfy this requirement, check the appropriate UC catalog to determine which course(s) to take.

* Courses designated with an asterisk may be counted in one area only.

** Indicates that transfer credit may be limited by either UC or CSU or both. Please see page 51 for additional information.

*** High School transcript must be on file in the admissions office. Please consult with a counselor for additional information.



ADVANCED PLACEMENT POLICIES

Per the following chart students at Santa Ana College may be awarded units of credit for Advanced Placement exams passed with a score of 3, 4, or 5. Although credit awarded through advanced placement may be used to satisfy Santa Ana College graduation requirements, it cannot be used to satisfy the twelve unit residency requirement. **Students who have earned credit from an AP exam should not take a comparable college course since credit will not be granted for both.** Students should submit official copies of Advanced Placement Examination test scores to the Admissions and Records office for evaluation. Students are strongly advised to check with a SAC counselor and/or the Admissions Office of their transfer campus to determine how the AP exam will be used to meet requirements at their transfer institution as policies may differ from SAC's.

Advanced Placement Exam	SAC Course(s)/ Units Awarded (can also be used on Plan A)	CSU-GE (Plan B) Certification Area/ Semester Units Awarded ¹	CSU Minimum Semester Units Granted ²	IGETC (Plan C) Certification Area/ Semester Units Awarded ⁵	UC Minimum Semester Units Granted ⁴
Art History	ART 101 and 102 6 units	Area C1 or C2 ⁵ 3 units	6 units	Area 3A or 3B ⁵ 3 units	5.3 units
Studio Art: Drawing	ART 130 3 units	N/A	3 units	N/A	5.3 units (5.3 units maximum combined credit for all three Studio Art exams)
Studio Art: 2-D	ART 110 3 units	N/A	3 units	N/A	5.3 units (5.3 units maximum combined credit for all three Studio Art exams)
Studio Art: 3-D	ART 111 3 units	N/A	3 units	N/A	5.3 units (5.3 units maximum combined credit for all three Studio Art exams)
Biology	BIOL 109 3 units	Area B2 and B3 4 units	6 units	Area 5B with lab 4 units	5.3 units
Calculus AB	MATH 180 4 units	Area B4 3 units	3 units (only one Calculus exam may be applied toward CSU degree)	Area 2A 3 units	2.7 units (5.3 units maximum combined credit for both Calculus exams)
Calculus BC	MATH 180 and 185 8 units	Area B4 3 units	6 units (only one Calculus exam may be applied toward CSU degree)	Area 2A 3 units	5.3 units (5.3 units maximum combined credit for both Calculus exams)
Calculus BC/AB Subscore	MATH 180 4 units	Area B4 3 units	3 units (only one Calculus exam may be applied toward CSU degree)	Area 2A 3 units	2.7 units (5.3 units maximum combined credit for both Calculus exams)
Chemistry	CHEM 219 5 units	Area B1 and B3 4 units (6 units if passed prior to F '09)	6 units	Area 5A with lab 4 units	5.3 units
Chinese Language and Culture	Plan A Area C 3 units	Area C2 3 units	6 units	Area 3B and 6A 3 units	5.3 units
Computer Science A	CMPR 121 3 units (with SAC CMPR department approval)	N/A	3 units (only one Cmpr exam may be applied toward a CSU degree)	N/A	1.3 units (2.7 units maximum combined credit for both Cmpr exams)
Computer Science AB	CMPR 121 and 131 6 units (with SAC CMPR department approval)	N/A	6 units (only one Cmpr exam may be applied toward a CSU degree)	N/A	2.7 units (2.7 units maximum combined credit for both Cmpr exams)
Economics: Macroeconomics	ECON 120 3 units	Area D2 3 units	3 units	Area 4 3 units	2.7 units
Economics: Microeconomics	ECON 121 3 units	Area D2 3 units	3 units	Area 4 3 units	2.7 units
English: Language and Composition	ENGL 101 4 units	Area A2 3 units	6 units	Area 1A 3 units	5.3 units (5.3 units maximum combined credit for both English exams)

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ADVANCED PLACEMENT POLICIES

(CONTINUED)

Advanced Placement Exam	SAC Course(s)/ Units Awarded (can also be used on Plan A)	CSU-GE (Plan B) Certification Area/ Semester Units Awarded ¹	CSU Minimum Semester Units Granted ²	IGETC (Plan C) Certification Area/ Semester Units Awarded ³	UC Minimum Semester Units Granted ⁴
English: Literature and Composition	ENGL 101 4 units	Area A2 and C2 6 units	6 units	Area 1A or 3B ⁵ 3 units	5.3 units (5.3 units maximum combined credit for both English exams)
Environmental Science	BIOL 200 or ENVR 200 3 units	Area B1 and B3 4 units (B1 and B3, or B2 and B3 if test taken prior to F '09)	4 units	Area 5A with lab 3 units	2.7 units
French Language	FREN 101 and 102 10 units	Area C2, 3 units (6 units if passed prior to F '09)	6 units	Area 3B and 6A 3 units	5.3 units
French Literature	Plan A, Area C 3 units	Area C2 3 units ⁶	6 units	Area 3B and 6A 3 units	5.3 units
German Language	Plan A, Area C 3 units	Area C2, 3 units (6 units if passed prior to F '09)	6 units	Area 3B and 6A 3 units	5.3 units
Geography: Human	GEOG 102 3 units	Area D5 3 units	3 units	Area 4 3 units	2.7 units
Government and Politics: Comparative	POLT 201 3 units	Area D8 3 units	3 units	Area 4 3 units	2.7 units
Government and Politics: United States	POLT 101 3 units	Area D8 3 units and completion of the US Const. and Govt. portion of the US Hist. Const. and Am. Ideals requirement ⁷ (US-2)	3 units	Area 4 3 units and completion of the US Const. and Govt. portion of the CSU US Hist. Const. and Am. Ideals requirement ⁷ (US-2)	2.7 units
History: European	HIST 102 3 units	Area C2 or D6 ⁵ 3 units	6 units	Area 3B or 4 ⁵ 3 units	5.3 units
History: United States	HIST 120 and 121 6 units	Area C2 or D6 ⁵ 3 units and completion of the US Hist. portion of the US Hist. Const. and Am. Ideals requirement ⁷ (US-1)	6 units	Area 3B or 4 ⁵ 3 units and completion of the US Hist. portion of the CSU US Hist. Const. and Am. Ideals requirement ⁷ (US-1)	5.3 units
History: World	HIST 101 and 102 6 units	Area C2 or D6 ⁵ 3 units	6 units	Area 3B or 4 ⁵ 3 units	5.3 units
Italian Language and Culture	Plan A, Area C 3 units	Area C2 3 units	6 units	Area 3B and 6A 3 units	5.3 units
Japanese Language and Culture	Plan A, Area C 3 units	Area C2 3 units	6 units	Area 3B and 6A 3 units	5.3 units
Latin: Literature	Plan A, Area C 3 units	Area C2 3 units ⁶	6 units	Area 3B and 6A 3 units	2.6 units
Latin: Vergil	Plan A, Area C 3 units	Area C2 3 units	3 units	Area 3B and 6A 3 units	2.6 units
Music Theory	MUS 111 and 112 8 units	Area C1 3 units ⁶	6 units	N/A	5.3 units
Physics B (available prior to Fall '15)	PHYS 279 and 289 8 units	Area B1 and B3 4 units ⁸ (6 units if passed prior to F '09)	6 units	Area 5A with lab 4 units	5.3 units (5.3 units maximum combined credit for all three Physics exams)
Physics 1 ⁸	Plan A, Area A 4 units	Area B1 and B3 4 units ⁸	4 units	pending review	pending review
Physics 2 ⁸	Plan A, Area A 4 units	Area B1 and B3 4 units ⁸	4 units	pending review	pending review
Physics C (Electricity and Magnetism)	PHYS 227 4 units	Area B1 and B3 4 units ⁸	4 units	Area 5A with lab 3 units	2.7 units (5.3 units maximum combined credit for all three Physics exams)

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ADVANCED PLACEMENT POLICIES

(CONTINUED)

Advanced Placement Exam	SAC Course(s)/ Units Awarded (can also be used on Plan A)	CSU-GE (Plan B) Certification Area/ Semester Units Awarded ¹	CSU Minimum Semester Units Granted ²	IGETC (Plan C) Certification Area/ Semester Units Awarded ³	UC Minimum Semester Units Granted ⁴
Physics C (Mechanics)	PHYS 217 4 units	Area B1 and B3 4 units ⁸	4 units	Area 5A with lab 3 units	2.7 units (5.3 units maximum combined credit for all three Physics exams)
Psychology	PSYCH 100 3 units	Area D9 3 units	3 units	Area 4 3 units	2.7 units
Spanish Language	SPAN 101 and 102 10 units	Area C2, 3 units (6 units if passed prior to F '09)	6 units	Area 3B and 6A 3 units	5.3 units
Spanish Literature	Plan A Area C 3 units	Area C2, 3 units (6 units if passed prior to F '09)	6 units	Area 3B and 6A 3 units	5.3 units
Statistics	MATH 219 4 units	Area B4 3 units	3 units	Area 2A 3 units	2.7 units

¹All CSU campuses will accept toward fulfillment of the minimum units of the designated general education breadth area if the examination is included in full or subject area certification; individual CSU campuses may choose to accept more units than those specified towards completion of general education breadth requirements.

²This column reflects the number of units each campus system-wide will minimally grant for each exam. These units count toward eligibility for admission. **Some CSU campuses may award more than the minimum units listed in this column.** That information can be found in each CSU catalog.

³Each AP exam may be applied to one IGETC area as satisfying only one course requirement, with the exception of Language Other Than English. Exams may be used regardless of when the exam was taken.

⁴This column reflects the number of units each campus system-wide will grant for each exam. These units count toward eligibility for admission.

⁵AP exam may be used in either area regardless of where the SAC discipline is located.

⁶Students seeking CSU-GE certification prior to transfer must have passed this test before F '09.

⁷This examination only partially fulfills the CSU US History, Constitution, and American Ideals graduation requirement but can be used toward the requirement. (Please note that no AP exam fulfills the California State and Local Government portion, US-3.) See a counselor for more information.

⁸If a student passes more than one AP exam in Physics, only six units of credit may be applied to the baccalaureate, and only four units of credit may be applied to certification of CSU GE.



THE COLLEGE-LEVEL EXAMINATION (CLEP) POLICIES

Santa Ana College will grant credit to currently enrolled students for CLEP examinations passed with a score of 50 or higher (level II languages require a higher score). Although credit awarded through CLEP may be used to satisfy Santa Ana College graduation requirements, it cannot be used to satisfy the twelve-unit residency requirement. Students who have earned credit from a CLEP exam should not take a comparable college course since credit will not be granted for both. Credit for some exams may be applied toward general education requirements for plans A and B per the following chart; however, credit may not be applied toward plan C. **UC does not grant credit for CLEP examinations at this time.** Use of exams for SAC prerequisite clearance and major requirements is granted according to the determination of the appropriate SAC area dean in consultation with the department. Students should see a counselor for more information and submit official copies of CLEP test scores to the SAC Admissions and Records Office. Students are strongly advised to check with a SAC counselor and/or the Admissions Office of their transfer campus to determine how CLEP exams will be used to meet requirements at their transfer institution as policies may differ from SAC's.

College-Level Examination Program Exam	SAC GE (Plan A) Area/ Units	Total SAC Associate Degree Semester Units Granted	CSU-GE (Plan B) Certification Area/ Semester Units ¹	CSU Minimum Semester Units Granted ²
BUSINESS				
Financial Accounting	N/A	3 units	N/A	3 units
Information Systems and Computer Applications	N/A	3 units	N/A	3 units
Introductory Business Law	N/A	3 units	N/A	3 units
Principles of Accounting	N/A	3 units	N/A	3 units
Principles of Management	N/A	3 units	N/A	3 units
Principles of Marketing	N/A	3 units	N/A	3 units
COMPOSITION AND LITERATURE				
American Literature	Area C 3 units	3 units	Area C2 3 units	3 units
Analyzing and Interpreting Literature	Area C 3 units	3 units	Area C2 3 units	3 units
English Composition (no Essay)	N/A	0 units	N/A	0 units
English Composition (with Essay)	N/A	0 units	N/A	0 units
English Literature	Area C 3 units	3 units	Area C2 3 units	3 units
Freshman College Composition	N/A	0 units	N/A	0 units
Humanities	Area C 3 units	3 units	Area C2 3 units	3 units
FOREIGN LANGUAGES				
French Level I	N/A	6 units ³	N/A ³	6 units
French Level II	Area C 3 units (Required Score of 59)	12 units ³ (Required Score of 59)	Area C2 ³ 3 units (Required Score of 59)	12 units (Required Score of 59)
German Level I	N/A	6 units ³	N/A ³	6 units
German Level II	Area C 3 units (Required Score of 60)	12 units ³ (Required Score of 60)	Area C2 ³ 3 units (Required Score of 60)	12 units (Required Score of 60)
Spanish Level I	N/A	6 units ³	N/A ³	6 units
Spanish Level II	Area C 3 units (Required Score of 63)	12 units ³ (Required Score of 63)	Area C2 ³ 3 units (Required Score of 63)	12 units (Required Score of 63)
HISTORY AND SOCIAL SCIENCES				
American Government	Area B1 or B2 3 units	3 units	Area D8 3 units	3 units
History, United States I	Area B1 3 units	3 units	Area D6 and US-1 ⁵ 3 units	3 units
History, United States II	Area B1 3 units	3 units	Area D6 and US-1 ⁵ 3 units	3 units
Human Growth and Development	Area B2 3 units	3 units	Area E1 3 units	3 units
Introduction to Educational Psychology	N/A	3 units	N/A	3 units
Introductory Psychology	Area B2 3 units	3 units	Area D9 3 units	3 units
Introductory Sociology	Area B2 3 units	3 units	Area D10 3 units	3 units
Principles of Macroeconomics	Area B2 3 units	3 units	Area D2 3 units	3 units
Principles of Microeconomics	Area B2 3 units	3 units	Area D2 3 units	3 units
Social Sciences and History	N/A	0 units	N/A	0 units
Western Civilization I	Area B2 3 units	3 units	Area C2 or D6 ⁴ 3 units	3 units

(Continued on next page)



THE COLLEGE-LEVEL EXAMINATION (CLEP) POLICIES

(CONTINUED)

College-Level Examination Program Exam	SAC GE (Plan A) Area/ Units	Total SAC Associate Degree Semester Units Granted	CSU-GE (Plan B) Certification Area/ Semester Units ¹	CSU Minimum Semester Units Granted ²
Western Civilization II	Area B2 3 units	3 units	Area D6 3 units	3 units
SCIENCE AND MATHEMATICS				
Biology	Area A 3 units	3 units	Area B2 3 units	3 units
Calculus	Area E2 3 units	3 units ⁶	Area B4 3 units	3 units
Chemistry	Area A 3 units	3 units	Area B1 3 units	3 units
College Algebra	Area E2 ⁶ 3 units	3 units ⁶	Area B4 3 units	3 units
College Algebra – Trigonometry	Area E2 ⁶ 3 units	3 units ⁶	Area B4 3 units	3 units
College Mathematics	N/A	0 units	N/A	0 units
Natural Sciences	Area A 3 units	3 units	Area B1 or B2 3 units	3 units
Pre-Calculus	Area E2 3 units	3 units ⁶	Area B4 3 units	3 units
Trigonometry	Area E2 3 units	3 units ⁶	Area B4 3 units	3 units

¹All CSU campuses will accept the minimum units toward fulfillment of the designated general education breadth area if the examination is included in full or toward fulfillment subject area certification; individual CSU campuses may choose to accept more units than those specified towards completion of general education breadth requirements.

²This column reflects the number of units each campus system-wide will minimally grant for each exam. These units count toward eligibility for admission. **Some CSU campuses may award more than the minimum units listed in this column.** That information can be found in each CSU catalog.

³If a student passes more than one CLEP test in the same language other than English (e.g., two exams in French), then only one examination may be applied to the associate degree or to the baccalaureate. For each test in a language other than English, a passing score of 50 is considered “Level I” and earns six units of credit; the higher score listed for each test is considered “Level II” and earns additional units of credit and placement in Plan A, Area C and Plan B, Area C2, as noted.

⁴CLEP exam may be used in either area regardless of where CLEP discipline is located.

⁵This examination only partially fulfills the CSU US History, Constitution, and American Ideals **graduation** requirement but can be used toward the requirement. (Please note that no CLEP exam fulfills the California State and Local Government portion, US-3.) See a counselor for more information.

⁶Also fulfills Santa Ana College Math Proficiency.



INTERNATIONAL BACCALAUREATE POLICIES

Per the following chart students at Santa Ana College may be awarded units of credit for International Baccalaureate Exams passed with a score of 5 or higher, unless otherwise noted. Although credit awarded through IB may be used to satisfy Santa Ana College graduation requirements, it cannot be used to satisfy the twelve-unit residency requirement. Students who have earned credit from an IB exam should not take a comparable college course since credit will not be granted for both. Students should submit official copies of International Baccalaureate Examination test scores to the Admissions and Records office. Students are strongly advised to check with a SAC counselor and/or the Admissions Office of their transfer campus to determine how the IB exam will be used to meet requirements at their transfer institution as policies may differ from SAC.

International Baccalaureate Exam	SAC GE (Plan A) Area/ Units Awarded	CSU-GE (Plan B) Certification Area/ Semester Units Awarded ¹	CSU Minimum Semester Units Granted ²	IGETC (Plan C) Certification Area/ Semester Units Awarded ³	UC Minimum Semester Units Granted ⁴
Biology HL	Area A 3 units	Area B2 3 units	6 units	Area 5B (without lab) 3 units	5.3 units
Chemistry HL	Area A 3 units	Area B1 3 units	6 units	Area 5A (without lab) 3 units	5.3 units
Economics HL	Area B2 3 units	Area D2 3 units	6 units	Area 4 3 units	5.3 units
Geography HL	Area B2 3 units	Area D5 3 units	6 units	Area 4 3 units	5.3 units
History (any region) HL	Area B2 3 units	Area C2 or D6 ⁵ 3 units	6 units	Area 3B or 4 ⁵ 3 units	5.3 units
Language A1 (any language) HL ⁷ (prior to Fall '13)	Area C 3 units	Area C2 3 units ⁶	6 units ⁶	Area 3B 3 units	5.3 units
Language A1 (any language, except English) HL ⁷ (prior to Fall '13)	Area C 3 units	Area C2 3 units ⁶	6 units ⁶	Area 3B and 6A 3 units	5.3 units
Language A2 (any language) HL ⁷ (prior to Fall '13)	Area C 3 units	Area C2 3 units ⁶	6 units ⁶	Area 3B 3 units	5.3 units
Language A2 (any language, except English) HL ⁷ (prior to Fall '13)	Area C3 units	Area C2 3 units ⁶	6 units ⁶	Area 3B and 6A 3 units	5.3 units
Language A Literature HL	Area C 3 units	Area C2 3 units	6 units	pending review	pending review
Language A Language and Literature HL	Area C 3 units	Area C2 3 units	6 units	pending review	pending review
Language B (any language) HL ⁷	Area C 3 units	N/A	6 units ⁶	Area 6A 3 units	5.3 units
Mathematics HL Passing Score: 4	Area E2 ⁸ 3 units	Area B4 3 units ⁶	6 units ⁶	Area 2A 3 units	5.3 units
Physics HL	Area A 3 units	Area B1 3 units	6 units	Area 5A (without lab) 3 units	5.3 units
Psychology HL	Area B2 3 units	Area D9 3 units	3 units	Area 4 3 units	5.3 units
Theatre HL	Area C 3 units	Area C1 3 units ⁶	6 units ⁶	Area 3A 3 units	5.3 units

¹ All CSU campuses will accept the minimum units toward fulfillment of the designated General Education-Breadth area if the examination is included in full or subject area certification; individual CSU campuses may choose to accept more units than those specified towards completion of general education breadth requirements.

² This column reflects the number of units each campus system-wide will minimally grant for each exam. These units count toward eligibility for admission. **Some CSU campuses may award more than the minimum units listed in this column.** That information can be found in each CSU catalog.

³ Each IB exam may be applied to one IGETC area as satisfying only one course requirement, with the exception of Language Other Than English. Exams may be used regardless of when the exam was taken.

⁴ This column reflects the number of units each campus system-wide will grant for each exam. These units count toward eligibility for admission.

⁵ IB exam may be used in either area regardless of where the SAC discipline is located.

⁶ Score of 4 or higher required for CSU Credit.

⁷ The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language A1 and A2 are advanced courses in literature for native and non-native speakers, respectively.

⁸ Also fulfills Math Proficiency.



TRANSFER TO OTHER COLLEGES

This section of the catalog is designed to help students plan an academic program for transfer to a four-year college or university. It includes information about the transfer process and general education requirements.

Since transfer requirements change frequently, students should meet with a counselor regularly to plan an academic program which will assure a smooth transition to the transfer institution of their choice.

Four-year colleges and universities often make changes to their requirements. The requirements listed in this section were up-to-date at the time of publication; however, changes may have occurred after publication. Current transfer information and official articulation agreements are available in the University Transfer Center and the Counseling Center at Santa Ana College. Agreements are also available at www.assist.org and on the SAC Counseling Department website.

There are four segments of higher education in California. They are a) the University of California (UC) system with 10 campuses; b) the California State University (CSU) system with 23 campuses; c) independent colleges and universities; and d) 112 community colleges.

Santa Ana College provides the first two years of a four-year college or university program. Students enrolled in a transfer program can complete most of their general education and lower division major requirements before transferring. Students who are planning to transfer to a four year college or university should meet with a counselor in the Counseling Center or in the University Transfer Center at Santa Ana College to develop a Student Educational Plan that will identify the courses needed to transfer.

UNIVERSITY TRANSFER CENTER

The University Transfer Center (UTC), which is located in S-110 at Santa Ana College, provides information and assistance to students who are preparing to transfer to four year colleges and universities. Representatives from four year schools are available in the UTC to meet with students individually and provide information about their programs and requirements. The Center maintains a complete resource

library of college catalogs and other information about transfer programs. College Fairs are held each semester with representatives from California colleges and universities providing information to potential students. Transfer application workshops are offered during priority filing periods. In addition, organized tours to various four-year campuses are available through the UTC. For more information call 714-564-6165

TRANSFERABILITY OF COURSES

Students can transfer a maximum of 70 units to a UC or CSU campus.

Many courses offered by Santa Ana College will transfer to meet general education, major or elective requirements.

All courses numbered 100 or above will transfer to CALIFORNIA STATE UNIVERSITY.

Courses which are transferable to the UNIVERSITY OF CALIFORNIA are designated on the UC Transferable Course Agreement. Some of the courses that are transferable to the University of California have credit limitations. Check the UC Transferable Course Agreement on page 51 or at www.assist.org to determine these limitations.

INDEPENDENT AND OUT-OF-STATE COLLEGES AND UNIVERSITIES usually accept most courses that are transferable to the University of California and many of the courses acceptable at California State University campuses.

COURSE REQUIREMENTS FOR TRANSFER STUDENTS

A student can transfer from Santa Ana College to a four-year college or university as a junior without loss of time or credits by completing the following:

1. Lower Division Major Requirements

Most majors at four-year colleges and universities require the completion of one or more lower division courses as preparation for the upper division. Santa Ana College offers courses to meet the lower division requirements for most majors at four-year colleges and universities. Information about many specific major requirements for UC and CSU campuses

can be found at www.assist.org. Students should check the catalog of the college of intended transfer and meet with their counselor for additional information about major programs and requirements.

2. General Education Requirements

These are the courses required of everyone to obtain a degree regardless of major. They are designed to provide students with the knowledge and skills that will enable them to function as intelligent and creative members of the community. Courses in writing, critical thinking, mathematics, sciences, arts and humanities, and the social sciences are included in general education.

3. Electives

These are courses of choice taken in addition to courses for the major and general education requirements.

HONORS PROGRAM TRANSFER AGREEMENTS

Santa Ana College Honors Program students may opt to enter into honors transfer agreements with those participating four-year colleges and universities. Each agreement is specific to the four-year institutions but all offer, at least, "priority consideration for admission." While Santa Ana College continues to add to the honors transfer agreement list, SAC currently has agreements with:

California State University, Fullerton
California State University, San Diego
California State University, San Jose,
Engineering
California State University, Stanislaus
University of California, Berkeley
University of California, Irvine
University of California, Los Angeles
Azusa Pacific
Chapman University
La Sierra University
Loyola Marymount University
Mills College
Occidental College
Pacific University in Oregon
Pitzer College
Pomona College
Whitman College in Washington

New transfer agreements are added every year. For details regarding specific agreements, students may contact the Honors Coordinator at Santa Ana College, Kathleen Patterson, 714-564-6528.



CALIFORNIA STATE UNIVERSITY

The California State University has 23 campuses located throughout the state. While each campus within the system has its own unique geographic and curricular character, all campuses offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. The CSU offers more than 1,500 bachelor's and master's degrees in some 200 subject areas. Campuses are Bakersfield, Channel Islands, Chico, Dominguez Hills, East Bay, Fresno, Fullerton, Humboldt, Long Beach, Los Angeles, Monterey Bay, Northridge, Pomona (Cal Poly), Sacramento, San Bernardino, San Diego, San Francisco, San Jose, San Luis Obispo (Cal Poly), San Marcos, Sonoma, Stanislaus, and California Maritime.

To obtain a bachelor's degree from the CSU system, a student must usually complete a minimum of 120 or more semester units. A maximum of 70 units of CSU transferable credit will be accepted for courses completed at a community college.

Prospective CSU transfer students should consult a counselor regarding CSU admission as requirements vary depending upon the student's status at the time of high school graduation. The following information is offered as a general guideline.

CALIFORNIA STATE UNIVERSITY – ADMISSION REQUIREMENTS FOR TRANSFER

I. Lower Division Admission Requirements

Transfer applicants with fewer than 60 semester or 90 quarter units must have a grade point average of 2.0 (C) or better in all transferable units attempted, be in good standing at the last college or university attended, and meet any one of the following eligibility standards:

1. Transfer Based on Current Admission Criteria

The applicant meets the freshman admission requirements in effect for the term for which application is being made;

- OR -

2. Transfer Based on High School Eligibility

The applicant was eligible as a freshman at the time of high school graduation and has been in continuous attendance in an accredited college since high school graduation;

- OR -

3. Transfer Based on Making Up Missing Subjects

The applicant had a qualifying eligibility index at the time of high school graduation (combination of GPA and test scores if needed), has made up any missing college preparatory subject requirements with a grade of C or better, and has been in continuous attendance in an accredited college since high school graduation. One baccalaureate level course of at least 3 semester (4 quarter) units is usually considered equivalent to one year of high school study. Note: Due to enrollment pressures, most CSU campuses do not admit lower division transfers. Some campuses may require lower division transfer students to complete specific college coursework, e.g. the basic skill courses, as part of their admission criteria.

II. Upper Division Admission Requirements

To qualify for admission as an upper division transfer, applicants must complete 60 or more semester (90 or more quarter) transferable units and have met the following requirements:

- Completed at least 30 semester (45 quarter) units of general education courses, graded C or better in each course, including: All general education requirements in communication in the English language (9 semester or 12-15 quarter units) consisting of one course in written communication, one course in oral communication, one course in critical thinking (CSU GE category A), and one course in mathematics/quantitative reasoning (CSU GE category B4). The mathematics course must have intermediate algebra as a prerequisite. Go to www.assist.org for listings of courses at every CCC that meet the CSU general education requirements;
- Acquired a grade point average of 2.0 or better in all transferable college units attempted; and

- Are in good standing at the last college or university attended (i.e. eligible to re-enroll at that college or university).

Note: Campuses and/or programs and class levels that are designated as being impacted have additional admission criteria. For example, a 2.0 GPA may not be high enough for campuses and majors in high demand. See www.calstate.edu (search for impaction) for additional information on impacted programs.

TRANSFER ASSOCIATE DEGREE: A PATHWAY TO THE CSU DEGREE

The Student Transfer Achievement Reform Act (SB1440) established an Associate in Arts for Transfer (A.A.-T) or Associate in Science for Transfer (A.S.-T). The A.A.-T or A.S.-T degrees are designed to provide a clear pathway to the California State University (CSU) degree major. Please see page 30 for additional information about these degrees.

GENERAL EDUCATION REQUIREMENTS FOR CALIFORNIA STATE UNIVERSITY

To earn a bachelor's degree from the California State University, each student must complete a program of general education. Santa Ana College offers two general education programs that will enable students to meet the lower division general education requirements for all CSU campuses prior to transfer. Students can complete either the CSU General Education Breadth Requirements (see page 38 of the catalog for GE Plan B) or the Intersegmental General Education Transfer Curriculum (see page 39 of the catalog for GE Plan C). Students can also meet the general education requirements of a specific CSU campus.

CERTIFICATION OF GENERAL EDUCATION FOR TRANSFER TO CSU

See certification information on page 48.



UNIVERSITY OF CALIFORNIA

The University of California has ten campuses located throughout the state. Each campus within the system has its own unique geographic and academic character. The University offers bachelor's, master's and doctoral degrees in a variety of subject areas. Campuses of the University are located in Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco (Schools of Medicine, Dentistry and Pharmacy), Santa Barbara and Santa Cruz.

To obtain a baccalaureate degree from the UC system, a student must complete a minimum of 120 semester units (180 quarter units). A maximum of 70 units of transferable credit will be accepted for courses completed at a community college.

Prospective UC transfer students should consult a counselor regarding UC admission, as requirements vary depending upon the student's status at the time of high school graduation. The following information is offered as a general guideline.

UNIVERSITY OF CALIFORNIA – ADMISSION REQUIREMENTS FOR TRANSFER

I. Lower-Division Transfer

While all UC campuses welcome a large pool of junior-level transfers, most admit only a limited number of lower division transfers. However, it can happen. Here's how:

If a student was eligible for admission to the University when he or she graduated from high school – meaning the student satisfied the Subject, Scholarship and Examination Requirements, the student is eligible for transfer if he or she has a 2.0 GPA (2.8 for non residents) in transferable college coursework.

If a student met the Scholarship Requirement in high school but did not satisfy the Subject Requirement, the student must take transferable college courses in the missing subjects, earn a C or better in each required course and maintain an overall 2.0 GPA (2.8 for non residents) in all transferable coursework to be eligible to transfer.

II. Upper Division Transfer

The vast majority of transfer students come to the University at the junior level from California community colleges. To be eligible for admission as a junior transfer student, a student must fulfill both of the following criteria:

1. Complete 60 semester (90 quarter) units of transferable college credit with a gpa of at least 2.4 (2.8 for nonresidents). No more than 14 semester (21 quarter) units may be taken Pass/Not Pass.

2. Complete the following course pattern requirements, earning a grade of C or better in each course:

- Two transferable college courses (3 semester or 4–5 quarter units each) in English composition;
- One transferable college course (3 semester or 4–5 quarter units) in mathematical concepts and quantitative reasoning;
- Four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, and the physical and biological sciences.

If a student satisfies the Intersegmental General Education Transfer Curriculum (IGETC) prior to transferring, he or she may satisfy part 2 of the transfer eligibility requirements.

Keep in mind that meeting these requirements does not guarantee admission to the campus or major of your choice. Many campuses and majors receive more applications than they have spaces available.

GENERAL EDUCATION REQUIREMENTS FOR THE UNIVERSITY OF CALIFORNIA

To earn a bachelor's degree from the University of California, each student must complete a program of general education. To meet the general education requirements of the University, students can complete either the Intersegmental General Education Transfer Curriculum (see page 39 of the catalog for GE Plan C) or individual campus general education requirements. Santa Ana College generally recommends that students follow the IGETC rather than the individual campus requirements as this will provide more flexibility when applying to transfer. **However, IGETC should generally not be used for the following:** The colleges of Engineering, Chemistry, and the Haas School of Business at **UCB**; anyone preparing for a bachelor of science or high unit majors at **UCD**; the Henry Samueli School of Engineering and Applied Science at **UCLA**; the school of Engineering and the School of Natural Sciences at **UCM**; the Marlan and Rosemary Bourns College of Engineering (in some cases) and the College of Natural and Agricultural Sciences at **UCR**; Revelle and Roosevelt Colleges may require coursework after enrollment at **UCSD**; students in the College of Engineering may want to choose IGETC courses that also satisfy the college depth requirement at **UCSB**; any major in the Jack Baskin School of Engineering at **UCSC**. Students who began at a UC campus

and who intend to transfer back to the same campus cannot use IGETC. Some UC campuses do not allow students who began at another UC campus to use IGETC. Students in the above categories should follow the GE requirements of the UC campus they are transferring to. Consult a counselor for additional information.

CERTIFICATION OF GENERAL EDUCATION FOR TRANSFER TO UC OR CSU

Upon a student's request Santa Ana College will verify the completion of lower division general education requirements for transfer to the University of California (IGETC, Plan C), or the California State University (either CSU GE Breadth or IGETC, Plan B or Plan C). Students who transfer without certification will have to meet the general education requirements of the specific UC or CSU campus to which they are transferring. Meeting these requirements usually necessitates taking additional courses.

Students who have taken courses at other colleges can have these courses used in the certification process. Santa Ana College will certify (guarantee) courses taken at other California community colleges in the IGETC or CSU GE Breadth areas designated by the offering college. Courses taken at regionally accredited California four-year colleges or out-of-state two-year or four-year colleges will be certified for IGETC or CSU GE Breadth if they are equivalent to courses on the Santa Ana College IGETC or CSU GE Breadth list respectively. In some cases non-equivalent courses may also be considered. Consult a SAC counselor for additional information. Courses from foreign institutions (without U.S. regional accreditation) cannot be used in either the CSU GE Breadth or IGETC certification process.

Students should request IGETC certification from the last California Community College they attend prior to transfer to UC or CSU.

CSU GE Breadth Certification of course work from other colleges will only be granted to students whose last community college of attendance prior to transfer is Santa Ana.

Certification petition forms are available in the SAC Counseling Center



INDEPENDENT AND OUT-OF-STATE COLLEGES AND UNIVERSITIES

In addition to state-supported colleges and universities in California, there are many outstanding independent institutions in the state. There are also many colleges, both private and public, located throughout the United States to which Santa Ana College students can transfer. Each of these institutions has its own unique requirements for admission. In order to determine eligibility, students should consult with the college of their choice along with a Santa Ana College counselor.

California's independent colleges and universities provide many options at the undergraduate, graduate, and professional levels for students planning to continue their education beyond the community college.

Financial aid may be a primary factor in making it possible for a student to attend an independent college or university. There are many forms of financial assistance available, such as federal, state, institutional, and private aid. Students should apply for scholarships, grants, loans, and work-study awards from all possible sources. All independent colleges urge, and some require, that all undergraduates who are California residents apply for a Cal Grant. The Free Application for Federal Student Aid (FAFSA) and the California Dream Act Application may be submitted in January for the following academic year. Filing instructions and deadlines are indicated on the web sites www.fafsa.ed.gov and <https://dream.csac.ca.gov> respectively. Further details and assistance are available in the Financial Aid Office.

California's private, non-profit, WASC-accredited colleges and universities include:

- Alliant International University
- American Jewish University
- Antioch University Los Angeles
- Art Center College of Design
- Azusa Pacific University
- Biola University
- Brandman University
- California Baptist University
- California College of the Arts
- California Institute of the Arts
- California Institute of Integral Studies
- California Institute of Technology
- California Lutheran University
- Chapman University
- Claremont McKenna College
- Concordia University
- Dominican University of California
- Fresno Pacific University
- Golden Gate University
- Harvey Mudd College
- Holy Names University
- Hope International University
- Humphreys College
- Laguna College of Art and Design
- La Sierra University
- Loma Linda University
- Loyola Marymount University
- Marymount California University
- The Master's College
- Menlo College
- Mills College
- Mount St. Mary's College
- National University
- Notre Dame de Namur University
- Occidental College
- Otis College
- Pacific Oaks College
- Pacific Union College
- Palo Alto University
- Pepperdine University
- Pitzer College
- Point Loma Nazarene University
- Pomona College
- Saint Mary's College of California
- Samuel Merritt University
- San Diego Christian College
- San Francisco Art Institute
- San Francisco Conservatory of Music
- Santa Clara University
- Saybrook University
- Scripps College
- Simpson University
- Sofia University
- Soka University
- Southern California University of Health Sciences
- Stanford University
- Thomas Aquinas College
- Touro University of California
- University of La Verne
- University of the Pacific
- University of Redlands
- University of San Diego
- University of San Francisco
- University of Southern California
- Vanguard University
- West Coast University
- Western University of Health Sciences
- Westmont College
- Whittier College
- William Jessup University
- Woodbury University

GENERAL EDUCATION REQUIREMENTS FOR INDEPENDENT AND OUT-OF-STATE COLLEGES AND UNIVERSITIES

Santa Ana College has articulated general education requirements with a number of independent institutions such as Chapman University, Loma Linda University, the University of Southern California, and Pepperdine University. In addition, some independent and out-of-state colleges and universities will accept full IGETC and/or CSU GE breadth certification in lieu of their own lower division general education requirements. Students transferring to independent or out-of-state institutions should meet with a counselor in order to determine appropriate general education requirements. Information can also be found on the Counseling Division website, under "Articulation."



BEGIN A TRANSFER MAJOR AT SANTA ANA COLLEGE

In order to get a bachelor's degree, students need to select a subject area in which to specialize. This subject area is called a major. Almost every major requires that certain courses be completed during the first and/or second year of college. These are called Lower Division Major Requirements. Many of these can be completed at SAC prior to transferring. (The highly specific courses in the major are called Up-

per Division Requirements, and these are completed after transfer.) In developing a program for transfer, first consideration in most cases should be given to completing the courses required in the transfer major or as preparation for the major. *Note that these requirements may differ from major requirements for the associate degree.*

Below is a partial listing of majors one might choose to begin at SAC. Visit the Transfer or Counseling Centers or make an appointment with a counselor to discuss which courses students should take at SAC to begin preparation in the chosen transfer major. In addition, www.assist.org lists required courses for many UC and CSU majors.

Anthropology
 Art/Art History/Studio Arts
 Astronomy
 Behavioral Sciences
 Biology/Biochemistry
 Black Studies
 Botany
 Business Administration (*the following may be emphases under Business Administration or may be separate majors*)
 Accounting
 Business Economics
 Finance
 Human Resources
 International
 Management
 Management/Computer Information Systems
 Management Science
 Marketing
 Chemical Engineering
 Chemistry
 Chicano Studies
 Child Development
 Civil Engineering
 Communication Studies
 Communications & Media Studies
 Communicative Disorders
 Community Social Services
 Comparative Literature
 Computer Engineering
 Computer Information Systems
 Computer Science
 Criminal Justice
 Dance
 Earth Science
 Ecology
 Economics
 Electrical Engineering
 Engineering
 Engineering Technology
 English
 Ethnic Studies
 Family and Consumer Sciences/
 Home Economics
 Film Studies

Fire Protection Administration and Technology
 Geography
 Geology
 Graphic Design
 Health Science
 History
 Hotel/Restaurant Management
 Human Development
 Human Services
 Humanities
 Industrial Engineering
 International Business
 International Studies
 Kinesiology
 Liberal Studies
 Linguistics
 Mathematics
 Mechanical Engineering
 Meteorology
 Microbiology
 Modern Languages
 Music/Musicology
 Nursing
 Nutrition and Dietetics/Food Science
 Occupational Therapy*
 Oceanography*

Philosophy
 Physical Education/Exercise Science
 Physical Therapy*
 Physics
 Political Science
 Pre-Chiropractic
 Pre-Dentistry*
 Pre-Law*
 Pre-Medicine*
 Pre-Optometry*
 Pre-Pharmacy*
 Pre-Veterinary Medicine*
 Psychology
 Public Administration
 Radio/Television/Film
 Religious Studies
 Social Ecology
 Social Work
 Sociology
 Spanish
 Teaching**
 Theater Arts/Drama
 Urban Studies
 Women's Studies
 Zoology

*These are primarily graduate programs for which undergraduate majors can vary. Students should see a counselor to determine what undergraduate major might be appropriate.

**Undergraduate majors for those planning to teach K-12 can vary widely depending upon the subject and grade level to be taught. Students should see a counselor to determine what undergraduate major might be appropriate.

The above list does not represent all transfer majors at all colleges. To find out exactly what majors are available at any particular college/university, students should visit the University Transfer Center at Santa Ana College. Transfer specialists are there to assist students, and resources are available for student use in these locations.

Transfer students may also want to complete an associate degree or an Associate for Transfer degree. While not always a requirement for transfer, the associate degree or Associate Degree for Transfer is generally recommended, and proper planning should enable students to satisfy both requirements for graduation from SAC and for transfer.



UNIVERSITY OF CALIFORNIA (UC) TRANSFER COURSE AGREEMENT 2014-2015

This agreement lists courses transferable for unit credit at all UC campuses. This list is valid for courses completed during Fall 2014, Spring 2015 and Summer 2015. Additional courses for 2014-2015 may be approved after the publication date for this catalog.

ACCOUNTING

101, 102

ANTHROPOLOGY

100, 100H, 101, 101L, 103, 104, 104H, 105, 108, 125

ART

100, 100H, 101, 102, 103, 104, 105, 106, 108, 110, 111, 130, 131, 132A, 132B, 140A, 140B, 141, 143, 150, 151, 152, 153, 154†, 155, 156, 157, 158, 159A, 159B, 195^, 230, 231, 232, 233, 240, 241, 242, 243, 251, 252

ASIAN AMERICAN STUDIES

101

ASTRONOMY

109, 110, 110H, 140

BIOLOGY

*109, *109H, 109L, 111%, 115^, 129, **139†, 177, 200, 211, 212, 214, **229, 239, 249, 259, ***290ø

*No credit for 109 or 109H if taken after 211

**139 and 229 combined maximum credit, one course.

***211 and 290 combined maximum credit, one course.

BLACK STUDIES

101

BUSINESS

100, *101, *105, **150

*Maximum credit, one course

**No credit for Business 150 if taken after Computer Science 105

BUSINESS APPLICATIONS

150†

CHEMISTRY

109, 115, *119, *209, 210^, 219, 219H, 229, 249, 259

*109, 119, and 209 combined, maximum credit, one course

No credit for 109, 119, or 209 if taken after 219

CHICANO STUDIES

101

CHINESE

101, 102

COMMUNICATION STUDIES

101, 101H, 102, 103, 103H, 140, 145, 152, 158#, 206, 206H

COMMUNICATIONS AND MEDIA STUDIES

103€, 110€, 111*

COMPUTER SCIENCE

100, 105, 112, 120†, 121, 129, 131, 141, 205, 213, 243

COUNSELING

107#, 116^, 128, *144

*144, Philosophy 111 and 144 combined maximum credit, one course.

CRIMINAL JUSTICE

101, 103, 109

DANCE

100, 100H, 102, 105, 106A, 106B, 107, 108A, 108B, ~109A, ~109B%, 109C%, 110, 111, 112, 113A, 113B, 117, 118, 119A, 119B, ~122, 123, 124, 130, ~132, 140, 201A, 201B, 202A, 202B, 204A, 204B, 205, 206A, 206B, 209, 210, 213, 214, 219A, 219B, 220, 221, 232, 240A, 240B, 250A%, 250B%, 251%, 260%, 261%, 262%, 263%, ~270, 296, 297, ~298
~any or all of these PE Activity or Dance courses combined maximum credit, 4 units

EARTH SCIENCE

*110, *110H, **115†, 150, 150H

*110 combined with 110H, Geography 101 or Geology 101, maximum credit one course

**No credit for 115 if taken after 110, Geography 101 or Geology 101.

ECONOMICS

120, 121

EDUCATION

100 (formerly 101^), 210

ENGINEERING

100A (formerly 148), 122, 124, 125, 165€, 183, 228, 235, 240†, 250, 250L, 281

ENGLISH

101, 101H, 102, 102H, 103, 103H, 104, 104H, 206, 211, 212, 214, 215, 220, 231, 232, 233A, 233B, 233C, 233D, 241, 242, 243, 245, 246, 271, 272, 278

ENGLISH FOR MULTILINGUAL STUDENTS

*110, *112

*Any or all of these courses combined maximum credit, 8 units

ENVIRONMENTAL STUDIES

140, 200, 259

ETHNIC STUDIES

101, 101H, 102, 102H

FASHION DESIGN MERCHANDISING

104

FRENCH

*101, 102, 201, 201H, 202, 202H, 211^, 214

*Corresponds to two years of high school study

GEOGRAPHY

100, 100H, *101, 101L, 102

*101 combined with Earth Science 110, 110H, Geology 101, maximum credit, one course

GEOLOGY

*101, 101L, 140, 150, 150H, 201

*101 combined with Earth Science 110, 110H, Geography 101, maximum credit, one course

HISTORY

101, 101H, 102, 102H, 105, 118, 120, 120H, 121, 121H, 123, 124, 124H, 125, 127, 128H, 133, 146, 150, 151, 153, 163^, 181

*No credit for 122 if taken after 120/120H or 121/121H

HUMAN DEVELOPMENT

*107, 110

*107 and PSYC 157 combined maximum credit, one course

INTERDISCIPLINARY STUDIES

117H, 121€, 155, 200

JAPANESE

*101, 102

*Corresponds to two years of high school study

KINESIOLOGY

KNAC ~107, ~107A, ~123, ~140, ~150, ~155, ~160, ~169, ~170, ~200, ~211, ~220A, ~220B, ~220C, ~226, ~235, ~236, ~260, ~260A, ~260B, ~262, ~265, ~265A, ~265B, ~290, ~292;

KNAD ~201, ~202, ~202A, ~202B, ~205, ~208, ~208A, ~208B, ~211, ~211A, ~211B;

KNAF ~140, ~143, ~144, ~146, ~146A, ~146B, ~150, ~156, ~156A, ~156B, ~157^;

KNAQ ~201, 204, ~206;

Note: Duplicate credit will not be awarded for both the honors and regular versions of a course. Credit will only be awarded to the first course completed with a grade of "C" or better.



KNFI ~100, ~101A, ~101B, ~101C, ~102, ~109A, ~109B, ~109C, ~110A, ~110B, ~110C, ~115A, ~115B, ~115C, ~126A, ~126B, ~126C, ~127A, ~127B, ~127C, ~147A, ~147B;

KNHE **101, **102, **104, ***105, ***107;

KNIA ~103, ~124, ~125, ~128, ~133, ~134, ~171, ~201, ~202, ~204, ~206, ~207, ~209, ~210, ~211, ~212, ~213, ~214, ~216, ~217, ~218, ~219, ~220, ~221, ~223, ~227, ~231, ~232, ~240, ~261, ~262, ~270, ~271, ~281, ~291;

KNPR 101 \emptyset , +155, +165, +175, +200, 201%, 203%, 207%;

KNSM 101, 150

~any or all of these PE Activity or Dance courses combined maximum credit, 4 units

+any or all of these courses combined maximum credit, 8 units

**101, 102, and 104 combined maximum credit, one course

***105 and 107 combined maximum credit, one course

LIBRARY TECHNOLOGY

*102

*102 and Library and Information Studies 100 combined maximum credit, one course

LIBRARY AND INFORMATION STUDIES

*100

*100 and Library Technology 102 combined maximum credit, one course

MATHEMATICS

105, *140, 145, **150, *170, **180, **180H, 185, 204, 219, 219H, 280, 287†

*140 and 170 combined maximum credit, one course

**150, 180, and 180H combined maximum credit, one course

MUSIC

101, 101H, 102, 102H, 103, 104[^], 110, 111, 112, *113A, *113B, 114A, 114B, 115A, 115B, 115C, 115D, 121, 122, 123, 124, 132, 134, 135, 136, 137, 140, 141, 145^{*}, 161, 162, 163, 164A, 164B, 165, 166A%, 166B%, 168, 169, 170, 171, 173#, 175, 176, 177, 178, 179, 180A, 180B%, 181, 185, 186, 187, 188, 189, 211, 213, 214, 215A, 216, 217, 241, 268%, 271 \emptyset

* No credit for 113AB if taken after 114AB

NUTRITION AND FOOD

115, 115H

PHILOSOPHY

106, 106H, 108, 110, 110H, *111, 112, 118, *144

*111 and 144/Counseling 144 combined maximum credit, one course

PHOTOGRAPHY

150, 180

PHYSICAL SCIENCE

115, *117, *118

* No credit for 117 or 118 if taken after a college course in Chemistry or Physics

PHYSICS

*109, **210, **211, **217, **227, **237, **279, **289

*No credit for 109 if taken after 217 or 279

**210, 211, or 217, 227, 237, or 279, 289 combined maximum credit, one series; deduct credit for duplication of topics

POLITICAL SCIENCE

101, 101H, 200, 200H, 201, 220, 235^{*}

PSYCHOLOGY

100, 100H, 140, *157, 170, 200, 210%, 219, 230, 240, 250

*157 combined with HU-D 107: maximum credit, one course

SCIENCE

200

SIGN LANGUAGE

*110#, 111#, 112, 116#

*Corresponds to two years of high school study

SOCIAL SCIENCE

219, 219H

SOCIOLOGY

100, 100H, 112, 140, 140H, 240

SPANISH

*101, *101H, 102, 102H, 195A, 195B, 201, 201H, 202, 202H, 212, 213

*Corresponds to two years of high school study

SPEECH LANGUAGE PATHOLOGY ASSISTANT

119#, 160

TELEVISION/VIDEO COMMUNICATION

103, 104, 105, 105H, 142, 150

THEATER ARTS

100, 105 \diamond , 110, 111, 113, 118, 131, 132, 133, 135, 150, 151^{*}, 152 \emptyset , 153^{*}, 154^{*}, 155 \diamond , 156 \dagger , 250

VARIABLE TOPICS

These courses are also called "Independent Studies", "Special Studies", "Special Topics", "Field Work", etc. and are typically numbered 198 or 199 at SAC. Credit for variable topics courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs after transfer and may include

recommendations from faculty. **Students are advised to save all materials from their SAC Variable Topics course(s), typically numbered 198.** Information about internships may also be presented for review, but credit for internships rarely transfers to UC. No credit for Special Topics courses in Journalism, Photography, Health, Business Administration, Architecture, Criminal Justice (Criminology), or Library Departments due to the credit restrictions in these areas.

VIETNAMESE

*101, 102

*Corresponds to two years of high school study

WOMEN'S STUDIES

101, 102

- + **New addition to the list effective Fall 2001** (UC credit not granted for course taken prior to Fall 2001)
- # **New addition to the list effective Fall 2002** (UC credit not granted for course taken prior to Fall 2002)
- ^ **New addition to the list effective Fall 2003** (UC credit not granted for course taken prior to Fall 2003)
- ‡ **New addition to the list effective Fall 2006** (UC credit not granted for course taken prior to Fall 2006)
- ❖ **New addition to the list effective Fall 2007** (UC credit not granted for course taken prior to Fall 2007)
- ^ **New addition to the list effective Fall 2008** (UC credit not granted for course taken prior to Fall 2008)
- † **New addition to the list effective Fall 2009** (UC credit not granted for course taken prior to Fall 2009)
- € **New addition to the list effective Fall 2010** (UC credit not granted for course taken prior to Fall 2010)
- ★ **New addition to the list effective Fall 2011** (UC credit not granted for course taken prior to Fall 2011)
- ∅ **New addition to the list effective Fall 2012** (UC credit not granted for course taken prior to Fall 2012)
- % **New addition to the list effective Fall 2013** (UC credit not granted for course taken prior to Fall 2013)

This list is informational only and is based on the official Santa Ana College 2013-2014 UC Transfer Course Agreement which can be found at www.assist.org. UC transferable course lists for additional years are also located on ASSIST. For more information consult a Santa Ana College counselor.

Note: Duplicate credit will not be awarded for both the honors and regular versions of a course. Credit will only be awarded to the first course completed with a grade of "C" or better.



COLLEGE CREDIT INSTRUCTIONAL PROGRAMS

Programs of study leading to the certificate or the associate degree or certification in specialized vocational areas are alphabetically arranged.

Programs which lead to transfer to universities and four-year colleges do not necessarily reflect the transfer requirements of specific schools. If the student wishes to receive an associate degree in a specific discipline, the requirements as set forth must be met. However, in planning a program for transfer, it should be noted that the transfer requirements for both the major and general education vary widely. Hence it is recommended that the student review the catalog of the school of transfer and consult with the counseling staff of Santa Ana College in planning transfer objectives.



ACCOUNTING

Accounting Degree (sac.acct.aa)

The associate degree in accounting prepares students for entry-level positions and promotional opportunities in accounting, taxation and administrative departments of businesses in areas such as manufacturing, merchandising, financial service, wholesale trades, and government. Specialized training in accounting enables students to maintain accounting records and develop financial reports and make effective use of financial information for analysis and decision-making. Entry-level employment opportunities include positions in accounts receivable and accounts payable, payroll, income tax preparation, and cost accounting. Promotional opportunities include higher-level responsibilities in these areas and the areas of general ledger, financial statement preparation, and financial statement analysis.

Core Courses for the associate in arts degree:

Course	Units
Accounting 101, Financial Accounting	4
Accounting 102, Managerial Accounting	4
Accounting 104, Federal and California Taxes	4
Business 222, Business Writing	3

Select ONE course from the following:

Accounting 160, Accounting with Sage MAS Software (3)	3-4
Accounting 170, Microsoft Dynamics for Financial Accounting – Core Modules (4)	

Select a minimum of THREE units from the following electives: 3

Accounting 035, QuickBooks (2)	21-23
Accounting 108, Tax Practices and Procedures (3)	
Accounting 113, Intermediate Income Taxes – Corporations (2)	
Accounting 114, Intermediate Income Taxes – Partnerships and LLCs (2)	
Accounting 124, Computerized Income Tax Preparation (1)	
Accounting 171, Microsoft Dynamics for Financial Accounting – Operations and Analysis (4)	
Accounting 173, Microsoft Dynamics for Project Management and Control (4)	
Accounting 174, Microsoft Dynamics for Business Planning and Management (4)	
Accounting 204, Managerial Cost Accounting (3)	
Accounting 205, Intermediate Accounting (3)	
Computer Science 163, Microsoft Excel (3)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Microsoft Excel (1.5)	
Total	

Students intending to obtain a bachelor's degree in Accounting or Business are advised to meet with a counselor, and to also look at the degree requirements listed in the catalog of the transfer university of their choice.

General Accounting Certificate (Transcripted) (sac.acctg.ca)

A certificate in accounting prepares students for entry-level positions and promotional opportunities in accounting, taxation, and administrative departments of businesses in public and private sector areas such as manufacturing, merchandising, financial service, wholesale trades, and government. Specialized training in accounting and finance principles and practices enables students to maintain accounting records and develop financial reports and make effective use of financial information for analysis and decision-making. Entry-level employment opportunities include positions in accounts receivable/payable, payroll, income tax preparation, cost accounting, and a number of trainee positions. Promotional opportunities include higher-level responsibilities in these areas and the areas of general ledger, financial statement preparation, and financial statement analysis.

Requirements for the certificate:

Core Courses for the certificate:	Units
Accounting 101, Financial Accounting	4
Accounting 102, Managerial Accounting	4
Business 222, Business Writing	3
—OR—	
Management 122, Business Communications	3-4
Business 150, Introduction to Information Systems and Applications (3)	
—OR—	4-5
Business Applications 179, Introduction to Microsoft Office (4)	
Select 4-5 units from the following:	
Accounting 032, Payroll Accounting (1)	18-20
Accounting 035, QuickBooks (2)	
Accounting 104, Federal and California Taxes (4)	
Accounting 105, Intermediate Federal and California Taxes (4)	
Accounting 106, Cooperative Work Experience Education – Occupational (1-4)	
Accounting 124, Computerized Income Tax Preparation (1)	
Accounting 160, Computerized Accounting with MAS 90® – Part 1 Core Modules (3)	
Accounting 170, Microsoft Dynamics for Financial Accounting – Core Modules (3)	
Accounting 204, Managerial Cost Accounting (3)	
Accounting 205, Intermediate Accounting (3)	
Business 100, Fundamentals of Business (3)	
Business 120, Principles of Management (3)	
Business 125, Introduction to International Business (3)	
Business 127, Introduction to E-Commerce (3)	
Business 130, Personal Finance (3)	
Business 160, Introduction to Stock and Bond Investments (3)	
Banking 010, Teller Training for Financial Institutions (2)	
Total	

Students intending to obtain a bachelor's degree in Accounting or Business are advised to meet with a counselor, and to also look at the degree requirements listed in the catalog of the transfer university of their choice. Students planning to transfer to four-year institutions should strongly consider taking Business 222, Business Writing, to meet the communication requirement.

Computerized Accounting Certificates

Computerized Accounting–QuickBooks Option Certificate (Transcripted) (sac.acctq.ca)

A certificate in accounting prepares students for entry-level positions and for promotional opportunities in accounting departments of businesses, including areas such as manufacturing, merchandising, financial services, wholesale trades, and government. Specialized training in computerized accounting systems enables students to maintain accounting records, develop financial reports, and make effective use of financial information for analysis and decision-making. Entry-level employment opportunities include positions in accounts receivable, accounts payable, payroll, and cost accounting. Promotional opportunities include higher-level responsibilities in these areas and the areas of general ledger, financial statement preparation, and financial statement analysis.

Take all of the following courses:	Units
Accounting 035, QuickBooks	2
Accounting 101, Financial Accounting	4
Management 122, Business Communications (3)	3
—OR—	
Business 222, Business Writing (3)	3
Business 150, Introduction to Information Systems and Applications	



Select a minimum of 3 units from the following electives:	3-4
Accounting 032, Payroll Accounting (1)	
Accounting 124, Computerized Income Tax Preparation (1)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Excel Application Projects (1.5)	
Computer Science 163, Microsoft Excel (3)	
Business Applications 179, Introduction to Microsoft Office (4)	
Total	15-16

Computerized Bookkeeping–QuickBooks Option Certificate (Transcripted) (sac.acctbq.ca)

Take all of the following courses:	Units
Accounting 035, QuickBooks	2
Accounting 032, Payroll Accounting	1
Business Applications 179, Introduction to Microsoft Office	4
Select ONE of the following courses:	3-4
Accounting 010, Accounting Procedures (3)	
—OR—	
Accounting 101, Financial Accounting (4)	
Select ONE of the following courses:	3
Business Applications 017, Business Writing Skills (3)	
Management 122, Business Communications (3)	
Business 222, Business Writing (3)	
Select a minimum of 1 unit from the following electives:	1-1.5
Accounting 124, Computerized Income Tax Preparation (1)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Excel Application Projects (1.5)	
Total	14-15.5

Accounting with Sage MAS Software Certificate (Transcripted) (sac.acctm.ca)

A certificate in accounting prepares students for entry-level positions and for promotional opportunities in accounting departments of businesses, including areas such as manufacturing, merchandising, financial services, wholesale trades, and government. Specialized training in computerized accounting systems enables students to maintain accounting records, develop financial reports, and make effective use of financial information for analysis and decision-making. Entry-level employment opportunities include positions in accounts receivable, accounts payable, payroll, and cost accounting. Promotional opportunities include higher-level responsibilities in these areas and the areas of general ledger, financial statement preparation, and financial statement analysis.

Required Core:	Units
Accounting 101, Financial Accounting	4
Accounting 160, Accounting with Sage MAS Software (3)	3
—OR—	
Accounting 161, Accounting with Sage MAS Software – Advanced (3)	
Management 122, Business Communications (3)	3
—OR—	
Business 222, Business Writing (3)	
Business 150, Introduction to Information Systems and Applications	3
Select a minimum of 3 units from the following electives:	3
Accounting 032, Payroll Accounting (1)	
Accounting 124, Computerized Income Tax Preparation (1)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Excel Application Projects (1.5)	
Computer Science 163, Microsoft Excel (3)	
Business Applications 179, Introduction to Microsoft Office (4)	
Total	16-17

Computerized Bookkeeping–Sage MAS Software Certificate (Transcripted) (sac.acctbm.ca)

A certificate in accounting prepares students for entry-level positions and for promotional opportunities in accounting departments of businesses, including areas such as manufacturing, merchandising, financial services, wholesale trades, and government. Specialized training in computerized accounting systems enables students to maintain accounting records, develop financial reports, and make effective use of financial information for analysis and decision-making. Entry-level employment opportunities include positions in accounts receivable, accounts payable, payroll, income tax preparation, and cost accounting. Promotional opportunities include higher-level responsibilities in these areas and the areas of general ledger, financial statement preparation, and financial statement analysis.

Take all of the following courses:	Units
Accounting 032, Payroll Accounting	1
Business Applications 179, Introduction to Microsoft Office	4
Select ONE of the following courses:	3
Accounting 160, Accounting with Sage MAS Software (3)	
Accounting 161, Accounting with Sage MAS Software – Advanced (3)	
Select ONE of the following courses:	3-4
Accounting 010, Accounting Procedures (3)	
Accounting 101, Financial Accounting (4)	
Select ONE of the following courses:	3
Business Applications 017, Business Writing Skills (3)	
Management 122, Business Communications (3)	
Business 222, Business Writing (3)	
Select a minimum of 1 unit from the following courses:	1-1.5
Accounting 124, Computerized Income Tax Preparation (1)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Microsoft Excel (1.5)	
Total	15-16.5

Accounting and Financial Planning Certificate (Untranscripted) (sac.acctf.cert)

A certificate in accounting prepares students for entry-level positions and for promotional opportunities in accounting departments of businesses, including areas such as manufacturing, merchandising, financial services, wholesale trades, and government. Specialized training in computerized accounting systems enables students to maintain accounting records, develop financial reports, and make effective use of financial information for analysis and decision-making. Entry-level employment opportunities include positions in accounts receivable, accounts payable, payroll, and cost accounting. Promotional opportunities include higher-level responsibilities in these areas and the areas of general ledger, financial statement preparation, and financial statement analysis.

Take all of the following courses:	Units
Accounting 101, Financial Accounting	4
Accounting 104, Federal and California Taxes	4
Business 130, Personal Finance	3
Business 160, Introduction to Stock and Bond Investments	3
Select one of the following courses:	3-4
Accounting 102, Managerial Accounting (4)	
Business 140, Principles of Finance (3)	
Total	17-18



Enrolled Agent Certificate (Untranscribed) ([sac.actea.cert](#))

Requirements for the certificate:

Core Courses for the certificate:	Units
Accounting 101, Financial Accounting	4
Accounting 104, Federal and California Taxes	4
Accounting 108, Tax Practices and Procedures	3
Accounting 124, Computerized Income Tax Preparation	1
Select this course: Accounting 105, Intermediate Federal and California Taxes (4) or select these TWO courses: Accounting 113, Intermediate Income Taxes—Corporations (2) Accounting 114, Intermediate Income Taxes—Partnerships and LLCs (2)	4
Total	16

Microsoft Dynamics for Financial Accounting Certificate (Untranscribed) ([sac.acctdf.cert](#))

Requirements for the certificate:

Take all of the following courses:	Units
Accounting 101, Financial Accounting	4
Accounting 170, Microsoft Dynamics for Financial Accounting – Core Modules	4
Accounting 171, Microsoft Dynamics for Financial Accounting – Operations and Analysis	4
Business 150, Introduction to Information Systems and Applications	3
Total	15

Microsoft Dynamics for Project Management and Business Planning Certificate (Untranscribed) ([sac.acctdm.cert](#))

Requirements for the certificate:

Course	Units
Accounting 102, Managerial Accounting	4
Accounting 173, Microsoft Dynamics for Managerial Accounting	4
Accounting 174, Microsoft Dynamics for Business Planning and Management	4
Business 150, Introduction to Information Systems and Applications	3
Total	15

AMERICAN SIGN LANGUAGE

American Sign Language Certificate (Transcribed) ([sac.sign.ca](#))

Certificate of competency in American Sign Language is offered as preparation for developing linguistic competency in ASL and readiness for entering a formal Interpreter Training Program or as an added skill as a direct service provider: instructional assistant, social work, speech pathology, etc. The certificate indicates skill in the use of ASL for personal communication and an introductory awareness of Sign Language Interpreting and other professions working within the Deaf community.

Requirements for the certificate:

Course	Units
Sign Language 110, American Sign Language I	3
Sign Language 111, American Sign Language II	3
Sign Language 112, American Sign Language III	3
Sign Language 113, Introduction to Interpreting for the Deaf	3
Sign Language 114, Classifier, Fingerspelling and Numbers	3
Sign Language 116, Perspective on Deafness	3
Special Services 205, Exceptionality and Special Needs in Human Development (Same as Human Development 205)	3
Human Development 107, Child Growth and Development —OR—	3
Psychology 157, Introduction to Child Psychology	3
Total	24

Recommended electives: Speech-Language Pathology Assistant 160.

Administration of Justice

(See *Criminal Justice*)

ANTHROPOLOGY

Option 1

Anthropology Degree ([sac.anth.aa](#))

The associate degree curriculum in anthropology is designed as a program of basic courses for students considering professional careers as archeologists, ethnographers, linguists, physical anthropologists; for those preparing to become social science teachers in elementary or secondary schools; for such diverse fields as psychology, medicine, law, political science, international relations, economics, or history; and for individuals who plan public service careers in social work, health and welfare programs, foreign service. Students should consult with faculty members for advice in selecting course offerings best suited to the individual's particular career objectives. The associate of arts degree prepares the student to move into a curriculum at a four-year institution leading to a baccalaureate degree in these careers. Consult a counselor for information about course requirements for specific universities.

Major requirements for the associate in arts degree:

Course	Units
Anthropology 100, Introduction to Cultural Anthropology —OR—	3
Anthropology 100H, Honors Introduction to Cultural Anthropology	3
Anthropology 101, Introduction to Physical Anthropology	3
Anthropology 103, Introduction to Archeology	3
*Anthropology 104, Language and Culture —OR—	3
*Anthropology 104H, Honors Language and Culture	3



In addition to the above requirements, an additional minimum of 6 units for the Anthropology Major may be taken from Category A or Category B below.

Category A

If your emphasis is cultural anthropology consider category A:

Anthropology 105, Ancient Mesoamerican Civilization	3
Anthropology 108, Religion, Magic, and Witchcraft	3
**Anthropology 125, Native Americans in the U.S.	3
Economics 120, Macroeconomics	3
Ethnic Studies 101, Introduction to Ethnic Studies	3
—OR—	
Ethnic Studies 101H, Honors Introduction to Ethnic Studies	3
Geography 100, World Regional Geography	3
—OR—	
Geography 100H, Honors World Regional Geography	3
Geography 102, Cultural Geography	3
—OR—	
Geography 102H, Honors Cultural Geography	3
History 101, World Civilizations to the 16th Century	3
—OR—	
History 101H, Honors World Civilizations to the 16th Century	3
Interdisciplinary Studies 117H, Honors Introduction to Global Studies	3
Psychology 100, Introduction to Psychology	3
—OR—	
Psychology 100H, Honors Introduction to Psychology	3
Sociology 100, Introduction to Sociology	3
—OR—	
Sociology 100H, Honors Introduction to Sociology	3
Women's Studies 101, Introduction to Women's Studies	3

Category B

If your emphasis is physical anthropology consider category B:

Anthropology 101L, Physical Anthropology Laboratory	1
Anthropology 107, Introduction to Forensic Anthropology	3
Biology 109, Fundamentals of Biology	3
—OR—	
Biology 109H, Honors Fundamentals of Biology	3
Biology 109L, Fundamentals of Biology Laboratory	1
Biology 127, Ecology	1
Biology 149, Human Anatomy and Physiology	4
Biology 177, Human Genetics	3
Biology 211, Cellular and Molecular Biology	5
Biology 212, Animal Diversity and Ecology	5
Geology 101, Introduction to Geology	3
Geology 101L, Introduction to Geology Laboratory	1

It is strongly recommended that anthropology majors transferring to the CSU or UC system complete Foreign Language courses at the 201 and 202 level, and/or Mathematics 219/219H/Social Sciences 219/219H.

*Note: Anthropology 104 or 104H are alternately listed as English 104 or 104H.

**Note: Anthropology 105 and Anthropology 125 are alternately listed as History 105 and History 125.

Option 2

Associate in Arts in Anthropology for Transfer Degree (sac.anth.aat)

This degree is pending approval from the California Community College Chancellor's Office. Please consult a SAC counselor and the SAC college website for the latest information.

ARCHITECTURE

(See *Engineering-Drafting and Design Program Option II*)

ART

Option 1

Art Degree (sac.art.aa)

The associate degree curriculum in art provides students with an opportunity for individual creative stimulus and development. Completion of the associate in arts degree also prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree or into a professional art school. Please consult a SAC counselor for information about course requirements for particular four-year institutions. Careers in fine arts include art education, interior design, gallery operation, art merchandising, studio artist, illustration, art criticism, computer graphics, and animation and related fields.

Major requirements for the associate in arts degree:

Course	Units
Art 100, Introduction to Art Concepts	3
—OR—	
Art 100H, Honors Introduction to Art Concepts	3
Art 101, Survey of Western Art History I	3
Art 102, Survey of Western Art History II	3
Art 105, History of Modern Art	3
Art 110, Two-Dimensional Design	3
Art 111, Three-Dimensional Design	3
Art 124, Gallery Production	2
Art 130, Introduction to Drawing	3
Art 131, Beginning Life Drawing	3
Art 141, Beginning Painting	3
Electives	3
Total	32

Electives are to be selected from the following:

Recommended electives: Art 009, 010, 103, 104, 106, 108, 121A, 121B, 122, 132A, 132B, 140A, 140B, 143, 150, 154, 155, 156, 157, 158, 159A, 159B, 164, 165, 166, 167, 182, 183, 188A, 188B, 195, 196A, 198, 230, 231, 232, 233, 234 or 234H, 240, 241, 242, 243, 250, 251, 252, 253, 282, 283, 298.

Option 2(A)

Associate in Arts in Art History for Transfer (sac.arth.aat)

The Associate in Arts in Art History for Transfer (A.A.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in Art History. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, (admission is not guaranteed to a specific major or campus), along with priority admission consideration to the local CSU, Fullerton, in the Art History major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Art History, students will be able to recognize, distinguish and categorize major art achievements and their relationship to history and culture through formal analysis of art works, comparison and contrast of artistic styles, and general assessment of the cultural diversity of human artistic expressions and their meanings around the world in different eras by means of both oral and written assignments such as oral presentations, written essays, and general exams.



Courses	Units
Required Core (9 units)	
Art 101, Survey of Western Art History I: Prehistory through the Middle Ages	3
Art 102, Survey of Western Art History II: Renaissance through the Twentieth Century	3
Art 130, Introduction to Drawing	3
List A: Select One Course (3 units)	
Art 103, African Art History (3)	3
Art 104, Mexican and Chicano Art History (3)	
Art 106, Asian Art History (3)	
List B: Select One Course (3 units)	
Art 110, Two-Dimensional Design (3)	3
Art 111, Three-Dimensional Design (3)	
Art 131, Beginning Life Drawing (3)	
Art 151, Ceramics-Introductory Level (3)	
Art 195, Introduction to Digital Media Arts (3)	
Photography 180, Beginning Photography (3)	
List C: Select One Course (3 units)	
Any course from List A or B not already used.	
Art 105, History of Modern Art (3)	3
Art 108, Contemporary Art History: Art Since Mid-Century (3)	
History 101, World Civilizations to the 16th Century (3)	
—OR—	
History 101H, Honors World Civilizations to the 16th Century (3)	
History 102, World Civilizations Since the 16th Century (3)	
—OR—	
History 102H, Honors World Civilizations Since the 16th Century (3)	
Interdisciplinary Studies 121, Humanities Through the Arts (3)	
Philosophy 112, World Religions (3)	
Total Units	18

Option 2(B) Associate in Arts in Studio Arts for Transfer ([sac.start.aat](#))

The Associate in Arts in Studio Arts for Transfer (A.A.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in Studio Arts and then into careers in fine arts include art education, interior design, gallery operation, art merchandising, studio artist, illustration, art criticism, computer graphics and animation, and related fields. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, (admission is not guaranteed to a specific major or campus), along with priority admission consideration to the local CSU in the Studio Arts major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Studio Arts, students will be able to recognize specific styles of art, apply vocabulary pertinent to the discussion of art both in and out of the classroom, and demonstrate an understanding of the technical processes of various art media by developing an art portfolio that demonstrates a broad knowledge of subject matter. Furthermore, students will be able to demonstrate an understanding of the principles of design and the elements of art, as well as identify relationships between art and society in which it is created, and apply developed criteria for viewing and judging art.

Courses	Units
Required Core (12 units)	
Art 102, Survey of Western Art History II: Renaissance through the Twentieth Century	3
Art 110, Two-Dimensional Design	3
Art 111, Three-Dimensional Design	3
Art 130, Introduction to Drawing	3
List A: Select One Course (3 units)	
Art 101, Survey of Western Art History I: Prehistory through the Middle Ages (3)	3
Art 103, African Art History (3)	
Art 104, Mexican and Chicano Art History (3)	
Art 105, History of Modern Art (3)	
Art 106, Asian Art History (3)	
List B: Select Three Courses (9 units)	
Art 131, Beginning Life Drawing (3)	9
—OR—	
Art 230, Intermediate Drawing (3)	
Art 141, Beginning Painting (3)	
Art 151, Ceramics-Introductory Level (3)	
Art 182, Introduction to Jewelry (3)	
Art 195, Introduction to Digital Media Arts (3)	
Photography 180, Beginning Photography (3)	
Total Units	

Crafts Option Certificate

The certificate program in crafts offers courses that provide the aesthetic, technical knowledge and special skills necessary to design and produce hand crafted objects. Whether the interest is in exhibiting crafts as an art form or producing work with more commercial applications, the program provides for study in two areas, jewelry/crafts and ceramics/crafts. This program is primarily designed to prepare art students as freelance artists/craftsmen.

Crafts Certificate A-Jewelry Emphasis Certificate (Transcripted) ([sac.artjw.ca](#))

Course	Units
Art 130, Introduction to Drawing	3
Art 182, Introduction to Jewelry	3
Art 282, Jewelry	3
Art 283, Advanced Jewelry	3
Art 284, Introduction to Stone Setting-Jewelry	2
Art 285, Introduction to Enameling-Jewelry	2
Total	16

Crafts Certificate D-Ceramics Emphasis Certificate (Untranscripted) ([sac.artce.cert](#))

Course	Units
Art 100, Introduction to Art Concepts	3
Art 111, Three-Dimensional Design	3
Art 251, Advanced Throwing and Hand Building	3
Art 252, Advanced Study Process in Ceramics with Non-Traditional Media	3
Art 253, Electric Kiln Ceramics	3
Total	15



Art-Graphic Design Degree (sac.artgd.aa)

The associate degree curriculum in graphic design prepares students for entry into the broad field of visual communication with an emphasis on the development of problem solving in the practical application of graphic design. These applications include design for the print media, advertising, architectural and environmental graphics, packaging, logos, corporate identity, the web and other electronic media, using both digital media tools as well as traditional hand skills.

Degree Program A emphasizes skills for entry level employment in advertising agencies, print houses, design studios, freelance work, and related businesses. It also prepares students to apply to a four-year institution leading to a baccalaureate degree or into a professional art school with a graphic design emphasis. Degree Program B is specifically geared for students to transfer to a state university leading to a baccalaureate degree with more intense study of graphic design skills and applications. Completion of this associate degree also provides for entry into a profession in a variety of areas: e.g., advertising agency, printing house, design studio, freelance work and related businesses. Students planning for transfer should be aware that each university has unique degree requirements. Please consult a SAC counselor for information about course requirements for particular four-year institutions.

Major requirements for the associate in arts or science degree in Graphic Design:

Degree Program A-Professional emphasis or transfer preparation to art school

Course	Units
Art 100, Introduction to Art Concepts	3
—OR—	
Art 100H, Honors Introduction to Art Concepts	
Art 105, History of Modern Art	3
Art 110, Two-Dimensional Design	3
Art 111, Three-Dimensional Design	3
Art 121A, Fundamentals of Typography	3
Art 121B, Advanced Typography	3
Art 122, Graphic Design I	3
Art 130, Introduction to Drawing	3
Art 168, Digital Media: Portfolio and Business Strategies	3
Photography 180, Beginning Photography	3
Electives	3
Total	33

Plus a minimum of 3 units from the following electives: Art 009, 010, 131, 140A, 195, 198, 221, 230, 298; Communications & Media Studies 123; Television/Video Communications 105 or 105H.

Degree Program B-Transfer to State University

Course	Units
Art 100, Introduction to Art Concepts	3
—OR—	
Art 100H, Honors Introduction to Art Concepts	
Art 101, Survey of Western Art History I	3
Art 102, Survey of Western Art History II	3
Art 105, History of Modern Art	3
Art 110, Two-Dimensional Design	3
Art 111, Three-Dimensional Design	3
Art 121A, Fundamentals of Typography	3
Art 121B, Advanced Typography	3
Art 130, Introduction to Drawing	3
Art 131, Beginning Life Drawing	3
Art 141, Beginning Painting	3
Art 168, Digital Media: Portfolio and Business Strategies	3
Electives	3
Total	39

Plus a minimum of 3 units from the following electives: Art 009, 010, 122, 123, 132A, 140A, 195, 198, 221, 230, 298; Communications & Media Studies 123; Photography 180.

Art 3D Modeling and Animation Certificate

The certificate program in 3D animation addresses the fundamental requirements that 3D artists are expected to know for entry-level positions in film, broadcast television, publishing, and video game companies, as well as product, industrial and architectural design. The course work gives training in using 3D animation and modeling techniques for animated features, live-action special effects, and television commercials. Employment opportunities exist with small and large companies serving a broad spectrum of clientele in the delivery of still, animated, and interactive presentations for print, video, and the internet. The certificate program is designed to develop the core technical skills required for these vast arenas of applications, as well as to increase the student's visual communication vocabulary and to raise awareness of the distinctive and evolving opportunities available in 3D.

Requirements for the certificate:

3D Modeling and Animation A-Art Emphasis Certificate (Transcripted) (sac.art3a.ca)

Course	Units
Art 110, Two-Dimensional Design	3
Art 130, Introduction to Drawing	3
Art 162, Digital Design with Photoshop-I	3
Art 166, Creating Realism with Textures and Lights	3
Art 167, 3D Commercial Applications	3
Art 185, Fundamentals of Cartooning and Storyboarding	3
Art 195, Introduction to Digital Media Arts	3
Art 196A, 3D Modeling	5
Art 197A, 3D Animation	5
Total	31

3D Animation B-Television/Video Communications Emphasis Certificate (Transcripted) (sac.art3b.ca)

Course	Units
Television/Video Communications 180, Electronic Graphics for Television	1.5
Television/Video Communications 181, 3D Modeling	5
Television/Video Communications 185, 3D Animation	5
Television/Video Communications 187, Electronic Graphics for Television, Advanced Techniques	2
Art 110, Two-Dimensional Design	3
Art 166, Creating Realism with Textures and Lights	3
Art 167, 3D Commercial Applications	3
Art 195, Introduction to Digital Media Arts	3
Total	25.5

3D Modeling and Animation C-Video Game and Interactive Media Art Emphasis Certificate (Transcripted) (sac.art3c.ca)

Course	Units
Art 164, Web Design with Flash	3
Art 166, Creating Realism with Textures and Lights	3
Art 167, 3D Commercial Applications	3
Art 180, Video Game and Interactive Media Art	3
Art 185, Fundamentals of Cartooning and Storyboarding	3
Art 195, Introduction to Digital Media Arts	3
Art 196A, 3D Modeling	5
Art 197A, 3D Animation	5
Total	28



3-D Modeling and Animation D-Previsualization Emphasis Certificate (Transcripted) (sac.art3d.ca)

Course	Units
Art 100, Introduction to Art Concepts	
Art 130, Introduction to Drawing	3
Art 162, Digital Design with Photoshop-I	3
Art 166, Creating Realism with Textures and Lights	3
Art 167, 3D Commercial Applications	3
Art 195, Introduction to Digital Media Arts	3
Art 196A, 3D Modeling	5
Art 197A, 3D Animation	5
Total	28

Art-Digital Media Arts Degree (sac.artdm.aa)

The associate degree program in Art-Digital Media Arts merges fine arts and technical knowledge required to develop skills necessary in two areas: graphic design and web design. Completion of the associate degree prepares students to move into curriculum at a four-year institution leading to a baccalaureate degree or into a professional art school with an emphasis in digital media art. Please consult a SAC counselor for information about course requirements for particular four-year institutions. Completion of the associate degree also provides for entry into a profession in a variety of areas: advertising agency, printing business, design studio, web production, freelance designer or related fields.

Major requirements for the associate in arts in Digital Media Arts:

Courses	Units
Art 100, Introduction to Art Concepts —OR—	3
Art 100H, Honors Introduction to Art Concepts	3
Art 110, Two-Dimensional Design	3
Art 121A, Fundamentals of Typography	3
Art 122, Graphic Design I	3
Art 129, Computer Science 155, Graphic Design Concepts for the Web	3
Art 130, Introduction to Drawing	3
Art 162, Digital Design with Photoshop-I	3
Art 168, Digital Media: Portfolio and Business Strategies	3
Art 191A, Digital Publishing with InDesign	3
Art 192A, Digital Illustration with Illustrator	3
Art 195, Introduction to Digital Media Arts	3
Electives	3
Total	36

Electives must be chosen from the following courses: Art 111, 121B, 131, 141, 196A, 197A, 198, 221, 230, 298; Computer Science 100; Photography 180, 191.

Art Digital Media Arts Certificate

The certificate programs in digital arts reflect the rapidly changing industry of the advertising/graphic design field in relation to graphic design for printed media, the impact of web design on e-commerce, and the integration of motion graphics into this field. The programs are designed with a combination of courses from fine art and digital media to develop technical skills and creativity in the areas of digital imaging, electronic page layout, graphic principles of web design, and interactive design for multimedia. Graduates of these programs will find entry into the profession at various levels with employment opportunities in the fields of advertising, graphic design, printing industry, and e-commerce.

Requirements for the certificate:

Core courses	Units
Art 100, Introduction to Art Concepts —OR—	3
Art 100H, Honors Introduction to Art Concepts	3
Art 110, Two-Dimensional Design	3
Art 162, Digital Design with Photoshop-I	3
Art 195, Introduction to Digital Media Arts	3
Total	12

Digital Media Arts A-Graphic Design Emphasis Certificate (Transcripted) (sac.artdg.ca)

Course	Units
Core courses (See above)	12
Art 121A, Fundamentals of Typography	3
Art 122, Graphic Design I	3
Art 130, Introduction to Drawing	3
Art 168, Digital Media: Portfolio and Business Strategies	3
Art 191A, Digital Publishing with InDesign	3
Art 192A, Digital Illustration with Illustrator	3
Total	30

Digital Media Arts B-Web Design Emphasis Certificate (Transcripted) (sac.artdw.ca)

Course	Units
Core courses (See above)	12
Art 121A, Fundamentals of Typography	3
Art 122, Graphic Design I	3
Art 129, Graphic Design Concepts for the Web	3
Art 164, Web Design with Flash	3
Art 168, Digital Media: Portfolio and Business Strategies	3
Art 192A, Digital Illustration with Illustrator	3
Total	30

AUTOMOTIVE TECHNOLOGY

Automotive Technology Degree (sac.auto.as)

In addition to the general education requirements, the associate degree curriculum in automotive technology is designed to prepare the student for employment in automotive service and repair. Technical instruction includes lecture and lab experiences in a variety of subjects which the student may select according to his/her interests. Employment opportunities are available in civil service, service stations, independent garages and dealerships, both domestic and foreign.

**Major requirements for the associate in science degree:**

Course	Units
Automotive Technology 002, Essentials (3 units) —OR—	3-4
Automotive Technology 006, Automotive Maintenance (4 units)	
Plus 25 units selected from the following:	25
Automotive Technology 008, Oxyacetylene-Arc Welding (3)	
Automotive Technology 022, Electronics Fundamentals (5)	
Automotive Technology 024, Electrical Systems (5)	
Automotive Technology 025, A-6 Alternative Course— Electrical Systems (2)	
Automotive Technology 032, Tune-Up (5)	
Automotive Technology 033, A-8 Alternative Course— Engine Performance (2)	
Automotive Technology 043, Automatic Transmission Service (4)	
Automotive Technology 044, Power Train Service (4)	
Automotive Technology 053, Brakes (4.5)	
Automotive Technology 054, Front Ends (4.5)	
Automotive Technology 062, Air Conditioning and Heating (3)	
Automotive Technology 072, General Automotive Engine Service (4.5)	
Automotive Technology 076, Engine Repair (4.5)	
Automotive Technology 080, Computer Controls (3)	
Automotive Technology 081, Fuel Injection Systems (3)	
Automotive Technology 082, Automotive Computer Sensors (3)	
Automotive Technology 083, Automotive Lab Scopes (3)	
Automotive Technology 084, OBD II (3)	
Automotive Technology 085, Basic Clean Air Car Course (5)	
Automotive Technology 086, Advanced Clean Air Car Course (2)	
Automotive Technology 087, L-1 Alternative Course— Advanced Engine (2)	
Total	28-29

Advanced Engine Performance Option Certificate (Transcripted) (sac.autae.ca)

The certificate curriculum in advanced engine performance is designed to prepare students for entry into the specialized field of diagnosing, testing, and repairing computer controlled ignition, fuel and emission systems. It is recommended that students complete the Engine Performance and Electrical Option Certificate or have an equivalent trade experience.

Major requirements for the certificate:

Course	Units
Automotive Technology 080, Computer Controls	3
Automotive Technology 081, Fuel Injection Systems	3
Automotive Technology 082, Automotive Computer Sensors	3
Automotive Technology 083, Automotive Lab Scopes	3
Automotive Technology 084, OBD-II	3
Total	15

Chassis Service Option Certificate (Transcripted) (sac.autcs.ca)

The certificate curriculum in chassis service is designed to prepare the student for entry into the specialized field of brake, front suspension and steering service on both import and domestic vehicles.

Major requirements for the certificate:

Course	Units
Automotive Technology 002, Essentials (3 units) —OR—	3-4
Automotive Technology 006, Automotive Maintenance (4 units)	
Automotive Technology 053, Brakes	4.5
Automotive Technology 054, Front Ends	4.5
Automotive Technology 022, Electronic Fundamentals	5
Total	17-18

Drive Train Service Option Certificate (Transcripted) (sac.autdt.ca)

The certificate curriculum in drive train service is designed to prepare the student for entry into the specialized field of standard and automatic transmissions, driveline, and differential service and repair on both import and domestic vehicles.

Major requirements for the associate degree and certificate:

Course	Units
Automotive Technology 002, Essentials (3 units) —OR—	3-4
Automotive Technology 006, Automotive Maintenance (4 units)	
Automotive Technology 043, Automatic Transmission Service	4
Automotive Technology 044, Power Train Service	4
Automotive Technology 022, Electronic Fundamentals	5
Total	16-17

Engine Performance and Electrical Option Certificate (Transcripted) (sac.autep.ca)

The certificate curriculum in tune-up and electrical service engine performance is designed to prepare students for entry into the specialized field of domestic and foreign automotive tune-up, electrical, and air conditioning service and repair. Advances in electronics have increased the demand for technical skills and knowledge in this specialized area.

Major requirements for the certificate:

Course	Units
Automotive Technology 002, Essentials (3 units) —OR—	3-4
Automotive Technology 006, Automotive Maintenance (4 units)	
Automotive Technology 022, Electronic Fundamentals	5
Automotive Technology 024, Electrical Systems	5
Automotive Technology 032, Tune-Up	5
Automotive Technology 062, Air Conditioning and Heating	3
Total	21-22

Engine Service Option Certificate (Transcripted) (sac.antes.ca)

The certificate curriculum in chassis service is designed to prepare students as engine service helpers and apprentices. Course content includes how to recondition valves, seals and cylinder walls, assembly of short blocks, and repair of cracks in heads and blocks. The program will also enable those already employed in the field to upgrade their skills in engine machining and overhaul.

Requirements for the certificate:

Course	Units
Automotive Technology 002, Essentials (3 units) —OR—	3-4
Automotive Technology 006, Automotive Maintenance (4 units)	
Automotive Technology 072, General Automotive Engine Service	4.5
Automotive Technology 076, Engine Repair	4.5
Automotive Technology 022, Electronic Fundamentals	5
Total	17-18



BIOLOGY

Biological Science Degree (sac.biol.as)

The associate degree in biological science prepares students for pre-professional careers and a curriculum in a four-year institution leading to a baccalaureate degree in such areas as microbiology, botany, zoology, molecular biology, and teaching. The biologist is also prepared to enter graduate or professional programs of specialized study such as medicine, dentistry, medical technology, osteopathy, veterinary medicine, agriculture, forestry, optometry, cell biology, molecular biology, and dental hygiene. See counseling for transfer requirements.

Major requirements for the associate in arts or science degree:

Course	Units
Biology 211, Cellular and Molecular Biology	5
Biology 212, Animal Diversity and Ecology	5
Biology 214, Plant Diversity and Evolution	5
—OR—	
Biology 290, Biochemistry and Molecular Biology	5
Chemistry 229, General Chemistry and Qualitative Analysis	5

Select a minimum of 3 units from the following electives:

Biology 111, Marine Biology (4)	4
Biology 127, Ecology (1)	1
Biology 128, Natural History of the California Coast (1)	1
Biology 132, Natural History of Death Valley (1)	1
Biology 133, Desert Biology (1)	1
Biology 139, Health Microbiology (4)	4
Biology 149, Human Anatomy and Physiology (4)	4
Biology 169, Natural History of the Sierra Nevadas (1-3)	1-3
Biology 177, Human Genetics (3)	3
Biology 200, Environment of Man (3)	3
Biology 217, Pathophysiology (2)	2
Biology 229, General Microbiology (5)	5
Biology 239, General Human Anatomy (4)	4
Biology 249, Human Physiology (4)	4
Biology 259, Environmental Biology (4)	4
Biology 129, Ecology of Southern California (1)	1
Biology 131, Natural History of the Southwest (3)	3
Biology 134, Natural History of the Sonoran/Colorado Desert (1)	1
Biology 135, Natural History of the Mojave Desert (1)	1
Biology 170, Environmental Challenge of the 21st Century (1)	1
Total	23

BIOTECHNOLOGY

Biotechnology Lab Assistant Certificate (Untranscribed) (sac.biola.cert)

This certificate program is designed to prepare students for entry level jobs as laboratory assistants in biotechnology and related fields.

Required Courses	Units
Biology 190, Introduction to Biotechnology	3
Biology 191, Biotech A: Basic Skills	4
Chemistry 209, Introductory Chemistry	4
Total	11

BLACK STUDIES

Black Studies Degree (sac.blst.aa)

The associate degree curriculum in black studies emphasizes the history, development, and role of black culture. Completion of the degree program prepares students to pursue a major leading to a baccalaureate degree.

Requirements for the associate in arts degree:

Course	Units
Art 103, African Art History	3
Black Studies 101, Introduction to Black Studies	3
Ethnic Studies 101, Introduction to Ethnic Studies	3
—OR—	
Ethnic Studies 101H, Honors Introduction to Ethnic Studies	
History 123, History of Black People in the United States	3
History 146, Black People in Twentieth Century America	3
Music 103, Jazz in America	3

A minimum of six (6) units (but, no more than three (3) units from any one discipline) taken from the following list:

Anthropology 100 or 100H, 104 or 104H, 105, 125; Chicano Studies 101; Dance 105, 112; English 104 or 104H, 245; History 101 or 101H, 102 or 102H, 181; Human Development 221; Music 102; Sociology 100 or 100H.

Total 24

BUSINESS

Option 1

Business Administration Degree (sac.bus.as)

The associate degree curriculum in business administration enables students to move into a curriculum at a four-year institution leading to a baccalaureate degree. Career opportunities exist in many areas of business administration such as accounting, financial planning and analysis, financial service specialties, management, marketing and sales, production and logistics, and systems and technology development.

Core courses for the associate in arts or science degree:

Course	Units
Accounting 101, Financial Accounting	4
Accounting 102, Managerial Accounting	4
Business 150, Introduction to Information Systems and Applications	3
Business 222, Business Writing	3
Economics 120, Principles/Macro	3
Economics 121, Principles/Micro	3

Select one of the following 3

Business 101, Business Law* (see note) (3)

—OR—

Business 105, Legal Environment of Business* (3)

Select one of the following courses** (see note): 3-4

Business 100, Fundamentals of Business (3)

Business 120, Principles of Management (3)

Business 125, Introduction to International Business (3)

Business 140, Principles of Finance (3)

Marketing 113, Principles of Marketing (3)

Management 120, Principles of Management (3)

Mathematics 150, Calculus for Biological, Management and Social Sciences (4)

Total 26-27

*Students planning for university transfer should be aware that some universities only accept Business 101 for the transfer major (e.g. California State University, Long Beach) while others only accept Business 105 (e.g. California State University, Fullerton) for the transfer major. Please consult the Transfer Planning Guide and meet with a counselor for information about specific universities.

**Students planning for university transfer should be aware that California State University, Fullerton and many other universities require Mathematics 150 for the Business Administration degree. Please consult the Transfer Planning Guide and meet with a counselor for information about specific universities.



Numerous California State University campuses and private colleges and universities offer baccalaureate degrees in Business Administration. In the University of California system, UC Berkeley and UC Riverside offer this degree. Consult the Transfer Planning Guide and meet with a counselor for information about specific programs and transfer requirements.

Option 2
Associate in Science in Business Administration for Transfer (sac.bus.ast)

The Associate in Science in Business Administration for Transfer (A.S.-T) prepares students to move into the CSU system leading to a baccalaureate degree in Business Administration. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.S.-T degree also provides guaranteed admission with junior status to the CSU system although does not guarantee acceptance to a particular campus or major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.S.-T in Business Administration, students will have a general understanding of business fundamentals, including the areas of accounting, economics, and computer information systems. In addition, they will have an understanding of the legal environment of business, and will have sufficient understanding of mathematical concepts to enable them to successfully pursue a baccalaureate degree. The A.S.-T degree in Business Administration is also appropriate for students whose vocational plans include careers in business fields such as accounting, computer information systems, finance, management, marketing and other business fields.

Courses	Units
Required Core (17 units)	
Accounting 101, Financial Accounting	4
Accounting 102, Managerial Accounting	4
Economics 120, Principles/Macro	3
Economics 121, Principles/Micro	3
Business 101, Business Law	3
—OR—	
Business 105, Legal Environment of Business	3
List A: Select one of the following courses. (4 units)	
Mathematics 145, Finite Mathematics (4)	
Mathematics 150, Calculus for Biological, Management and Social Sciences (4)	
—OR—	
Mathematics 180, Analytic Geometry and Calculus (4)	4
—OR—	
Mathematics 180H, Honors Analytic Geometry and Calculus (4)	
Mathematics 219, Statistics and Probability (4)	
—OR—	
Mathematics 219H, Honors Statistics and Probability (4)	
—OR—	
Social Science 219, Statistics and Probability (4)	
—OR—	
Social Science 219H, Honors Statistics and Probability (4)	
List B: Select two courses from the list below or from any course from List A that has not already been used. (6 units)	
Business 150, Introduction to Information Systems and Applications (3)	6
—OR—	
Computer Science 100, The Computer and Society (3)	
Business 100, Fundamentals of Business (3)	
—OR—	
Business 222, Business Writing (3)	
Total Units	27

BUSINESS APPLICATIONS AND TECHNOLOGY

General Business Applications and Technology Degree (sac.ba.aa)

This degree program is designed to prepare students for employment as an administrative staff for any size company from small business offices to large corporate organizations. Training includes knowledge and skill development to meet the demands of current business standards and technology, office procedures, and office administration.

Major requirements for the associate in arts or science degree:

Course	Units
Business Applications 017, Business Writing Skills	3
Business Applications 018, Office Procedures	3
—OR—	
Business Applications 120, Administrative Office Management	
Business Applications 035, Computer Fundamentals	1.5
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I	1
Business Applications 147, Introduction to Windows	1.5
Business Applications 179, Introduction to Microsoft Office	4
Business 080, Business Mathematics	3

Select 6 units from the following courses: 6

Business Applications 160, Microsoft Publisher (3)	
Business Applications 180, Advanced Microsoft Office (3)	
Business Applications 183, Microsoft Word (3)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Excel Application Projects (1.5)	
Business Applications 190, Microsoft PowerPoint (1.5)	
Business Applications 191, PowerPoint – Application Projects (1.5)	

Select 3 units from the following elective courses: 3

Business Applications 043, Microsoft Certified Application Specialist Preparation (0.5)	
Business Applications 066, Microsoft Outlook (1.5)	
Business Applications 125, Microsoft Word Basics (1.5)	
Business Applications 163, Adobe Acrobat (3)	
Business Applications 164, Adobe Photoshop (3)	
Business Applications 170, Adobe InDesign (3)	
Business Applications 177, Microsoft OneNote (1.5)	
Business Applications 184, Advanced Microsoft Word for the Workplace (3)	
Total	26

General Business Applications and Technology Certificate (Transcripted) (sac.ba.ca)

This certificate program is designed to prepare students for employment as an administrative staff for any sized company from small business offices to large corporate organizations. Training includes knowledge and skill development to meet the demands of current business standards and technology, office procedures and office administration.

Requirements for the certificate:

Course	Units
Business Applications 018, Office Procedures	3
—OR—	
Business Applications 120, Administrative Office Management	
Business Applications 035, Computer Fundamentals	1.5
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I	1
Business Applications 147, Introduction to Windows	1.5
Business Applications 179, Introduction to Microsoft Office	4
Business Applications 183, Microsoft Word	3
Business 080, Business Mathematics	3

**Select 3 units from the following elective courses:**

Business Applications 017, Business Writing Skills (3)	
Business Applications 043, Microsoft Certified Application Specialist Preparation (0.5)	
Business Applications 049, Introduction to Microsoft Access (1.5)	
Business Applications 066, Microsoft Outlook (1.5)	
Business Applications 148, Advanced Windows (1.5)	
Business Applications 163, Adobe Acrobat (3)	
Business Applications 177, Microsoft OneNote (1.5)	
Business Applications 180, Advanced Microsoft Office (3)	
Business Applications 184, Advanced Microsoft Word for the Workplace (3)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Excel Application Projects (1.5)	
Business Applications 190, Microsoft PowerPoint (1.5)	
Business Applications 191, PowerPoint-Application Projects (1.5)	
Total	20

Digital Publishing Degree (sac.badp.aa)

The Digital Publishing program is designed to professionally train students in all aspects of designing and publishing print and web business projects based on current business industry standards and technology. Instruction includes digital graphics, web design, page layout, typography, export file formats, proper file setup, integration of software tools, and professional design guidelines.

Major requirements for the associate in arts or science degree:

Course	Units
Business Applications 017, Business Writing Skills	3
Business Applications 035, Computer Fundamentals	1.5
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I	1
Business Applications 018, Office Procedures	3
—OR—	
Business Applications 120, Administrative Office Management	
Business Applications 147, Introduction to Windows	1.5
Business Applications 164, Adobe Photoshop	3
Business Applications 166, Adobe Illustrator	3
Business Applications 169, Adobe Dreamweaver	3
Business Applications 170, Adobe InDesign	3
Business Applications 179, Introduction to Microsoft Office	4
Business 080, Business Mathematics	3

Select 4.5 units from the following elective courses:

Business Applications 066, Microsoft Outlook (1.5)	
Business Applications 147, Introduction to Windows (1.5)	
Business Applications 148, Advanced Windows (1.5)	
Business Applications 160, Microsoft Publisher (3)	
Business Applications 163, Adobe Acrobat (3)	
Business Applications 173, Adobe Flash (3)	
Total	33.5

3

Digital Publishing Certificate (Transcribed) (sac.badp.ca)

The Digital Publishing program is designed to professionally train students in all aspects of designing and publishing print and web business projects based on current business industry standards and technology. Instruction includes digital graphics, web design, page layout, typography, export file formats, proper file setup, integration of software tools, and professional design guidelines.

Major requirements for the certificate:

Course	Units
Business Applications 163, Adobe Acrobat	3
Business Applications 164, Adobe Photoshop	3
Business Applications 166, Adobe Illustrator	3
Business Applications 169, Adobe Dreamweaver	3
Business Applications 170, Adobe InDesign	3

Select 4.5 units from the following elective courses:

Business Applications 035, Computer Fundamentals (1.5)	
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I (1)	
Business Applications 066, Microsoft Outlook (1.5)	
Business Applications 147, Introduction to Windows (1.5)	
Business Applications 160, Microsoft Publisher (3)	
Business Applications 173, Adobe Flash (3)	
Total	19.5

Microsoft Office Professional Degree (sac.bamso.aa)

The Microsoft Office Professional degree program is designed to provide students training in computer skills based on current business industry standards and technology for any department within a company.

Requirements for the associate in arts or science degree:

Course	Units
Business Applications 017, Business Writing Skills	3
Business Applications 018, Office Procedures	3
—OR—	
Business Applications 120, Administrative Office Management	
Business Applications 035, Computer Fundamentals	1.5
Business Applications 043, Microsoft Certified Application Specialist Preparation	0.5
Business Applications 049, Introduction to Microsoft Access	1.5
Business Applications 066, Microsoft Outlook	1.5
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I	1
Business Applications 147, Introduction to Windows	1.5
Business Applications 179, Introduction to Microsoft Office	4
Business Applications 180, Advanced Microsoft Office	3
Business Applications 189, Excel Application Projects	1.5
Business Applications 191, PowerPoint – Application Projects	1.5
Business 080, Business Mathematics	3

Select 6 units from the following elective courses:

Business Applications 148, Advanced Windows (1.5)	
Business Applications 160, Microsoft Publisher (3)	
Business Applications 163, Adobe Acrobat (3)	
Business Applications 164, Adobe Photoshop (3)	
Business Applications 169, Adobe Dreamweaver (3)	
Business Applications 177, Microsoft OneNote 1.5)	
Business Applications 183, Microsoft Word (3)	
Business Applications 184, Advanced Microsoft Word for the Workplace (3)	
Business Applications 185, Real World Microsoft Office Projects (3)	
Total	32



Microsoft Office Professional Certificate (Transcripted) (sac.bamso.ca)

The Microsoft Office Professional Certificate program is designed to provide students training in computer skills based on current business industry standards and technology for any department within a company.

Major requirements for the program:

Course	Units
Business Applications 043, Microsoft Certified Application Specialist Preparation	0.5
Business Applications 049, Introduction to Microsoft Access	1.5
Business Applications 066, Microsoft Outlook	1.5
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I	1
Business Applications 147, Introduction to Windows	1.5
Business Applications 179, Introduction to Microsoft Office	4
Business Applications 180, Advanced Microsoft Office	3
Business Applications 189, Excel Application Projects	1.5
Business Applications 191, PowerPoint – Application Projects	1.5
Select 3 units from the following elective courses:	3
Business Applications 017, Business Writing Skills (3) —OR— Management 122, Business Communications (3) —OR— Business 222, Business Writing (3)	
Business Applications 120, Administrative Office Management (3)	
Business Applications 148, Advanced Windows (1.5)	
Business Applications 160, Microsoft Publisher (3)	
Business Applications 163, Adobe Acrobat (3)	
Business Applications 177, Microsoft OneNote (1.5)	
Business Applications 185, Real World Microsoft Office Projects (3)	
Business 080, Business Mathematics (3)	
Total	19

Office Management Degree (sac.baom.aa)

The Office Management program is designed to prepare a student for employment in a business office as an administrative professional, office administrator, or administrative assistant. Course content includes computer training, administrative office management, office procedures, job search, professional image, business writing, and corporate skills based on current business industry standards.

Major requirements for the associate in arts or science degree:

Course	Units
Business Applications 017, Business Writing Skills —OR— Management 122, Business Communications —OR— Business 222, Business Writing	3
Business Applications 018, Office Procedures —OR— Business Applications 120, Administrative Office Management	3
Business Applications 160, Microsoft Publisher —OR— Business Applications 163, Adobe Acrobat	3
Business Applications 179, Introduction to Microsoft Office	4
Business 080, Business Mathematics	3
Business 120, Principles of Management —OR— Management 120, Principles of Management	3

Select a minimum of 6 units from the following courses: 6

Business Applications 066, Microsoft Outlook (1.5)	
Business Applications 188, Microsoft Excel (1.5)	
Business Applications 189, Excel Application Projects (1.5)	
Business 101, Business Law (3) —OR— Business 105, Legal Environment of Business (3)	
Business 125, Introduction to International Business(3)	

Select 3 units from the following elective courses: 3

Accounting 010, Accounting Procedures (3)	
Accounting 032, Payroll Accounting (1)	
Accounting 035, QuickBooks (2)	
Business Applications 043, Microsoft Certified Application Specialist Preparation (0.5)	
Business Applications 049, Introduction to Microsoft Access (1.5)	
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I (1)	
Business Applications 148, Advanced Windows (1.5)	
Business Applications 160, Microsoft Publisher (3)	
Business Applications 163, Adobe Acrobat (3)	
Business Applications 177, Microsoft OneNote (1.5)	
Business Applications 180, Advanced Microsoft Office (3)	
Business Applications 184, Advanced Microsoft Word for the Workplace (3)	
Business Applications 191, PowerPoint-Application Projects (1.5)	
Total	27

Office Management Certificate (Transcripted) (sac.baom.ca)

The Office Management program is designed to prepare a student for employment in a business office as an administrative professional, office administrator, or administrative assistant. Course content includes computer training, administrative office management, office procedures, job search, professional image, business writing, and corporate skills based on current business industry standards.

Major requirements for the certificate:

Course	Units
Business Applications 017, Business Writing Skills —OR— Management 122, Business Communication	3
Business Applications 018, Office Procedures —OR— Business Applications 120, Administrative Office Management	3
Business Applications 179, Introduction to Microsoft Office	4
Business 080, Business Mathematics	3

Select 3 units from the following elective courses: 3

Accounting 010, Accounting Procedures (3)	
Accounting 032, Payroll Accounting (1)	
Accounting 035, QuickBooks (2)	
Business Applications 035, Computer Fundamentals (1.5)	
Business Applications 043, Microsoft Certified Application Specialist Preparation (0.5)	
Business Applications 049, Introduction to Microsoft Access (1.5)	
Business Applications 066, Microsoft Outlook (1.5)	
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I (1)	
Business Applications 147, Introduction to Windows (1.5)	
Business Applications 160, Microsoft Publisher (3)	
Business Applications 163, Adobe Acrobat (3)	
Business Applications 177, Microsoft OneNote (1.5)	
Business Applications 180, Advanced Microsoft Office (3)	
Business Applications 183, Microsoft Word (3)	
Business Applications 189, Excel Application Projects (1.5)	
Business Applications 191, PowerPoint-Application Projects (1.5)	
Total	16



Spanish/English Interpretation and Translation Option Certificate (Untranscribed) (sac.base.cert)

Course	Units
Spanish 195A, Advanced Conversational Spanish	3
Business Applications 056, General Foundation for Bilingual Business Interpretation-Spanish/English	3
Business Applications 057, Medical Interpretation and Translation-Spanish/English	3
Business Applications 058, Legal Interpretation and Translation-Spanish/English	3
Business Applications 059, Court and Business Work Experience for Interpreters and Translators	
—OR—	
Business Applications 101, Cooperative Work Experience Education – Occupational	1-4
—OR—	
Business 103, Cooperative Work Experience Education – Occupational	
Select 3 units from the following electives:	3
Business Applications 017, Business Writing Skills (3)	
Business Applications 038, Telephone Techniques (0.5)	
Business Applications 115, Computer Keyboarding Speed and Accuracy Development (1)	
Business Applications 179, Introduction to Microsoft Office (4)	
English 061, Introduction to Composition (3)	
English 101, Freshman Composition (4)	
English 101H, Honors Freshman Composition (4)	
Spanish N51, Spanish for Public Personnel (3)	
Spanish 101, Elementary Spanish I (5)	
Spanish 101H, Honors Elementary Spanish I (5)	
Spanish 102, Elementary Spanish II (5)	
Spanish 102H, Honors Elementary Spanish II (5)	
Spanish 195B, Advanced Conversational Spanish (3)	
Spanish 212, College Business Spanish (3)	
—OR—	
Spanish 213, College Spanish Composition (3)	
Total	16-19

Business Information Science

(See Computer Science)

California State University General Education Breadth Certificate of Achievement (sac.csu.ca)

(Complete all CSU general education breadth requirements (Plan B) as outlined on page 38.) (Minimum 39 units)

CHEMISTRY

Chemistry Degree (sac.chem.as)

The associate degree curriculum in chemistry provides basic courses for a wide variety of occupations or prepares the student to enter a curriculum in a four-year institution leading to a baccalaureate degree. The major fields of chemistry are inorganic and organic chemistry, biochemistry, and chemical engineering. These fields provide career opportunities in industry, research, and teaching, and also entry into graduate or professional programs such as medicine, pharmacy and other related health fields. Please see a counselor for specific course requirements for your transfer university.

Major requirements for the associate in science degree:

Course	Units
Chemistry 219, General Chemistry	
—OR—	
Chemistry 219H, Honors General Chemistry	5
Chemistry 229, General Chemistry and Qualitative Analysis	5
Chemistry 249, Organic Chemistry I	5
Chemistry 259, Organic Chemistry II	5
Mathematics 180, Analytical Geometry and Calculus	4
Total	24

CHICANO STUDIES

Chicano Studies Degree (sac.chst.aa)

The associate degree curriculum in Chicano studies emphasizes the history, development, and role of Chicano culture. Completion of the degree program prepares students to pursue a major leading to a baccalaureate degree.

Requirements for the associate in arts degree:

Course	Units
Art 104, Mexican and Chicano Art History	3
Chicano Studies 101, Introduction to Chicano Studies	3
English 246, Survey of Chicano Literature	3
Ethnic Studies 101, Introduction to Ethnic Studies	
—OR—	
Ethnic Studies 101H, Honors Introduction to Ethnic Studies	3
History 124, Mexican American History in the United States	
—OR—	
History 124H, Honors Mexican American History in the United States	3
History 153, History of Mexico	3
History 181, Survey of Chicana/Latina Women's History	3
Spanish 101, Elementary Spanish I	
—OR—	
Spanish 102, Elementary Spanish II	5

A minimum of six (6) units (but, no more than three (3) units from any one discipline) taken from the following list:

Anthropology 100 or 100H, 104 or 104H, 105, 125; Black Studies 101; Dance 105, 110, 111, 112; English 104 or 104H; History 101 or 101H, 102 or 102H, 105, 125, 127, 150, 151; Human Development 221; Music 102 or 102H; Sociology 100 or 100H; Spanish 201 or 201H, 202 or 202H.

Total 32

Child Development

(See Human Development-Early Childhood)

COMMUNICATION STUDIES

Option 1

Communication Studies Degree (sac.cmst.aa)

The associate degree curriculum in communication studies provides training for communicating and dealing with people. Completion of the associate in arts degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree, and then into careers in the field of business, industry, government, or education in such areas as teaching, public speaking, announcing, and public relations.

Major requirements for the associate in arts degree:

Course	Units
Communication Studies 101, Introduction to Interpersonal Communication	
—OR—	
Communication Studies 101H, Honors Introduction to Interpersonal Communication	3
Communication Studies 102, Public Speaking	3



Communication Studies 103, Introduction to Intercultural Communication	3
—OR—	
Communication Studies 103H, Honors Introduction to Intercultural Communication	3
Communication Studies 140, Argumentation and Debate	3
Communication Studies 145, Group Dynamics	3
One additional elective from the following:	3
Communication Studies 151, Voice and Diction for Effective Communication (3)	
Communication Studies 152, Oral Interpretation (3)	
Communication Studies 170, Introduction to Phonetics (3)	
Communication Studies 206, Gender Communication (3)	
—OR—	
Communication Studies 206H, Honors Gender Communication (3)	
Total	18

**Option 2
Associate in Arts in Communication Studies for Transfer (sac.cmst.aat)**

The Associate in Arts in Communication Studies for Transfer (A.A.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in communication studies. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Communication Studies major. See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees. Upon completion of the A.A.-T in Communication Studies students will have a general understanding of the main communication studies theories as they pertain to interpersonal communication, public speaking, interpersonal communication, and argumentation and debate. Students will have the capacity to write and think in a critically analytical way about issues pertaining to the process of human communication.

Course	Units
Required Core (3 Units)	
Communication Studies 102, Public Speaking	3
List A – select two courses (6 units)	
Communication Studies 140, Argumentation and Debate	3
Communication Studies 101, Introduction to Interpersonal Communication	3
—OR—	
Communication Studies 101H, Honors Introduction to Interpersonal Communication	3
Communication Studies 145, Group Dynamics	3
List B – select two courses (6 units)	
Any List A course not used above	3
Communication Studies 103, Introduction to Intercultural Communication	3
—OR—	
Communication Studies 103H, Honors Introduction to Intercultural Communication	3
Communication Studies 151, Voice and Diction for Effective Communication	3
Communication Studies 152, Oral Interpretation	3
Television/Video Communications 105, Mass Media and Society	3
—OR—	
Television/Video Communications 105H, Honors Mass Media and Society	3
List C – select one course (3 units)	
Any course not selected above	3
Anthropology 100, 100H; Communication Studies 158, 170, 206, 206H; Communications & Media Studies 111; English 102, 102H; Psychology 100, 100H; Sociology 100, 100H	3
Total	18

COMMUNICATIONS & MEDIA STUDIES

Associates Degree in Communications & Media Studies

The Department of Communications & Media Studies at Santa Ana College offers students a unique blend of theory and practice. The program provides critical and cultural analysis of media and communications while offering comprehensive study in traditional narrative nonfictional prose styles. In conjunction with a hands-on production sequence in print, digital and Web-based multimedia, students build their production skills while learning to analyze, evaluate, and deconstruct media images and messages considering the broad influence of communications on individuals and society. Students study and practice narrative nonfictional prose writing across the Communications & Media Studies Department curriculum. In addition to classroom settings, students may also develop their production skills through the media lab and work at the college’s nationally acclaimed print, digital, and Web-based publications *el Don* and *West 17th*. Completion of the degree prepares students to move into a four-year program leading to a baccalaureate degree and to potential careers in such fields as Web-based multimedia reporting, visual reporting, photography, design, public relations, advertising, radio, digital media, and television writing and production. Please consult a SAC counselor for information about course requirements for particular four-year institutions. Course content provides Web-based reporting, multimedia storytelling, writing, editing, photography, and digital design skills.

Major requirements for the associate in arts degree:

**Option 1 (A)
Degree Program A-Communications & Media Studies Degree (sac.cmsda.aa)**

Course	Units
Communications & Media Studies 102, Multimedia Storytelling	3
Communications & Media Studies 103, Visual Communications	3
Communications & Media Studies 110, Introduction to Narrative Nonfiction	4
Communications & Media Studies 121, Introduction to Reporting and Newswriting	3
Communications & Media Studies 122, Editing for Print and Digital Media	3
Communications & Media Studies 123, News Media Production	4
Communications & Media Studies 124, Magazine Writing for Print and Digital Media	3
Communications & Media Studies 201, Visual Reporting	2
Communications & Media Studies 222, Writing Across Media	3
Communications & Media Studies 298, Designing for Print and Digital Media	3
Total	31

**Option 1 (B)
Degree Program B-Broadcast Communications & Media Studies Emphasis Degree (sac.cmsdb.aa)**

Course	Units
Communications & Media Studies 121, Introduction to Reporting and Newswriting	3
Television/Video Communications 100, Introduction to Electronic Media: Broadcasting, Cable, Video	3
Television/Video Communications 105, Mass Media and Society	3
Television/Video Communications 110, Introduction to Television Production	3
Television/Video Communications 111, Television Production	3
Communications & Media Studies 130, Principles of Broadcast News	3
Television/Video Communications 141, On-Camera Appearance	3



Communications & Media Studies 230A, Broadcast News Production	4
Communications & Media Studies 230B, Broadcast News Production	4
Communication Studies 101, Introduction to Interpersonal Communication (3)	3
—OR—	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	3
Communication Studies 151, Voice and Diction for Effective Communication	3
Total	35

Note: The following courses satisfy general education requirements and are prerequisites for the major: English 101 or 101H, 102 or 102H.

Recommended electives: English 241, 242, 243; History 118 or 118H, 120 or 120H, 121 or 121H; Communication Studies 140, 152; Communications & Media Studies *N98, 098, 122, 123, 124, 198, 222, 230CD; Philosophy 110; Political Science 101 or 101H; Psychology 100 or 100H; Television/Video Communications 009, *N98, 098, 101, 112, 120, 121, 131, 142, 150, 160, 161, 180, 198, 211, 260; Theatre Arts 110.

*Courses that have an “N” preceding the number may be required for the major, but are not applicable to the 60 units required for the degree.

Option 2 Associate in Arts in Journalism for Transfer (sac.cmsd.aat)

The Associate in Arts in Journalism for Transfer (A.A.-T Journalism) prepares students to move into the CSU system leading to a baccalaureate degree in Journalism, and then into careers in daily reporting, media editing, writing, Web-based multimedia reporting, visual reporting, photography, print and digital design, public relations, advertising, radio, digital media, and television writing and production. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T Journalism degree also provides guaranteed admission with junior status to the CSU system (*admission not guaranteed to a specific major or campus*), along with priority admission consideration to a local CSU. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Journalism, students will be able to define and execute newsgathering strategies; write articles under deadline; edit their own and others’ articles for proper spelling, grammar and AP Style; define relevant news content; gather news information weekly; and assess legal and ethical media issues at the final level of a traditional lower division Journalism sequence. Through news production, students will demonstrate proficiency in developing effective designs and layouts for story presentation; develop news stories through written, visual, audio, video or other multimedia formats; determine the best format –print, multimedia, visual –for telling basic news stories; build a portfolio that demonstrates a range of storytelling formats and styles; and navigate content management software used to create online publications.

Courses	Units
Required Core (10 units)	
Communications & Media Studies 121, Introduction to Reporting and Newswriting	3
Communications & Media Studies 123A, News Media Production	4
Television/Video Communications 105, Mass Media and Society (3)	3
—OR—	
Television/Video Communications 105H, Honors Mass Media and Society (3)	3
List A: select 1 course from the following: (3-4 units)	
Communications & Media Studies 103, Introduction to Visual Communications (3)	3-4
Communications & Media Studies 123B, Intermediate News Media Production (4)	
Communications & Media Studies 160, Introduction to Photojournalism (3)	
Communications & Media Studies 210, Intermediate Reporting and Newswriting (3)	
List B: select 2 courses from the following: (6-8 units)	
1. Communications & Media Studies 111, Media, Race and Gender (3)	6-8
2. Communications & Media Studies 140, Argumentation and Debate	
3. Communications & Media Studies 298A, Designing for Print and Digital Media (3)	
4. Counseling 144, Reasoning and Problem Solving (3)	
—OR—	
Philosophy 144, Reasoning and Problem Solving (3)	
—OR—	
Reading 150, Critical Reading (3)	
5. Economics 120, Principles/Macro (3)	
—OR—	
Economics 121, Principles/Micro (3)	
6. English 102, Literature and Composition (4)	
—OR—	
English 102H, Honors Literature and Composition (4)	
—OR—	
English 103, Critical Thinking and Writing (4)	
—OR—	
English 103H, Honors Critical Thinking and Writing (4)	
—OR—	
Philosophy 110, Critical Thinking (4)	
—OR—	
Philosophy 110H, Honors Critical Thinking (4)	
7. Mathematics 219, Statistics and Probability (4)	
—OR—	
Mathematics 219H, Honors Statistics and Probability (4)	
—OR—	
Social Science 219, Statistics and Probability (4)	
—OR—	
Social Science 219H, Honors Statistics and Probability (4)	
8. Philosophy 111, Introductory Logic (4)	
9. Photography 180, Beginning Photography (3)	
10. Political Science 101, Introduction to American Governments (3)	
—OR—	
Political Science 101H, Honors Introduction to American Governments (3)	
11. Political Science 201, Introduction to Comparative Politics (3)	
Total Units	19-22



Communications & Media Studies Certificate (Transcripted) (sac.cmsd.ca)

The certificate program in Communications & Media Studies offers students a unique blend of theory and practice. The program provides critical and cultural analysis of media and communications in conjunction with a hands-on production sequence in print, digital and Web-based multimedia, leading to potential entry-level positions in multimedia and communications fields.

Course	Units
Communications & Media Studies 102, Multimedia Storytelling	3
Communications & Media Studies 103, Visual Communications	3
Communications & Media Studies 110, Introduction to Narrative Nonfiction	4
Communications & Media Studies 121, Introduction to Reporting and Newswriting ¹	3
Communications & Media Studies 123, News Media Production	4
Communications & Media Studies 125, Media Editing 1.5 Workshop	2
Communications & Media Studies 201, Visual Reporting	2
Communications & Media Studies 222, Writing Across Media	3
Communications & Media Studies 298, Designing for Print and Digital Media	3
Total	26.5

COMMUNITY SOCIAL SERVICES

Community Social Services Degree (sac.css.aa)

The major course requirements for the associate degree in Community Social Services enable students to move into a transfer curriculum at a four-year university that can lead to a baccalaureate degree in Human Services. The baccalaureate degree in Human Services prepares students for graduate programs in Counseling, Social Work and Marriage and Family Therapy. Please see a counselor for specific course requirements for your transfer university.

Major requirements for the associate in arts degree:

Course	Units
Counseling 150, Introduction to Human Services	3
Counseling 155, Skills for the Helping Professions	3
Human Development 107, Child, Growth and Development	3
Psychology 157, Introduction to Child Psychology	3
Sociology 112, Relationships, Marriages, and Family Dynamics	3
Psychology 100, Introduction to Psychology	3
Psychology 100H, Honors Introduction to Psychology	3
Select a minimum of 6 units from the electives below:	6
Total	18

Electives (all electives are 3 units unless otherwise noted): Anthropology 100 or 100H, Biology 149 (4 units), Counseling 116, Counseling 120, Education 100, Education 210, Human Development 116A, Human Development 110, Human Development 205, Human Development 220, Mathematics 219 (highly recommended) or 219H (4 units), Mathematics 105, Psychology 250, Social Science 219 or 219H (4 units), Sociology 100 or 100H, Sociology 112 or Psychology 100 or 100H, if not chosen from above.

COMPUTER INFORMATION SYSTEMS

Computer Information Systems Degree (sac.cis.as)

The associate degree curriculum in Computer Information Systems is concerned with the development of procedures that are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major requirements for upper division standing listed under the Business Administration major at the school of their choice.

Major requirements for the associate degree:

Take ALL of the following courses:	Units
Computer Science 105, Visual BASIC Programming	3
Computer Science 163, Microsoft Excel	3
Computer Science 167, Microsoft Access	3
Computer Science 173, Introduction to Networking Technology	3
Computer Science 205, Advanced Visual BASIC	3

Select ONE course from the following:

Business 150, Introduction to Information Systems and Applications (3)	3
—OR—	
Computer Science 100, The Computer and Society (3)	

Select ONE course from the following:

Computer Science 134B, Windows Vista Operating System (3)	3
—OR—	
Computer Science 134C, Microsoft Windows 7 Operating System (3)	3
—OR—	
Computer Science 134D, Microsoft Windows 8 Operating System (3)	3

Select ONE course from the following:

Computer Science 247B, Windows Server 2008 (3)	3
—OR—	
Computer Science 247C, Windows Small Business Server (SBS) 2011–Standard (3)	3
—OR—	
Computer Science 247D, Windows Server 2012 (3)	3

Select a minimum of THREE units from the following:

Accounting 101, Financial Accounting (4)	3
Accounting 102, Managerial Accounting (4)	
Accounting 160, Computerized Accounting with MAS 90® - Part 1 Core Modules (3)	
Computer Science 104, Cooperative Work Experience Education –Occupational (1-16)	
Computer Science 112, Java Programming (3)	
Computer Science 117, Perl Programming and CGI (3)	
Computer Science 118, JavaScript Programming (3)	
Computer Science 120, Introduction to Programming (3)	
Computer Science 121, Programming Concepts (3)	
Computer Science 124A, MCDST Preparation (3)	
Computer Science 125, Help Desk Skills (1.5)	
Computer Science 135, Software Deployment Mechanisms (1.5)	
Computer Science 136, Building a Small Office/Home Office Network (1.5)	
Computer Science 137, Personal Compute Troubleshooting (3)	
Computer Science 139, Configuration and Administration of Local Area Networks (1.5)	
Computer Science 141, UNIX Operating System (3)	
Computer Science 142, Advanced Unix (3)	
Computer Science 152, HTML (3)	
Computer Science 168, Advanced Microsoft Access (3)	
Computer Science 169, Structured Query Language (SQL) (3)	
Computer Science 206, Visual Basic for Web Development (3)	
Computer Science 213, C# Programming (3)	



Computer Science 214, XML Programming (3)	
Computer Science 243, UNIX System Programming (3)	
Computer Science 244, Microsoft Exchange Server (3)	
Computer Science 247B, Windows Server 2008 (3)	
Computer Science 247C, Windows Small Business Server (SBS) 2011–Standard (3)	
Computer Science 247D, Windows Server 2012 (3)	
Computer Science 248, Microsoft SQL Server (3)	
Computer Science 249, Microsoft Internet Information Server (IIS) (3)	
Total	27

Computer Information Systems Certificate (Transcripted) (sac.cis.ca)

The Certificate of Achievement curriculum in Computer Information Systems is concerned with the development of procedures that are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major requirements for upper-division standing listed under the Business Administration major at the school of their choice.

Major requirements for the Certificate:

Take ALL of the following courses:	Units
Computer Science 105, Visual BASIC Programming	3
Computer Science 163, Microsoft Excel	3
Computer Science 167, Microsoft Access	3
Computer Science 173, Introduction to Networking Technology	3
Computer Science 205, Advanced Visual BASIC	3

Select ONE course from the following:

Business 150, Introduction to Information Systems and Applications (3)	3
—OR—	
Computer Science 100, The Computer and Society (3)	

Select ONE course from the following:

Computer Science 134B, Windows Vista Operating System (3)	
—OR—	
Computer Science 134C, Microsoft Windows 7 Operating System (3)	3
—OR—	
Computer Science 134D, Microsoft Windows 8 Operating System (3)	

Select ONE course from the following:

Computer Science 247B, Windows Server 2008 (3)	
—OR—	
Computer Science 247C, Windows Small Business Server (SBS) 2011–Standard (3)	3
—OR—	
Computer Science 247D, Windows Server 2012 (3)	

Select a minimum of THREE units from the following:

Accounting 101, Financial Accounting (4)	
Accounting 102, Managerial Accounting (4)	
Accounting 160, Computerized Accounting with MAS 90® - Part 1 Core Modules (3)	
Computer Science 104, Cooperative Work Experience Education –Occupational (1-16)	
Computer Science 112, Java Programming (3)	
Computer Science 117, Perl Programming and CGI (3)	
Computer Science 118, JavaScript Programming (3)	
Computer Science 120, Introduction to Programming (3)	
Computer Science 121, Programming Concepts (3)	
Computer Science 124A, MCDST Preparation (3)	
Computer Science 125, Help Desk Skills (1.5)	

Computer Science 135, Software Deployment Mechanisms (1.5)	
Computer Science 136, Building a Small Office/Home Office Network (1.5)	
Computer Science 137, Personal Computer Troubleshooting (3)	
Computer Science 139, Configuration and Administration of Local Area Networks (1.5)	
Computer Science 141, UNIX Operating System 3	
Computer Science 142, Advanced Unix 3	
Computer Science 152, HTML 3	
Computer Science 168, Advanced Microsoft Access 3	
Computer Science 169, Structured Query Language (SQL) 3	
Computer Science 206, Visual Basic for Web Development (3)	
Computer Science 213, C# Programming (3)	
Computer Science 214, XML Programming (3)	
Computer Science 243, UNIX System Programming (3)	
Computer Science 244, Microsoft Exchange Server (3)	
Computer Science 247B, Windows Server 2008 (3)	
Computer Science 247C, Windows Small Business Server (SBS) 2011–Standard (3)	
Computer Science 247D, Windows Server 2012 (3)	
Computer Science 248, Microsoft SQL Server (3)	
Computer Science 249, Microsoft Internet Information Server (IIS) (3)	
Total	27

Database Certificate (Untranscripted) (sac.cisdb.cert)

Take ALL of the following courses:	Units
Computer Science 105, Visual BASIC Programming	3
Computer Science 167, Microsoft Access	3
Computer Science 168, Advanced Microsoft Access	3
Computer Science 169, Structured Query Language (SQL)	3
Computer Science 205, Advanced Visual BASIC	3
Total	15

Enterprise Systems Certificate (Untranscripted) (sac.cmpres.cert)

The associate degree and certificate curriculum in Computer Information Systems is concerned with the development of procedures that are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major requirements for upper-division standing listed under the Business Administration major at the school of their choice.

Take ALL of the following courses:	Units
Computer Science 244, Microsoft Exchange Server	3
Computer Science 248, Microsoft SQL Server	3
Computer Science 249, Microsoft Internet Information Server (IIS)	3

Select ONE course from the following:

Computer Science 247B, Windows Server 2008 (3)	
—OR—	
Computer Science 247C, Windows Small Business Server (SBS) 2011–Standard (3)	3
—OR—	
Computer Science 247D, Windows Server 2012 (3)	
Total	12



Help Desk Certificate (Untranscribed) (sac.cishd.cert)

The associate degree and certificate curriculum in Computer Information Systems is concerned with the development of procedures that are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major requirements for upper-division standing listed under the Business Administration major at the school of their choice.

Take ALL of the following courses:	Units
Computer Science 100, The Computer and Society	3
Computer Science 104, Cooperative Work Experience Education 1-4 -Occupational	
Computer Science 124A, MCDST Preparation	3
Computer Science 125, Help Desk Skills	1.5
Computer Science 137, Personal Computer Troubleshooting	3

Select ONE course from the following:

Computer Science 134B, Windows Vista Operating System (3)	
Computer Science 134C, Microsoft Windows 7 Operating System (3)	3
Computer Science 134D, Microsoft Windows 8 Operating System (3)	

Total 14.5-17.5

Networking Certificate (Untranscribed) (sac.cisnw.cert)

The associate degree and certificate curriculum in Computer Information Systems is concerned with the development of procedures that are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major requirements for upper-division standing listed under the Business Administration major at the school of their choice.

Take ALL of the following courses:	Units
Computer Science 136, Building a Small Office/Home Office Network	1.5
Computer Science 139, Configuration and Administration of Local Area Networks	1.5
Computer Science 173, Introduction to Networking Technology	3

Select ONE course from the following:

Computer Science 134A, Windows XP Operating System (3)	
Computer Science 134B, Windows Vista Operating System (3)	3
Computer Science 134C, Microsoft Windows 7 Operating System (3)	
Computer Science 134D, Microsoft Windows 8 Operating System (3)	

Select ONE course from the following:

Computer Science 247A, Microsoft Windows Server 2003 (3)	
Computer Science 247B, Microsoft Windows Server 2008 (3)	3
Computer Science 247C, Windows Small Business Server (SBS) 2011-Standard (3)	
Computer Science 247D, Windows Server 2012 (3)	

Total 12

PC Maintenance and Troubleshooting Certificate (Untranscribed) (sac.cmpm.cert)

The associate degree and certificate curriculum in Computer Information Systems is concerned with the development of procedures that are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major requirements for upper-division standing listed under the Business Administration major at the school of their choice.

Take ALL of the following courses:	Units
Computer Science 135, Software Deployment Mechanisms	1.5
Computer Science 136, Building a Small Office/Home Office Network	1.5
Computer Science 137, Personal Computer Troubleshooting	3
Computer Science 139, Configuration and Administration of Local Area Networks	1.5
Computer Science 173, Introduction to Networking Technology	3

Select ONE course from the following:

Computer Science 134B, Windows Vista Operating System (3)	3
Computer Science 134C, Windows 7 Operating System (3)	
Computer Science 134D, Microsoft Windows 8 Operating System (3)	

Select ONE course from the following:

Computer Science 247B, Microsoft Windows Server 2008 (3)	
Computer Science 247C, Windows Small Business Server (SBS) 2011-Standard (3)	3
Computer Science 247D, Windows Server 2012 (3)	

Total 16.5

UNIX Certificate (Untranscribed) (sac.cisux.cert)

Take ALL of the following courses:	Units
Computer Science 117, Perl Programming and CGI	3
Computer Science 141, UNIX Operating System	3
Computer Science 142, Advanced UNIX	3
Computer Science 243, UNIX System Programming	3
Total	12

Web Programming Certificate (Untranscribed) (sac.ciswp.cert)

Take the following 3 courses:	Units
Computer Science 105, Visual BASIC Programming	3
Computer Science 205, Advanced Visual BASIC	3
Computer Science 206, Visual BASIC for Web Development	3

Select ONE course from the following:

Computer Science 112, Java Programming (3)	3
Computer Science 213, C# Programming (3)	

Select ONE course from the following:

Computer Science 117, Perl Programming and CGI (3)	
Computer Science 118, JavaScript Programming (3)	3
Computer Science 214, XML Programming (3)	

Total 15



Computer Related Programs

The Rancho Santiago Community College District offers two major programs, which are described below.

Computer Information Systems

Computer Information Systems (CIS) is a program for students interested in the application of computer hardware and software to business. CIS courses prepare students for entry-level positions in programming, networking, or computer support. These courses may be used for job advancement, an associate degree or certificate of competency, or transfer to a four-year institution. CIS courses cover major programming languages (Visual BASIC, C++, Java) as well as software used in business for database management, spreadsheets, and networking. The introductory course for the CIS program is Business 150.

COMPUTER SCIENCE

Computer Science courses are designed to meet the varying goals of students interested in employment or education in the computer field. There are courses on specific languages for professionals who want to supplement their skills with the knowledge of a current programming language (PC Assembler, C++, Visual BASIC, Java). A certificate in computer science can be earned by those students desiring to enter the workplace at entry-level positions. Also, an associate degree can be earned by those students desiring to transfer to a four-year institution with a major in Computer Science.

The Computer Science courses provide instruction in low-level and high-level languages, intermediate and advanced techniques in programming, and hardware organization. Refer to Computer Science in the courses section of this catalog and to the schedule of classes for specific information.

Option 1

Computer Science Degree (sac.cmpr.as)

The associate degree and certificate curriculum in computer science leads to entry-level employment in computer science, engineering, and other areas where high aptitude in computer programming is recognized. The program prepares students for careers as engineering aides, scientific computing technicians, and junior programmers. The program also prepares students to transfer to a university with a major in Computer Science.

Major requirements for the associate in science degree:

Take ALL of the following courses:	Units
Computer Science 100, The Computer and Society	3
Computer Science 120, Introduction to Programming	3
Computer Science 121, Programming Concepts	3
Computer Science 129, Introduction to Computer Organization	4
Computer Science 131, Data Structures Concepts	3
Select ONE course from the following:	3
Computer Science 112, Java Programming (3)	
Computer Science 205, Advanced Visual BASIC (3)	
Computer Science 213, C# Programming (3)	

Select an additional SIX units from the following:	6
Computer Science 112, Java Programming (3)	
Computer Science 117, Perl Programming and CGI (3)	
Computer Science 118, JavaScript Programming (3)	
Computer Science 134B, Windows Vista Operating System (3)	
Computer Science 134C, Microsoft Windows 7 Operating System (3)	
Computer Science 134D, Microsoft Windows 8 Operating System (3)	
Computer Science 135, Software Deployment Mechanisms (1.5)	

Computer Science 139, Configuration and Administration of Local Area Networks (1.5)	
Computer Science 140, Discrete Structures for Computer Science (3)	
Computer Science 141, UNIX Operating System (3)	
Computer Science 142, Advanced Unix (3)	
Computer Science 205, Advanced Visual Basic (3)	
Computer Science 213, C# Programming (3)	
Computer Science 243, UNIX System Programming (3)	
Computer Science 247B, Windows Server 2008 (3)	
Computer Science 247C, Windows Small Business Server (SBS)2011-Standard (3)	
Computer Science 247D, Windows Server 2012 (3)	
Computer Science 248, Microsoft SQL Server (3)	
Computer Science 249, Microsoft Internet Information Server (IIS), (3)	
Mathematics 180, Analytic Geometry and Calculus (4)	
Mathematics 185, Analytic Geometry and Calculus (4)	
Total	25

Option 2

Associate in Science in Computer Science for Transfer (sac.cmpr.ast)

The Associate in Science in Computer Science for Transfer (A.S.-T Computer Science) prepares students to transfer into the CSU system. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the Associate in Science in Computer Science for Transfer (A.S.-T Computer Science) also provides guaranteed admission with junior status to the CSU system although does not guarantee acceptance to a particular campus or major. See page 30 of the SAC catalog for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.*

Upon completion of this degree (A.S.-T Computer Science), students will be well-versed in the use of standard computer control structures to solve problems and develop algorithms. They will have developed skills in writing programs that utilize functions as a method of program organization and control. Additional areas of emphasis will include objects, object-oriented programming, data structures, and abstract data types. Computer science students will also obtain knowledge of computer architecture and organization. The Computer Science curriculum also requires the student to have significant skills in mathematics and the applications of those skills to real world problem solving.

Required Core (29 units)	Units
Computer Science 121, Programming Concepts	3
Computer Science 131, Data Structures Concepts	3
Computer Science 129, Introduction to Computer Organization	4
Computer Science 140, Discrete Structures for Computer Science	3
Mathematics 180, Analytic Geometry and Calculus I	4
Mathematics 185, Analytic Geometry and Calculus II	4
Physics 217, Engineering Physics I	4
Physics 227, Engineering Physics II	4
Total	29

* **Note: Only IGETC (Plan C) will be accepted toward completion of the general education portion of this degree. Unlike other Associate Degrees for Transfer, CSU-GE (Plan B) completion will not be accepted for this degree. (An Oral Communication course, IGETC Area 1C, must be completed in order to meet CSU admission requirements.)**



Computer Science Certificate (Transcribed) (sac.cmpr.ca)

The certificate curriculum in computer science leads to entry-level employment in computer science, engineering and other areas where high aptitude in computer programming is recognized. The program prepares students for careers as engineering aides, scientific computing technicians and junior programmers. The program also prepares students to transfer to a university with a major in Computer Science.

Major requirements for the certificate:

Take ALL of the following courses:	Units
Computer Science 100, The Computer and Society	3
Computer Science 120, Introduction to Programming	3
Computer Science 121, Programming Concepts	3
Computer Science 129, Introduction to Computer Organization	4
Computer Science 131, Data Structures Concepts	3
Select ONE course from the following:	3
Computer Science 112, Java Programming (3)	
Computer Science 205, Advanced Visual BASIC	
Computer Science 213, C# Programming	
Select an additional SIX units from the following:	6
Computer Science 112, Java Programming (3)	
Computer Science 117, Perl Programming and CGI (3)	
Computer Science 118, JavaScript Programming (3)	
Computer Science 134B, Windows Vista Operating System (3)	
Computer Science 134C, Microsoft Windows 7 Operating System (3)	
Computer Science 134D, Microsoft Windows 8 Operating System (3)	
Computer Science 135, Software Deployment Mechanisms (1.5)	
Computer Science 139, Configuration and Administration of Local Area Networks (1.5)	
Computer Science 140, Discrete Structures for Computer Science (3)	
Computer Science 141, UNIX Operating System (3)	
Computer Science 142, Advanced Unix (3)	
Computer Science 205, Advanced Visual Basic (3)	
Computer Science 213, C# Programming (3)	
Computer Science 243, UNIX System Programming (3)	
Computer Science 244, Microsoft Exchange Server (3)	
Computer Science 247B, Windows Server 2008 (3)	
Computer Science 247C, Windows Small Business Server (SBS)2011-Standard (3)	
Computer Science 247D, Windows Server 2012 (3)	
Computer Science 248, Microsoft SQL Server (3)	
Computer Science 249, Microsoft Internet Information Server (IIS), (3)	
Mathematics 180, Analytic Geometry and Calculus (4)	
Mathematics 185, Analytic Geometry and Calculus (4)	
Total	25

Programming Certificate (Untranscribed) (sac.cmpr.cert)

Take ALL of the following courses:	Units
Computer Science 120, Introduction to Programming	3
Computer Science 121, Programming Concepts	3
Computer Science 131, Data Structures Concepts	3
Select ONE course from the following:	3
Computer Science 112, Java Programming (3)	
—OR—	
Computer Science 205, Advanced Visual BASIC (3)	
—OR—	
Computer Science 213, C# Programming (3)	
Total	12

CRIMINAL JUSTICE

The Criminal Justice associate degree curriculum is designed to provide students with a solid base for additional study at a four-year institution and for entry-level employment in federal, state, local or private criminal justice agencies. Completion of the law enforcement certificate program exceeds the minimum P.O.S.T. requirements for entry-level employment as peace officers. Completion of course requirements listed for the law enforcement reserve officer provides students with the knowledge and skills in excess of those required by the California Commission on P.O.S.T. for entry-level service as a reserve officer. The Law Enforcement Custody and Advanced Officer course offerings are designed to upgrade the skills and knowledge required for employed peace officers as well as to provide knowledge and skills based on new legal and/or judicial rulings.

Option 1 Criminal Justice Option Degree (sac.cj.aa)

Major requirements for the associate in arts degree:

Course	Units
Criminal Justice 048, Writing Skills for Criminal Justice Personnel	3
Criminal Justice 101, Introduction to Criminal Justice	3
Criminal Justice 102, Introduction to Corrections	3
Criminal Justice 103, Concepts of Criminal Law	3
Criminal Justice 105, Legal Aspects of Evidence	3
Criminal Justice 107, Principles and Procedures in the Criminal Justice System	3
Criminal Justice 205, Criminal Investigation Principles	3
Electives 6 units: Select electives from the following list:	6
Criminal Justice 104, Prison Experience (3)	
Criminal Justice 106, Coroner Death Investigation (3)	
Criminal Justice 108, Crime Scene Investigation (3)	
Criminal Justice 109, Community Interaction (3)	
Criminal Justice 110, Street Gangs (3)	
Criminal Justice 209, Organized Crime (3)	
Criminal Justice 210, Drug Abuse and Criminal Justice (3)	
Criminal Justice 220, Juvenile Delinquency and Control (3)	
Total	27

Completion of Criminal Justice Academies 100, Basic Police Academy, will satisfy the requirements in lieu of the above 6 units of electives. All students must complete the basic seven-course core curriculum to qualify for the degree.

Option 2 Associate in Science in Administration of Justice for Transfer (sac.cj.ast)

The Associate in Science in Administration of Justice for Transfer (A.S.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in Criminal Justice. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.S.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, in the Criminal Justice major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.S.-T in Administration of Justice students will have a greater understanding of illegal behavior and how their behavior interacts with the criminal justice system. The student will also learn the operation of the criminal justice system from arrest, trial, corrections and release into the community.



Required Core (6 units)	Units
Criminal Justice 101, Introduction to Criminal Justice	3
Criminal Justice 103, Concepts of Criminal Law	3

List A - Select two courses (6 units)	6
Criminal Justice 102, Introduction to Corrections (3)	
Criminal Justice 105, Legal Aspects of Evidence (3)	
Criminal Justice 107, Principles and Procedures in the (3) Criminal Justice System	
Criminal Justice 108, Crime Scene Investigation (3)	
Criminal Justice 109, Community Interaction (3)	
Criminal Justice 205, Criminal Investigation Principles	
Criminal Justice 220, Juvenile Delinquency and Control (3)	

List B – select two course (6-8 units)	6-8
Mathematics 219, Statistics and Probability (4) —OR—	
Mathematics 219H, Honors Statistics and Probability (4) —OR—	
Social Science 219, Statistics and Probability (4) —OR—	
Social Science 219H, Honors Statistics and Probability (4)	
Philosophy 110, Critical Thinking (4) —OR—	
Philosophy 110H, Honors Critical Thinking (4)	
Philosophy 111, Introductory Logic (4)	
Political Science 101, Introduction to American Governments (3) —OR—	
Political Science 101H, Honors Introduction to American Governments (3)	
Psychology 100, Introduction to Psychology (3) —OR—	
Psychology 100H, Honors Introduction to Psychology (3)	
Sociology 100, Introduction to Sociology 3 —OR—	
Sociology 100H, Honors Introduction to Sociology (3)	
Criminal Justice 106, Coroner Death Investigations (3)	
Criminal Justice 210, Drug Abuse and Criminal Justice (3)	
Total	18-20

Corrections Officer Program Certificate (Untranscribed)(sac.cjco.cert)

Course	Units
Criminal Justice 048, Writing Skills for Criminal Justice Personnel	3
Criminal Justice 101, Introduction to Criminal Justice	3
Criminal Justice 102, Introduction to Corrections	3
Criminal Justice 103, Concepts of Criminal Law	3
Criminal Justice 105, Legal Aspects of Evidence	3
Criminal Justice 205, Criminal Investigation	3
Total	18

Law Enforcement Option Certificate (Transcribed) (sac.cjle.ca)

Major requirements for the certificate:

Course	Units
Criminal Justice Academies 010, Pre-Employment Preparation for Law Enforcement	19-21
Criminal Justice Academies 100A, Basic Police Academy	19-21
Criminal Justice 101, Introduction to Criminal Justice	3
Criminal Justice 103, Concepts of Criminal Law	3
Criminal Justice 105, Legal Aspects of Evidence	3
Criminal Justice 107, Principles and Procedures in the Criminal Justice System	3
Criminal Justice 109, Community Interaction	3
Total	35-37

DANCE

Dance Program A–Dance Degree (sac.dnce.aa)

The associate in arts degree program in dance provides training in three areas of technique: ballet, modern, and jazz. Integral parts of the curriculum are practical experience in concert performance and production work as well as a theoretical background in choreography, somatics, dance history and world dance and cultures. The dance program is designed for both the student who wishes to major in dance and the student seeking an acquaintance with the practice and theory of dance. Completion of the associate in arts degree prepares the student to enter a four-year institution leading to a baccalaureate degree. Please consult a SAC counselor for information about course requirements for particular four-year institutions. The dance program provides training for careers and employment in the performing arts, education, choreography, movement therapy, studio and arts management, arts consultancy, dance criticism, fitness, and related fields.

Major requirements for the associate degree in dance:

Course	Units
Dance 100, Dance History and Appreciation —OR—	3
Dance 100H, Honors Dance History and Appreciation	3
Dance 105, World Dance and Cultures	3
Dance 130, Dance Improvisation	1
Dance 201B, Ballet II	2
Dance 202B, Choreography for Dance Majors	3
Dance 204A, Dance Production	2
Dance 204B, Dance Production	2
Dance 205, Performance Ensemble	2
Dance 206B, Modern Dance II	2
Dance 209, Modern Dance III	2
Dance 210, Modern Dance IV	2
Dance 213, Ballet III	2
Dance 214, Ballet IV	2
Dance 219B, Jazz Dance II	2
Dance 220, Jazz Dance III	2
Dance 221, Jazz Dance IV	2
Dance 260, Somatic Practices in Dance	3
Electives from recommended list	2
Total	39

Recommended electives: Dance 009, 010, 102, 103, 106A, 106B, 107, 108A, 108B, 110, 111, 112, 117, 118, 119B, 122, 123, 124, 140, 180, 198, 201A, 202A, 205, 206A, 214, 219A, 240A, 240B, 250A, 250B, 251, 261, 262, 263, 270, 296, 297, 298.

Dance Certificate (Transcribed) (sac.dnce.ca)

The certificate program in dance combines comprehensive advanced courses in dance technique with courses of a specialized nature to provide a complete program of study and training in technique and performance. This program is designed to develop skills necessary for a career as a dance performer and to provide extensive pre-professional performance experience. Employment opportunities exist in a variety of areas: dance companies; instructor in private dance studios; dancer for commercial stage, television, and film; choreographer/performer in music videos; and production choreographer.

**Requirements for the certificate:**

Course	Units
Dance 122, Commercial Contemporary Dance	1
Dance 180, Professional Studio Practices	1
Dance 202B, Choreography for Dance Majors	3
Dance 204A, Dance Production	2
Dance 205, Performance Ensemble	2
Dance 209, Modern Dance III	2
Dance 210, Modern Dance IV	2
Dance 213, Ballet III	2
Dance 214, Ballet IV	2
Dance 220, Jazz Dance III	2
Dance 221, Jazz Dance IV	2
Dance 240A, Repertory I	2
Dance 240B, Repertory II	2
Dance 251, Hip Hop Dance III	2
Electives from recommended list	2
Total	29

Recommended electives: Dance 009, 010, 105, 107, 109ABC, 110, 111, 112, 117, 118, 123, 124, 130, 198, 250AB, 260, 261, 262, 263, 270, 296, 297, 298; Television/Video Communications 110; Theatre Arts 110, 113, 132.

Data Processing

(See *Computer Information Systems*.)

DIESEL TECHNOLOGY**Diesel and Heavy Equipment Technology Degree (sac.dsl.as)**

In addition to the general education requirements, the associate degree in diesel and heavy equipment is designed to successfully prepare students to enter the medium and heavy-duty transportation industry as an apprentice or helper diesel mechanic or provide supplementary knowledge for equipment operators and truck drivers. The program provides lecture and lab activities related towards heavy-duty diesel engines, power train units, steering and suspension components, brakes, electrical and fuel systems, as well as developing oxyacetylene and arc welding skills. Those working in the industry will be able to improve their competencies in each subject area. Employment opportunities exist for trained men and women in a rapidly expanding field.

Major requirements for the associate degree:

Course	Units
Diesel 008, Oxyacetylene-Arc Welding	3
Diesel 009, Chassis Overhaul	8
Diesel 021, Mid-Range Diesel Engine Service	4.5
Diesel 025, Diesel and Heavy Duty Vehicle Engine Overhaul	8
Diesel 032, Diesel Fuel Injection Systems Service	5
Diesel 040, Diesel Electrical Systems	5
Electives	3
Total	36.5

Electives: Business 170; Diesel 010, 013, 015, 022, 024, 050, 055, 062, 068, 069, 070, 071, 072, 073, 075, 076, 077, 078, 079, 080, 095; English 101; Manufacturing Technology 053, 188; Mathematics 080/081; Communication Studies 101 or 101H.

Diesel and Heavy Equipment Technology Certificate (Transcripted) (sac.dsl.ca)

The certificate curriculum in diesel and heavy equipment is designed to successfully prepare students to enter the medium and heavy-duty transportation industry as an apprentice or helper diesel mechanic or provide supplementary knowledge for equipment operators and truck drivers. The program provides lecture and lab activities related towards heavy-duty diesel engines, power train units, steering and suspension components, brakes, electrical and fuel systems as well as developing oxyacetylene and arc welding skills. Those working in the industry will be able to improve their competencies in each subject area. Employment opportunities exist for trained men and women in a rapidly expanding field.

Requirements for the certificate:

Course	Units
Diesel 008, Oxyacetylene-Arc Welding	3
Diesel 009, Chassis Overhaul	8
Diesel 021, Mid-Range Diesel Engine Service	4.5
Diesel 025, Diesel and Heavy Duty Vehicle Engine Overhaul	8
Diesel 032, Diesel Fuel Injection Systems Service	5
Diesel 040, Diesel Electrical Systems	5

Choose 3 units from the following electives:

Business 170, Principles of Small Business Management (3)	3
Diesel 010, Bendix Air Brake System Service (1.5)	1.5
Diesel 013, Allison Transmission Service (5)	5
Diesel 015, Introduction to Heavy Duty Mobile Hydraulics (4)	4
Diesel 022, Electronics Fundamentals (5)	5
Diesel 024, Electrical Systems (5)	5
Diesel 050, Transport Refrigeration (8)	8
Diesel 055, Marine Container Refrigeration (4)	4
Diesel 062, Air Conditioning and Heating (3)	3
Diesel 068, Transit Vehicle Engines (0.8)	0.8
Diesel 069, Paratransit Driver Training (1)	1
Diesel 070, Bus Driver Training (2.3)	2.3
Diesel 071, Introduction to Coach Operations (0.3)	0.3
Diesel 072, Transit Vehicle Electrical Systems (0.2)	0.2
Diesel 073, Transit Vehicle Air Systems (0.2)	0.2
Diesel 075, Transit Vehicle Automatic Transmissions (0.5)	0.5
Diesel 076, Engine Repair (4.5)	4.5
Diesel 077, Transit Vehicle Heating, Ventilation, Air Conditioning (0.5)	0.5
Diesel 078, Transit Vehicle Drive Train Suspension (0.4)	0.4
Diesel 079, Transit Vehicle Wheelchair Lifts (0.2)	0.2
Diesel 080, Transit Vehicle Air Brake Systems (0.3)	0.3
Diesel 095, Diesel Lab Experience (0.5-4)	0.5-4
English N60, Basics of Effective Writing (3)	3
Reading N90, College Reading (3)	3
Mathematics N06, Essential Mathematics (3)	3
Communication Studies 101, Introduction to Interpersonal Communication (3)	3
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	3
Manufacturing Technology 053, Technical Mathematics (3)	3
Manufacturing Technology 188, Machine Technology Survey (3)	3
Total	36.5



Mid-Range Engine Service Option Degree (sac.dslmr.as)

In addition to the general education requirements, the associate degree curriculum in mid-range diesel engine service is designed to prepare students with knowledge and skills applicable to light to medium-duty diesel engines mass-produced in the trucking industry. Experience will be acquired in domestic and foreign versions of these engines. Students currently in the trade working on medium-duty gasoline engines or new students entering in the trade will benefit from this training.

Major requirements for the associate degree:

Course	Units
Diesel 025, Diesel and Heavy Duty Vehicle Engine Overhaul	8
Diesel 008, Oxyacetylene-Arc Welding	3
Diesel 021, Mid-Range Diesel Engine Service	4.5
Diesel 040, Diesel Electrical Systems	5
Electives	3
Total	23.5

Select electives from the following list:

Business 170; Communication Studies 101 or 101H; Diesel 022, 024, 076, 095; English *N60; Mathematics *N05A*, N05B*, N05C, 053; Manufacturing Technology 188; Reading *N90AB.

*Courses which have an "N" preceding the number may be required for the major, but are not applicable to the 60 units required for the degree.

Mid-Range Engine Service Option Certificate (Transcripted) (sac.dslmr.ca)

The certificate curriculum in mid-range diesel engine service is designed to prepare students with knowledge and skills applicable to light to medium-duty diesel engines mass-produced in the trucking industry. Experience will be acquired in domestic and foreign versions of these engines. Students currently in the trade working on medium-duty gasoline engines or new students entering in the trade will benefit from this training.

Major requirements for the certificate:

Course	Units
Diesel 025, Diesel and Heavy Duty Vehicle Engine Overhaul	8
Diesel 008, Oxyacetylene-Arc Welding	3
Diesel 021, Mid-Range Diesel Engine Service	4.5
Diesel 040, Diesel Electrical Systems	5
Electives	3
Total	23.5

Select electives from the following list:

Business 170; Communication Studies 101 or 101H; Diesel 022, 024, 076, 095; English *N60; Mathematics *N06; Manufacturing Technology 188; Reading *N90.

Transport Refrigeration/Temperature Control Option Certificate (Untranscripted) (sac.dsltr.cert)

The certificate curriculum in transport refrigeration is designed to prepare students to enter the field as an apprentice or helper service technician. The factory approved course work provides training in the service, repair, and troubleshooting techniques of Carrier Transicold and Thermo King truck and trailer refrigeration units. The course work is made up of lecture and lab performances on current production units, covering the refrigeration and electrical systems used to control the unit's operation to maintain desired product temperature to protect the consumer's health. Employment opportunities for men and women exist in this rapidly expanding field.

Major requirements for the certificate:

Course	Units
Diesel 021, Mid-Range Diesel Engine Service	4.5
Diesel 032, Diesel Fuel Injection Systems Service	5
Diesel 040, Diesel Electrical Systems	5
Diesel 050, Transport Refrigeration (8) —OR—	4-8
Diesel 055, Marine Container Refrigeration (4)	
Total	18.5-22.5

Drafting Technology

(See *Engineering*.)

Dressmaking and Alterations

(See *Fashion Design and Custom Clothing*.)

EARTH SCIENCE

Earth Science Degree (sac.es.aa)

The associate degree curriculum in earth science prepares students for transfer to a four-year institution leading to a baccalaureate degree in Earth Science or Geology. Please consult a SAC counselor for information about course requirements for particular four-year institutions. A baccalaureate degree in Earth Sciences may provide the recommended content preparation for students interested in teaching science at the middle school level or are planning to go to law school in the area of environmental law or public policy. Students may also gain skills necessary for opportunities with geotechnical or environmental consulting firms or with government agencies such as the National Park Service.

Major requirements for the associate in arts degree:

Course	Units
Astronomy 110, Introduction to Stars and Galaxies	3
Astronomy 140, Astronomy Laboratory	1
Chemistry 209, Introduction to Chemistry —OR—	4
Chemistry/Physical Science 115, Physical Science for Educators*	
Earth Science 115, Earth Science for Educators* —OR—	
Geology 101, Introduction to Geology —AND—	4
Geology 101L, Introduction to Geology Laboratory	
Geology/Environmental Studies 140, Environmental Geology	3
Geology/Earth Science 150, Introduction to Oceanography —OR—	3
Geology/Earth Science 150H, Honors Introduction to Oceanography	
Geology 201, Introduction to Historical Geology	4
Electives	2
Total	24

Electives: Geology 111, 112, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 176

* Recommended courses for those preparing to teach middle school science.

ECONOMICS

Economics Degree (sac.econ.aa)

The associate degree curriculum in economics is a program of basic courses which enable students to move into a curriculum in a four-year institution leading to a baccalaureate degree. Economics prepares the student for a number of career opportunities such as accounting and marketing in the areas of business, government and teaching.



Major requirements for the associate in arts degree:

Course	Units
Accounting 101, Financial Accounting —OR—	4
Accounting 101H, Honors Financial Accounting	
Accounting 102, Managerial Accounting —OR—	4
Accounting 102H, Honors Managerial Accounting	
Economics 120, Principles/Macro	3
Economics 121, Principles/Micro	3
**Social Science 219, Statistics and Probability —OR—	4
**Social Science 219H, Honors Statistics and Probability	
Business 150, Introduction to Computing and Application Software —OR—	4
*Mathematics 145, Finite Mathematics	

*Mathematics course chosen should be determined by the requirements of the intended upper-division school of the student's choice. **

Social Science 219/219H is alternately listed as Mathematics 219/219H.

Recommended electives: Business 101, 102, 120.

EDUCATION

**Option 1
Elementary Education Degree (Pre-Professional)
(sac.educe.aa)**

The Associate in Arts degree in Elementary Education (Pre-Professional) is designed to prepare students for transfer to a four-year university to obtain a bachelor's degree and multiple subject teaching credential. Completion of the courses in this degree will partially satisfy requirements for California State University integrated and traditional teacher preparation programs. The courses are part of the curriculum that can be started at the community college and completed at the university. The curriculum is designed for students who seek the pre-professional subject matter preparation for elementary school teaching consistent with the standards established by the California Commission on Teacher Credentialing. Additionally, the degree curriculum may also serve as preparation for paraprofessional positions in the K-12 classroom setting by satisfying unit requirements as established by law.

Major requirements for the associate degree:

Course	Units
Education 100, Introduction to Education	3
Human Development 107, Child Growth and Development (DS1) —OR—	3
Psychology 157, Introduction to Child Psychology	
Biology 115, Concepts in Biology for Educators —OR—	4
Earth Science 115, Earth Science for Educators —OR—	
Physical Science 115, Concepts in Physical Sciences for Educators —OR—	
Chemistry 115, Concepts in Physical Science for Educators	
Mathematics 105, Mathematics for Liberal Arts Students (3) —OR—	3-4
Mathematics 204, Mathematical Concepts for Elementary School Teachers (4)	
English 270, Children's Literature	3
History 120, The United States to 1865 —OR—	3
History 120H, Honors The United States to 1865	
History 118, Social and Cultural History of the United States —OR—	
Political Science 101, Introduction to American Government —OR—	
Political Science 101H, Honors Introduction to American Government	3
Geography 100, World Regional Geography —OR—	
Geography 100H, Honors World Regional Geography	

Art 100, Introduction to Art Concepts —OR—	
Art 100H, Honors Introduction to Art Concepts —OR—	
Art 101, Survey of Western Art History I: Prehistory through the Middle Ages —OR—	
Art 102, Survey of Western Art History II: Renaissance through the Twentieth Century —OR—	
Dance 100, Dance History and Appreciation —OR—	
Dance 100H, Honors Dance History and Appreciation	3
Dance 102, Introduction to Dance Forms —OR—	
Music 101, Music Appreciation —OR—	
Music 101H, Honors Music Appreciation —OR—	
Theatre Arts 100, Introduction to Theatre	

And ONE of the Following: 3

- Communication Studies 102, Public Speaking (3)
- Interdisciplinary Studies 200, Introduction to Liberal Studies (3)
- English 206, Introduction to Language Structure and Use (3)
- Anthropology 104, Language and Culture (3)
- Anthropology 104H, Honors Language and Culture (3)
- History 133, History of California (3)
- Human Development 110, Child, Family and Community (DS2)(3)
- Human Development 205, Exceptionality and Special Needs in Human Development (3)
- Kinesiology Professional 140, Movement Education for Elementary School Children (3)
- Education 205, Personal Proficiency in Educational Technologies for Elementary Teachers (3)

Total 28-29

**Option 2
Associate in Arts in Elementary Teacher Education
for Transfer (sac.eted.aat)**

The Associate in Arts in Elementary Teacher Education for Transfer (A.A.-T) prepares students to transfer into the CSU system to complete a baccalaureate degree in Liberal Studies and into a multiple subject teaching credential program. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Liberal Studies major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Elementary Teacher Education, students will have a strong foundation in introductory content area subject matter requirements for teaching at the elementary school level. Students will also have the opportunity to participate in supervised fieldwork in K-12 settings.

Course	Units
Education 100, Introduction to Education	3
Earth Science 115, Earth Science for Educators	4
Communication Studies 102, Public Speaking	3
English 101, Freshman Composition —OR—	4
English 101H, Honors Freshman Composition	
Chemistry 115, Concepts in Physical Science for Educators —OR—	4
Physical Science 115, Concepts in Physical Science for Educators	
Biology 115, Concepts in Biology for Educators (4) —OR—	
Biology 109, Fundamentals of Biology (3) —OR—	3-4
Biology 109H, Honors Fundamentals of Biology (3) —AND—	
Biology 109L, Fundamentals of Biology Lab	1
Mathematics 204, Mathematical Concepts for Elementary School Teachers (4)	



History 101, World Civilizations to the 16th Century —OR—	3
History 101H, Honors World Civilizations to the 16th Century	
English 102, Literature and Composition —OR—	4
English 102H, Honors Literature and Composition	
Geography 100, World Regional Geography —OR—	3
Geography 100H, Honors World Regional Geography	
Political Science 101, Introduction to American Government —OR—	3
Political Science 101H, Honors Introduction to American Government	
History 120, The United States to 1865 —OR—	3
History 120H, Honors The United States to 1865	
Human Development 107, Child Growth and Development OR —OR—	3
Psychology 157, Introduction to Child Psychology	
Select ONE of the Following:	4
English 103, Critical Thinking and Writing (4) —OR—	
English 103H, Honors Critical Thinking and Writing (4)	
Philosophy 110, Critical Thinking (4) —OR—	
Philosophy 110H, Honors Critical Thinking (4)	
Select ONE of the Following:	3
Art 100, Introduction to Art Concepts (3) —OR—	
Art 100H, Introduction to Art Concepts (3)	
Dance 100, Dance History and Appreciation (3) —OR—	
Dance 100H, Dance History and Appreciation (3)	
Dance 102, Introduction to Dance Forms (3)	
Music 101, Music Appreciation (3) —OR—	
Music 101H, Music Appreciation (3)	
Theater Arts 100, Introduction to Theater (3)	
Up to 12 units including any course(s) not selected above:	12
Interdisciplinary Studies 200, Introduction to Liberal Studies (3)	
English 206, Introduction to Language Structure and Use (3) —OR—	
English 104, Language and Culture (3) —OR—	
English 104H, Honors Language and Culture (3) —OR—	
Anthropology 104, Language and Culture (3) —OR—	
Anthropology 104H, Honors Language and Culture (3)	
English 270, Children's Literature (3)	
English 231, Survey of English Literature (3)	
English 232, Survey of English Literature (3)	
English 241, Survey of American Literature 1600-1865 (3)	
English 242, Survey of American Literature 1865-Present (3)	
English 271, Survey of World Literature (3)	
English 272, Survey of World Literature (3)	
Ethnic Studies 101, Introduction to Ethnic Studies (3) —OR—	
Ethnic Studies 101H, Honors Introduction to Ethnic Studies (3)	
Mathematics 105, Math for Liberal Arts Students (3)	
Philosophy 106, Introduction to Philosophy (3) —OR—	
Philosophy 106H, Honors Introduction to Philosophy (3)	
Philosophy 108, Ethics (3)	
Philosophy 112, World Religions (3)	
Education 204, Personal Proficiency in Educational Technology for Secondary Teachers (3)	
Education 205, Personal Proficiency in Educational Technology for Elementary Teachers (3)	
Geography 102, Cultural Geography (3) —OR—	
Geography 102H, Honors Cultural Geography (3)	
Kinesiology Professional 140, Movement Education for Elementary School Children (3)	
Total	58

After School Program Assistant Certificate (Untranscribed) (sac.educa.cert)

The After School Program Assistant Certificate is intended to prepare a student for an entry-level position requiring practical skills and knowledge to work with K-12 children in an after-school care, tutoring, or mentoring program. It will also orient students toward further opportunities in higher education.

Requirements for the After School Program Assistant Certificate:

Course	Units
Human Development 113, Tutoring Reading in Elementary Schools	1
Counseling/Human Development 114, Careers in Teaching	1
Counseling 106, Inquiries into Higher Education	1
Human Development 120, Development of the School Age Child	3
Human Development 121, School Age Child Care Activities	3
Mathematics 060, Elementary Algebra*	4
English 061, Introduction to Composition*	3
Total	16

* Successful course completion or test score

After School Program Associate Teacher Certificate (Untranscribed) (sac.educt.cert)

The After School Program Associate Teacher Certificate is intended to provide students with skills necessary to work with K-12 students in an after-school setting, provide tutoring / homework assistance, or assist in academic enrichment programs. Completion of the required courses for this certificate plus 50 days of experience (minimum of 3 hours per day) qualify for the school-age emphasis for the State Child Development Associate Teacher Permit.

Requirements for the After School Program Associate Teacher Certificate:

Course	Units
Human Development 107, Child Growth and Development (DS1) —OR—	3
Psychology 157, Introduction to Child Psychology	
Human Development 110, Child, Family and Community (DS2)	3
Human Development 113, Tutoring Reading in Elementary Schools	1
Counseling 114, Careers in Teaching —OR—	1
Human Development 114, Careers in Teaching	
Human Development 121, School Age Child Care Activities (DS5)	3
Human Development 205, Exceptionality and Special Needs in Human Development	3
Dance 102, Introduction to Dance Forms —OR—	
Communication Studies 102, Public Speaking —OR—	3
Kinesiology Professional 140, Movement Education for Elementary School Children	
Total	17

Education-Special Education Paraprofessional/Instructional Assistant Certificate (Transcribed) (sac.hudse.ca)

This certificate program, Special Education Paraprofessional/Instructional Assistant, supports the current requirements of federal legislation that all paraprofessionals/instructional assistants/aides, teacher assistants in Title I schools be "highly qualified." The successful completion of this certificate will prepare the student for an entry-level position requiring practical skills and knowledge to work with persons with disabilities in a variety of educational and rehabilitation settings. In addition, the courses introduce the student to career opportunities in special education or other disability-related fields and provide preparation for transfer to four-year institutions to continue a course of study in special education.



Major requirements for the associate degree and certificate:

Course	Units
Counseling 150, Introduction to Human Services	3
Education 209, Roles and Responsibilities of the Special Education Paraprofessional	3
Education 211, Classroom Practices for Diverse Learners	3
Human Development 107, Child Growth and Development (DS1) —OR—	3
Psychology 157, Introduction to Child Psychology	3
Human Development 205, Exceptionality and Special Needs in Human Development	3
Human Development 208, Working with Families of Children with Special Needs	3
Total	18

ENGINEERING

Engineering Degree (sac.enr.as)

The associate degree curriculum in the engineering program is primarily intended to provide a basic program of engineering courses for students planning to transfer to four-year college or university engineering programs.

The student should be aware the Santa Ana College associate degree requirements are less than full university lower-division engineering requirements and that additional coursework is required. See “Engineering Transfer,” below.

Completion of the associate degree in engineering can also provide the necessary background for immediate employment as a designer, technician, or engineering assistant. Job opportunities exist in both private industry and city, county, and state agencies.

Students interested in the design or practical phases of the engineering profession should take the engineering sequence 122, 124, and 228. These are transferable college or university level courses, giving students a comprehensive preparation in graphic communication and graphic solution of engineering problems. Students interested in the math and science-oriented engineering fields should take Engineering 125.

Major requirements for the associate degree:

Course	Units
Engineering 100A, Introduction to Engineering	2
Engineering 122, Engineering Drawing —OR—	3
Engineering 125, Engineering Graphics	3
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 235, Statics	3
Mathematics 180, Analytic Geometry and Calculus I —OR—	4
Mathematics 180H, Honors Analytic Geometry and Calculus	4
Mathematics 185, Analytic Geometry and Calculus II	4
Physics 217, Engineering Physics I	4
Physics 227, Engineering Physics II —OR—	4
Physics 237, Engineering Physics III	4
Chemistry 219, General Chemistry —OR—	5
Chemistry 219H, Honors General Chemistry	5
Total	32

Engineering Transfer

Santa Ana College offers a wide variety of lower-division engineering coursework for transfer to any four-year university or college in California.

Although lower-division engineering course requirements are similar at most universities, important differences do occur. These differences depend upon the university and the specific engineering option the student has selected. Engineering students planning to transfer with upper-division standing at a university should contact the Transfer Center for detailed information concerning specific lower-division course requirements for the various engineering options.

Engineering Technology, Manufacturing Technology, and Industrial Technology Transfer

Technology programs are offered by most area universities. They are bachelor degree curriculums usually offered by the school’s Engineering Department. Generally, technology degree programs are less rigorous than traditional engineering programs. Typically, they require one or two semesters of mathematics and one semester of physics. Upper division work is more practical application-oriented than traditional engineering programs.

Additional details concerning technology program transfer are available from the counseling and engineering offices.

Engineering Civil Technology Degree (sac.enrct.as) and Certificate (sac.enrct.ca)

The associate degree and certificate curriculum provides a background for employment in a civil engineering office or for field work in support of and under the direction of a professional engineer or licensed surveyor. Typical employment is in a surveying office recording data, preparing subdivision maps, street and highway proposals, and grading maps. Employment opportunities exist in both private industry and local and county government agencies that employ engineering assistants.

Major requirements for the associate degree and certificate:

Course	Units
Engineering 100B, Introduction to Architecture/ Civil Engineering/Construction (AEC)	2
Engineering 118, Plane Surveying	4
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 184, AutoCAD II-Computer Aided Drafting	3
Engineering 191, Civil CAD Concepts	3
Geology 101, Introduction to Geology	3
Geology 101L, Introduction to Geology Laboratory	1
Mathematics 160, Trigonometry	4
Select ONE of the Following:	
Engineering 122, Engineering Drawing —OR—	3
Engineering 125, Engineering Graphics	3
Select ONE of the Following:	
Engineering 119, Advanced Plane Surveying (4) —OR—	3-4
Engineering 205, Civil Digital Computations (3)	3
Total	29-30

Engineering Computer Aided Drafting and Design Degree (sac.enrca.as)

The Engineering Computer Aided Drafting and Design degree program is for students who have or are working toward an engineering discipline background for transfer or employment and seek competency in Computer Aided parametric 2D and 3D drafting and design. Class problems and project work includes civil, surveying, mechanical, electronic, architecture, and other CADD applications.



Major requirements for the associate degree:

Core Courses	Units
Engineering 100A, Introduction to Engineering —OR—	2
Engineering 100B, Introduction to Architecture/ Civil Engineering/Construction (AEC)	
Engineering 122, Engineering Drawing —OR—	3
Engineering 125, Engineering Graphics	
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 184, AutoCAD II-Computer Aided Drafting	3
Engineering 185, AutoCAD III-Computer Aided Drafting	3
Engineering 186, AutoCAD 3-Dimensional Drawing	3
Engineering 103, Solidworks Basic Solid Modeling	3
Engineering 154, Architecture/Civil Engineering/Construction (AEC) Parametric and BIM Applications	4

Students may also wish to take other Engineering courses from the following recommended list:

Engineering 012, AEC Blueprint Reading (3)	
Engineering 027, Electronic Drafting (3)	
Engineering 051, Basic Technical Drawing (3)	
Engineering 110, Advanced CAD Applications (0.5-4)	
Engineering 114, Geometric Dimensioning and Tolerancing (3)	
Engineering 115, Cooperative Work Experience Education- Occupational (1-16)	
Engineering 124, Advanced Drawing (3)	
Engineering 130A, CATIA Solid Modeling I (3)	
Engineering 130B, CATIA Solid Modeling II (3)	
Engineering 140A, Creo Beginning Solid Modeling (3)	
Engineering 140B, Creo Intermediate Solid Modeling (3)	
Engineering 142, Architecture/Civil Engineering/Construction (AEC) Drafting Standards (4)	
Engineering 187, Advanced 3D AutoCAD (3)	
Engineering 191, Civil CAD Concepts (3)	
Engineering 193, MicroStation 3D (3)	
Total	24

Engineering Computer Aided Drafting and Design Certificate (Transcribed) (sac.enrca.ca)

The certificate program is for students who have or are working toward an engineering discipline background, and seek competency in Computer Aided parametric 2D and 3D drafting and design. Class problems and project work include civil, surveying, mechanical, electronic, architecture, and other CADD applications.

Core Courses	Units
Engineering 100A, Introduction to Engineering —OR—	2
Engineering 100B, Introduction to Architecture/ Civil Engineering/Construction (AEC)	
Engineering 122, Engineering Drawing —OR—	3
Engineering 125, Engineering Graphics	
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 184, AutoCAD II-Computer Aided Drafting	3
Engineering 185, AutoCAD III-Computer Aided Drafting	3
Engineering 186, AutoCAD 3-Dimensional Drawing	3
Engineering 103, Solidworks Basic Solid Modeling	3
Engineering 154, Architecture/Civil Engineering/Construction (AEC) Parametric and BIM Applications	4

Students may also wish to take other engineering courses from the following recommended list:

Engineering 012, AEC Blueprint Reading (3)	
Engineering 027, Electronic Drafting (3)	
Engineering 051, Basic Technical Drawing (3)	
Engineering 110, Advanced CAD Applications (0.5-4)	
Engineering 114, Geometric Dimensioning and Tolerancing (3)	
Engineering 115, Cooperative Work Experience Education- Occupational (1-16)	
Engineering 124, Advanced Drawing (3)	
Engineering 130A, CATIA Solid Modeling I (3)	
Engineering 130B, CATIA Solid Modeling II (3)	
Engineering 140A, Creo Beginning Solid Modeling (3)	
Engineering 140B, Creo Intermediate Solid Modeling (3)	
Engineering 142, Architecture/Civil Engineering/Construction (AEC) Drafting Standards (4)	
Engineering 187, Advanced 3D AutoCAD (3)	
Engineering 191, Civil CAD Concepts (3)	
Engineering 193, MicroStation 3D (3)	
Total	24

Engineering Drafting and Design Option I-Engineering Drafting and Design Degree (sac.enrdd.as)

The associate degree curriculum in engineering drafting and design has two options to prepare a student for employment in an engineering, architectural, civil engineering, or a construction office as a drafter, designer, or an engineering technician. Actual work in this field for both options is similar. Job tasks include preparation of drawings and plans (board and computer), sketches, layouts, diagrams, schematics, illustrations, material lists, and size and material specifications. Opportunity for employment exists in both private industry and city and county government agencies which employ drafters, designers, and engineering technicians.

The Option I degree prepares the student for employment as a professional drafter/designer in the mechanical, aerospace, manufacturing, biomedical, or industrial engineering fields. Many courses are applicable to lower-division preparation leading to a bachelor's degree in engineering technology at a four-year institution

Major requirements for the associate in science degree:

Course	Units
Engineering 100A, Introduction to Engineering	2
Engineering 122, Engineering Drawing —OR—	3
Engineering 125, Engineering Graphics	
Engineering 124, Advanced Drawing	3
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 130A, CATIA Solid Modeling I —OR—	3
Engineering 140A, Creo Beginning Solid Modeling	
Engineering 188, Machine Technology Survey	3

Select six (6) additional units from the following list:

Engineering 027, Electronic Drafting (3)	
Engineering 051, Basic Technical Drawing (3)	
Engineering 110, Advanced CAD Applications (0.5-4)	
Engineering 114, Geometric Dimensioning and Tolerancing (3)	
Engineering 130A, CATIA Solid Modeling I (3)	
Engineering 130B, CATIA Solid Modeling II (3)	
Engineering 140A, Creo Beginning Solid Modeling (3)	
Engineering 140B, Creo Intermediate Solid Modeling (3)	
Manufacturing Technology, 028 Basic Metals Technology (3)	
Mathematics 160, Trigonometry (4)	
Total	23



Engineering Drafting and Design Option I— Engineering Drafting and Design Certificate (Transcripted) (sac.enrdd.ca)

The certificate curriculum in engineering drafting and design has two options to prepare a student for employment in an engineering, architectural, civil engineering, or a construction office as a drafter, designer, or an engineering technician. Actual work in this field for both options is similar. Job tasks include preparation of drawings and plans (board and computer), sketches, layouts, diagrams, schematics, illustrations, material lists, and size and material specifications. Opportunity for employment exists in both private industry and city and county government agencies which employ drafters, designers, and engineering technicians.

The Option I certificate prepares the student for employment as a professional drafter or designer in the mechanical, aerospace, manufacturing, biomedical, or industrial engineering fields. Many courses are applicable to lower-division preparation leading to a bachelor's degree in engineering technology at a four-year institution.

Major requirements for the certificate:

Course	Units
Engineering 100A, Introduction to Engineering	2
Engineering 122, Engineering Drawing	3
—OR—	
Engineering 125, Engineering Graphics	3
Engineering 124, Advanced Drawing	3
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 130A, CATIA Solid Modeling I	3
—OR—	
Engineering 140A, Creo Beginning Solid Modeling	3
Engineering 188, Machine Technology Survey	3
Select six (6) additional units from the following list:	6
Engineering 027, Electronic Drafting (3)	
Engineering 051, Basic Technical Drawing (3)	
Engineering 110, Advanced CAD Applications (0.5-4)	
Engineering 114, Geometric Dimensioning and Tolerancing (3)	
Engineering 130A, CATIA Solid Modeling I (3)	
Engineering 130B, CATIA Solid Modeling II (3)	
Engineering 140A, Creo Beginning Solid Modeling (3)	
Engineering 140B, Creo Intermediate Solid Modeling (3)	
Manufacturing Technology 028, Basic Metals Technology (3)	
Mathematics 160, Trigonometry (4)	
Total	23

Engineering Drafting and Design Degree Option II— Architectural/Civil Engineering/Construction Drafting and Design Degree (sac.enrce.as)

This option is designed specifically to prepare the student for employment as a professional drafter/designer in the Architectural, Civil Engineering and Construction fields (AEC). The drafter/designer works closely with the architect, developer and other professionals in the development and construction of AEC projects.

Major requirements for the associate degree:

Course	Units
Engineering 100B, Introduction to Architecture/Civil Engineering/Construction (AEC)	2
Engineering 112, Society and the Built Environment	3
Engineering 142, Architecture/Engineering/Construction Drafting Standards	4
Engineering 154, Architecture/Civil Engineering/Construction (AEC) Parametric and BIM Applications	4
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 184, AutoCAD II-Computer Aided Drafting	3
Engineering 186, AutoCAD 3-Dimensional Drawing	3
Engineering 201, Architectural Practice	4
Total	26

Engineering Drafting and Design Certificate: Option II—Architectural/Civil Engineering/ Construction Drafting and Design Degree (Transcripted) (sac.enrce.ca)

This option is designed specifically to prepare the student for employment as a professional drafter/designer in the Architectural, Civil Engineering and Construction fields (AEC). The drafter/designer works closely with the architect, developer and other professionals in the development and construction of AEC projects.

Major requirements for the certificate:

Course	Units
Engineering 100B, Introduction to Architecture/Civil Engineering/Construction (AEC)	2
Engineering 112, Society and the Built Environment	3
Engineering 142, Architecture/Engineering/Construction Drafting Standards	4
Engineering 154, Architecture/Civil Engineering/Construction (AEC) Parametric and BIM Applications	4
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 184, AutoCAD II-Computer Aided Drafting	3
Engineering 186, AutoCAD 3-Dimensional Drawing	3
Engineering 201, Architectural Practice	4
Total	26

Mechanical 3D Solid Modeling CAD Certificate (Untranscripted) (sac.engr3d.cert)

Curriculum focuses on developing competency in parametric solid modeling CAD software that is used heavily in the mechanical, aerospace, industrial, and biomedical engineering fields. Skillsets learned are applicable to drafters, designers, engineering technicians, and engineers in these fields.

Major requirements for the certificate:

Course	Units
Engineering 103, Solidworks Basic Solid Modeling	3
Engineering 104, Solidworks Intermediate Solid Modeling	3
Engineering 122, Engineering Drawing	3
—OR—	
Engineering 125, Engineering Graphics	3
Select 2 courses from the following:	6
Engineering 130A, CATIA Solid Modeling I (3)	
—AND—	
Engineering 130B, CATIA Solid Modeling II (3)	
—OR—	
Engineering 140A, Creo Beginning Solid Modeling (3)	
—AND—	
Engineering 140B, Creo Intermediate Solid Modeling (3)	
Total	15



Engineering Industrial Technology Degree (sac.enrit.as)

The associate degree curriculum in Engineering Industrial Technology leads to employment as a mechanical, industrial, or manufacturing technician and supervisor. Opportunities for employment exist primarily in private manufacturing industries in areas such as production planning, quality control, inspection and testing, and production supervision.

Major requirements for the associate degree:

Course	Units
Engineering 100A, Introduction to Engineering	2
Engineering 122, Engineering Drawing —OR—	3
Engineering 125, Engineering Graphics	
Engineering 130A, CATIA Solid Modeling I —OR—	3
Engineering 140A, Creo Beginning Solid Modeling	
Engineering 132, Introduction to Robotics	3
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 188, Machine Technology Survey	3
Manufacturing Technology 028, Basic Metals Technology	3
Physics 217, Engineering Physics I —OR—	4
Physics 279, College Physics I	

Select 3 units from the following list:

Business 120, Principles of Management (3)	3
Engineering 110, Advanced CAD Applications (0.5-4)	
Engineering 114, Geometric Dimensioning and Tolerancing (3)	
Engineering 124, Advanced Drawing (3)	
Engineering 130B, CATIA Solid Modeling II (3)	
Engineering 140B, Creo Intermediate Solid Modeling (3)	
Engineering 228, Descriptive Geometry (3)	
Engineering 240, Dynamics (3)	
Engineering 250, Electric Circuits (3)	
Engineering 250L, Electric Circuits Laboratory (1)	
Engineering 281, Properties of Engineering Materials (3)	
Management 122, Business Communications (3)	
Total	27

Engineering Industrial Technology Certificate (Transcripted) (sac.enrit.ca)

The certificate curriculum in Engineering Industrial Technology leads to employment as a mechanical, industrial, or manufacturing technician and supervisor. Opportunities for employment exist primarily in private manufacturing industries in areas such as production planning, quality control, inspection and testing, and production supervision.

Major requirements for the certificate:

Course	Units
Engineering 100A, Introduction to Engineering	2
Engineering 122, Engineering Drawing —OR—	3
Engineering 125, Engineering Graphics	
Engineering 130A, CATIA Solid Modeling I —OR—	3
Engineering 140A, Creo Beginning Solid Modeling	
Engineering 132, Introduction to Robotics	3

Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 188, Machine Technology Survey	3
Manufacturing Technology 028, Basic Metals Technology	3
Physics 217, Engineering Physics I —OR—	4
Physics 279, College Physics I	

Select 3 units from the following list:

Business 120, Principles of Management (3)	3
Engineering 110, Advanced CAD Applications (0.5-4)	
Engineering 114, Geometric Dimensioning and Tolerancing (3)	
Engineering 124, Advanced Drawing (3)	
Engineering 130B, CATIA Solid Modeling II (3)	
Engineering 140B, Creo Intermediate Solid Modeling (3)	
Engineering 228, Descriptive Geometry (3)	
Engineering 240, Dynamics (3)	
Engineering 250, Electric Circuits (3)	
Engineering 250L, Electric Circuits Laboratory (1)	
Engineering 281, Properties of Engineering Materials (3)	
Management 122, Business Communications (3)	
Total	27

Energy Analysis Degree (sac.enea.as)

This degree program trains students for work in energy analysis and auditing. Students completing training will be prepared for work performing Title 24 energy calculations or for work in utility companies or private companies that do energy analysis and auditing.

Take each of the following courses:

Course	Units
Engineering 012, AEC Blueprint Reading	3
Engineering 100B, Introduction to Architecture/Civil Engineering/Construction (AEC)	2
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 184, AutoCAD II-Computer Aided Drafting	3
Engineering 165, Introduction to Energy	3
Engineering 175, Introduction to Energy Analysis	3
Total	17

Energy Analysis Certificate (Untranscripted) (sac.enea.cert)

This certificate program trains students for work in energy analysis and auditing. Students completing training will be prepared for work performing Title 24 energy calculations or for work in utility companies, or private companies that do energy analysis and auditing.

Major requirements for the associate degree and certificate:

Course	Units
Engineering 012, AECBlueprint Reading	3
Engineering 100B, Introduction to Architecture/Civil Engineering/Construction (AEC)	2
Engineering 183, AutoCAD I-Computer Aided Drafting	3
Engineering 184, AutoCAD II-Computer Aided Drafting	3
Engineering 165, Introduction to Energy	3
Engineering 175, Introduction to Energy Analysis	3
Total	17

Sustainable Facilities Management Certificate (Untranscripted) (sac.sufac.cert)

The certificate in Sustainable Facilities Management is focused towards training the student in sustainable methods for improving the operational performance of offices, schools, hospitals, and other residential and commercial buildings. It will provide needed skilled and qualified workers, particularly as building technologies become more advanced.



Note: Students must complete the program within 5 years or repeat any AEC courses which were completed more than 5 years prior to graduation. AEC courses subject to this requirement are marked with an asterisk (*).

Requirements for the certificate:

Course	Units
Engineering 142,* Architecture/Civil Engineering/Construction (AEC) Drafting Standards	4
Engineering 143, Fundamentals of Construction	3
Engineering 201,* Architectural Practice	4
Engineering 202, Cost Accounting for Construction Engineering	3
—OR—	
Accounting 202, Cost Accounting for Construction Engineering	3
Engineering 203, Sustainable Construction and Facilities Management	3
Total	17

ENGLISH

Option 1 English Degree (sac.engl.aa)

The associate degree curriculum in English is designed to develop proficiency in written communication and in the understanding of human nature through the study of language and literature. Completion of the degree program prepares students to pursue a major in English leading to a baccalaureate degree.

Major requirements for the associate in arts degree:

Course	Units
English 102, Literature and Composition (4)	4
—OR—	
English 102H, Honors Literature and Composition (4)	6
English 231, Survey of English Literature I (3)	
—OR—	
English 232, Survey of English Literature II (3)	
English 241, Survey of American Literature 1600-1865 (3)	6
—OR—	
English 242, Survey of American Literature, 1865-Present (3)	
English 271, Survey of World Literature I (3)	3
—OR—	
English 272, Survey of World Literature II (3)	3
—AND—	
Electives from list below	12
Total	22

12 units of electives to be selected from any 200 or above English language or literature class including those above not taken as part of the 6-unit requirement.

Note: Students planning to transfer to 4-year schools should consult with English departments at those institutions and/or www.assist.org regarding specific lower division requirements and unit limits.

Option 2 Associate in Arts in English for Transfer (sac.engl.aat)

The Associate in Arts in English for Transfer (A.A.-T in English) prepares students to move into the CSU system leading to a baccalaureate degree in English. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree in English also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in English, students will have demonstrated a general understanding of the academic standards expected of readers and writers of the English language. They will be able to apply critical thinking skills in order to evaluate literary works for their artistic and literary merits as well as analyze them according to various interpretive theories and for the use of literary devices. Students will be able to produce correctly formatted, documented, and cited academic essays that utilize appropriately chosen sources in support of their arguments.

Core Courses (4-8 units) **Units**

Option 1: Select two (8 units)	
English 103, Critical Thinking and Writing (4)	8
—OR—	
English 103H, Honors Critical Thinking and Writing (4)	
English 102, Literature and Composition (4)	
—OR—	4
English 102H, Honors Literature and Composition (4)	

Option 2: Select one (4 units)	
English 102, Literature and Composition (4)	4
—OR—	
English 102H, Honors Literature and Composition (4)	

List A: Select two (6 units)	
English 241, Survey of American Literature 1600-1865 (3)	6
English 242, Survey of American Literature, 1865-Present (3)	
English 231, Survey of English Literature I (3)	
English 232, Survey of English Literature II (3)	
English 271, Survey of World Literature I (3)	
English 272, Survey of World Literature II (3)	

List B: Select courses based on option chosen in Core Courses:

Option 1: 3 units	
Option 2: 6 units	
Any courses from List A not already used.	
English 220, Survey of the Bible as Literature (3)	3-6
English 233A, Shakespeare's Comedies and Romances (3)	
English 233B, Shakespeare's Tragedies and History Plays (3)	
English 233C, Shakespeare's Theatre (3)	
English 243, The Modern American Novel (3)	
English 245, The Image of African Americans in Literature and Films (3)	
English 246, Survey of Chicano Literature (3)	
English 270, Children's Literature (3)	
English 278, Survey of Literature by Women (3)	
English 211, Creative Writing I/Fiction (3)	
—OR—	
English 212, Creative Writing II/Fiction (3)	
—OR—	
English 214, Creative Writing I/Poetry (3)	
—OR—	
English 215, Creative Writing II/Poetry (3)	



List C: Select one (3-5 units)

Any course from List A or B not already used.

English 206, Introduction to Language Structure and Use (3)	
Chinese 101, Elementary Chinese I (5)	
Chinese 102, Elementary Chinese II (5)	
French 101, Elementary French I (5)	
French 102, Elementary French II (5)	
French 201, Intermediate French I (5)	
—OR—	
French 201H, Honors Intermediate French I (5)	
French 202, Intermediate French II (5)	
—OR—	
French 202H, Honors Intermediate French II (5)	
Sign Language 110, American Sign Language I (3)	3-5
Sign Language 111, American Sign Language II (3)	
Sign Language 112, American Sign Language III (3)	
Spanish 101, Elementary Spanish I (5)	
—OR—	
Spanish 101H, Honors Elementary Spanish I (5)	
Spanish 102, Elementary Spanish II (5)	
—OR—	
Spanish 102H, Honors Elementary Spanish II (5)	
Spanish 201, Intermediate Spanish I (5)	
—OR—	
Spanish 201H, Honors Intermediate Spanish I (5)	
Spanish 202, Intermediate Spanish II (5)	
—OR—	
Spanish 202H, Honors Intermediate Spanish II (5)	
Vietnamese 101, Elementary Vietnamese I (5)	
Vietnamese 102, Elementary Vietnamese II (5)	
Communications & Media Studies 121, Introduction to Reporting and Newswriting (3)	
—OR—	
Communications & Media Studies 110, Introduction to Creative Nonfiction (4)	
Business 222, Business Writing (3)	
Communication Studies 152, Oral Interpretation (3)	3-4
Theatre Arts 100, Introduction to Theatre (3)	
Anthropology 104, Language and Culture (3)	
—OR—	
Anthropology 104H, Honors Language and Culture (3)	
—OR—	
English 104, Language and Culture (3)	
—OR—	
English 104H, Honors Language and Culture (3)	
Total	19-22

ENTREPRENEURSHIP

Entrepreneurship and Innovation Degree (sac.entei.aa)

The associate degree in Entrepreneurship and Innovation is designed to give students a thorough understanding of the process of entrepreneurship. It is designed for those who have thought about starting their own ventures, as well as for those new to business. Students learn to develop and commercialize ideas for new ventures. Small business owners learn to develop resources to be more profitable and sustainable. Classes are practical and hands on. They provide real-world exposure to cutting-edge innovation and entrepreneurship. Specialized topics include: building a team, bootstrap marketing, finances and resources, opportunity assessment, design techniques, powerful presentations and more. Many classes are taught in “short sequence formats” of 4-8 weeks.

Core Requirements:

Course	Units
Entrepreneurship 100, Introduction to Innovation and Entrepreneurship	3
Entrepreneurship 101, Entrepreneurs and Success	1
Entrepreneurship 102, Entrepreneurial Ideas and Creativity	1
Entrepreneurship 103, Innovations and Opportunities	2
Entrepreneurship 104, Business Models	2
Entrepreneurship 105, Social Media, Bootstrapping, and Market Validation	2
Entrepreneurship 106, Building an Entrepreneurial Team	2
Entrepreneurship 107, Money, Finance and Accounting for Entrepreneurs	2
Entrepreneurship 108, Business Plans for Entrepreneurs	2
Entrepreneurship 109, Powerful Presentations	2
Choose 1 elective from the following list:	3
Entrepreneurship 110, Capstone Business Simulations (3)	
Entrepreneurship 111, Capstone Entrepreneurial Case Studies (3)	
Business 170, Principles of Small Business Management (3)	
Total	22

Entrepreneurship and Innovation Certificate (Transcripted) (sac.entei.ca)

The certificate in Entrepreneurship and Innovation is designed to give students a thorough understanding of the process of entrepreneurship. It is designed for those who have thought about starting their own ventures, as well as for those new to business. Students learn to develop and commercialize ideas for new ventures. Small business owners learn to develop resources to be more profitable and sustainable. Classes are practical and hands on. They provide real-world exposure to cutting-edge innovation and entrepreneurship. Specialized topics include: building a team, bootstrap marketing, finances and resources, opportunity assessment, design techniques, powerful presentations and more. Many classes are taught in “short sequence formats” of 4-8 weeks.

Core Course Requirements:

Course	Units
Entrepreneurship 100, Introduction to Innovation and Entrepreneurship	3
Entrepreneurship 101, Entrepreneurs and Success	1
Entrepreneurship 102, Entrepreneurial Ideas and Creativity	1
Entrepreneurship 103, Innovations and Opportunities	2
Entrepreneurship 104, Business Models	2
Entrepreneurship 105, Social Media, Bootstrapping, and Market Validation	2
Entrepreneurship 106, Building an Entrepreneurial Team	2
Entrepreneurship 107, Money, Finance and Accounting for Entrepreneurs	2
Entrepreneurship 108, Business Plans for Entrepreneurs	2
Entrepreneurship 109, Powerful Presentations	2
Choose 1 elective from the following list:	3
Entrepreneurship 110, Capstone Business Simulations (3)	
Entrepreneurship 111, Capstone Entrepreneurial Case Studies (3)	
Business 170, Principles of Small Business Management (3)	
Total	22



Freelancer Certificate (Untranscribed) ([sac.frlan.cert](#))

The Freelancer certificate is designed to give all students, but especially non-business majors, a boot-camp understanding of business as applied to a freelance independent contractor. It is designed for new grads who want to freelance to start their careers, full-time workers who want to freelance to earn extra money or transition to a new career, laid-off workers, workers leaving full-time jobs, parents who want to freelance for a flexible schedule, people who want to turn their hobbies into profitable freelance ventures, and seniors who freelance to supplement their incomes.

In the classes students learn how to plan and get started, personal and people skills, different business trades and industries, networking and opportunities, how to get and develop customers, where to get money, how to get paid and how to launch a new freelance business. Classes are short one-unit classes. The goal of the certificate is to teach, as quickly as possible, just what someone needs to know to survive in business as a freelancer.

Major requirements for the certificate:

Course	Units
Entrepreneurship 120, Introduction to Working as a Freelance Independent Contractor	1
Entrepreneurship 121, People Skills for the Freelancer	1
Entrepreneurship 122, Opportunities in Freelance Industries and Trades	1
Entrepreneurship 123, Marketing to Attract Customers and Grow Your Freelance Business	1
Entrepreneurship 124, Survival Finance and Accounting for the Freelancer-Show Me the Money	1
Entrepreneurship 125, Launch Your Freelance Business	1
Total	6

ETHNIC STUDIES

Ethnic Studies Degree ([sac.ethn.aa](#))

The associate degree curriculum in ethnic studies is designed to foster individual cultural identity and cross-cultural communication, develop a consciousness about the American pluralistic society and its origins, and provide basic education regarding professional careers involving intercultural relations in fields such as arts, business education, government, health, law, public relations, and public service. Emphasis will be on a cultural survey of Native Americans, Asian Americans, African Americans and Mexican Americans/Latinos from the Pre-Columbian period to the present and the contributions of these ethnic groups to U.S. society. Enrichment and global perspective will be added to majors such as Art, Anthropology, Child Development, Dance, Education, English, Foreign Language, History, Music, Psychology and Sociology. Completion of the degree program prepares students to pursue a major leading to a baccalaureate degree.

Major requirements for the associate in arts degree:

Course	Units
Anthropology 100, Introduction to Cultural Anthropology —OR—	3
Anthropology 100H, Honors Introduction to Cultural Anthropology	
Asian American Studies 101, Introduction to Asian American Studies	3
Black Studies 101, Introduction to Black Studies	3
Chicano Studies 101, Introduction to Chicano Studies	3
Ethnic Studies 101, Introduction to Ethnic Studies —OR—	3
Ethnic Studies 101H, Honors Introduction to Ethnic Studies	
Ethnic Studies 102, The Borderlands: Cultural Context and Intercultural Relations —OR—	3
Ethnic Studies 102H, Honors The Borderlands: Cultural Context and Intercultural Relations	
Psychology 100, Introduction to Psychology —OR—	3
Psychology 100H, Honors Introduction to Psychology (some sections of interest to Black, Asian American, and Chicano Studies)	
A minimum of six (6) units (but, no more than three (3) units from any one discipline) taken from the following list: Anthropology 104 or 104H, 105, 125; Art 103, 104, 106; Dance 105, 112; English 104 or 104H, 245, 246; History 101 or 101H, 102 or 102H, 105, 123, 124 or 124H, 125, 146, 150, 151, 153, 160, 161, 181; Human Development 221; Music 102 or 102H, 103; Sociology 100 or 100H.	

FASHION DESIGN

Fashion Design Degree ([sac.fdc.aa](#))

In addition to the general education requirements, the associate degree curriculum in fashion design provides the basic aesthetic concepts and technical skills necessary for immediate employment in the fashion related fields of design or to transfer to a university program.

The program prepares students for entry-level positions in apparel design for custom clients, theater costuming, and manufacturer's operations.

Completion of the degree enhances ability to obtain a position and advance in the fashion design field.

Major requirements for the associate in arts in Fashion Design are:

Course	Units
Fashion Design Merchandising 100, Introduction to Fashion	3
Fashion Design Merchandising 103, Fashion Selection	3
Fashion Design Merchandising 104, Textile Fibers and Fabrics	3
Fashion Design Merchandising 105A, Beginning Sewing	3
Fashion Design Merchandising 109, Flat Pattern Techniques	3.5
Fashion Design Merchandising 111A, Fashion Illustration Techniques	3
Fashion Design Merchandising 113, Fashion Draping	3.5
Fashion Design Merchandising 213, Apparel Line Production	2
Fashion Design Merchandising 214, Tech-Packs for Manufactured Apparel	2
Fashion Design Merchandising 299, Cooperative Work Experience Education	1-4


Select six (6) units from the following elective courses:

- Fashion Design Merchandising 052, Knit Sewing (2)
- Fashion Design Merchandising 055, Children's Clothing (2)
- Fashion Design Merchandising 056, Basic Sewing and Alternations (1)
- Fashion Design Merchandising 058, Decorative Apparel (0.5)
- Fashion Design Merchandising 101, Buying and Merchandising (3)
- Fashion Design Merchandising 102, Promotion and Coordination (3)
- Fashion Design Merchandising 105B, Intermediate Sewing (2)
- Fashion Design Merchandising 106, Advanced Sewing (3)
- Fashion Design Merchandising 106A, Advanced Sewing I (1.5)
- Fashion Design Merchandising 106B, Advanced Sewing II (1.5)
- Fashion Design Merchandising 107, Custom Tailoring (2)
- Fashion Design Merchandising 125, Display Merchandising (3)
- Fashion Design Merchandising 216, Computer Pattern Design, Grading and Marking (1)

Total 34-37

Fashion Design Certificate (Transcripted) (sac.fdc.ca)

The certificate curriculum in fashion design provides the basic aesthetic concepts and technical skills necessary for immediate employment in the fashion related fields of design.

The program prepares students for entry-level positions in apparel design for custom clients, theater costuming, and manufacturer's operations.

Completion of the certificate enhances ability to obtain a position and advance in the fashion design field.

Requirements for the certificate:

Course	Units
Fashion Design Merchandising 100, Introduction to Fashion	3
Fashion Design Merchandising 103, Fashion Selection	3
Fashion Design Merchandising 104, Textile Fibers and Fabrics	3
Fashion Design Merchandising 105A, Beginning Sewing	3
Fashion Design Merchandising 109, Flat Pattern Techniques	3.5
Fashion Design Merchandising 111A, Fashion Illustration Techniques	3
Fashion Design Merchandising 113, Fashion Draping	3.5
Fashion Design Merchandising 213, Apparel Line Production	2
Fashion Design Merchandising 214, Tech-Packs for Manufactured Apparel	2
Fashion Design Merchandising 299, Cooperative Work Experience Education	1-4

Select six (6) units from the following elective courses: 6

- Fashion Design Merchandising 052, Knit Sewing (2)
- Fashion Design Merchandising 055, Children's Clothing (2)
- Fashion Design Merchandising 056, Basic Sewing and Alternations (1)
- Fashion Design Merchandising 058, Decorative Apparel (0.5)
- Fashion Design Merchandising 101, Buying and Merchandising (3)
- Fashion Design Merchandising 102, Promotion and Coordination (3)
- Fashion Design Merchandising 105B, Intermediate Sewing (2)
- Fashion Design Merchandising 106, Advanced Sewing (3)
- Fashion Design Merchandising 106A, Advanced Sewing I (1.5)
- Fashion Design Merchandising 106B, Advanced Sewing II (1.5)
- Fashion Design Merchandising 107, Custom Tailoring (2)
- Fashion Design Merchandising 125, Display Merchandising (3)
- Fashion Design Merchandising 216, Computer Pattern Design, Grading and Marking (1)

Total 34-37

6

Fashion Merchandising Degree (sac.fdm.aa)

In addition to the general education requirements, the associate degree curriculum in fashion merchandising is designed to prepare students for a career in the fashion industry or to transfer to a university program.

The program places emphasis on preparing students for entry-level positions in such areas as sales, buying, merchandising, promotion, retail management, styling, and fashion forecasting.

Major requirements for the associate in arts in Merchandising are:

Course	Units
Fashion Design Merchandising 100, Introduction to Fashion	3
Fashion Design Merchandising 101, Buying and Merchandising	3
Fashion Design Merchandising 102, Promotion and Coordination	3
Fashion Design Merchandising 103, Fashion Selection	3
Fashion Design Merchandising 104, Textile Fibers and Fabrics	3
Fashion Design Merchandising 111A, Fashion Illustration Techniques	3
Fashion Design Merchandising 125, Display Merchandising	3
Fashion Design Merchandising 299, Cooperative Work Experience Education	1-4

Select six (6) units from the following electives: 6

- Business 170, Principles of Small Business Management (3)
- Fashion Design Merchandising 055, Children's Clothing (2)
- Fashion Design Merchandising 105A, Beginning Sewing (3)
- Fashion Design Merchandising 107, Custom Tailoring (2)
- Fashion Design Merchandising 109, Flat Pattern Techniques (3.5)
- Fashion Design Merchandising 111A, Fashion Illustration Techniques (3)
- Fashion Design Merchandising 113, Fashion Draping (3.5)
- Fashion Design Merchandising 214, Tech-Packs for Manufactured Apparel (2)

Total 27-30

Fashion Merchandising Certificate (Transcripted) (sac.fdm.ca)

The certificate curriculum in fashion merchandising is designed to prepare students for a career in the fashion industry. The program places emphasis on preparing students to enter entry level positions in such areas as sales, buying, merchandising, promotion, retail management, styling, and fashion forecasting.

Requirements for the certificate are:

Course	Units
Fashion Design Merchandising 100, Introduction to Fashion	3
Fashion Design Merchandising 101, Buying and Merchandising	3
Fashion Design Merchandising 102, Promotion and Coordination	3
Fashion Design Merchandising 103, Fashion Selection	3
Fashion Design Merchandising 104, Textile Fibers and Fabrics	3
Fashion Design Merchandising 111A, Fashion Illustration Techniques	3
Fashion Design Merchandising 125, Display Merchandising	3
Fashion Design Merchandising 299, Cooperative Work Experience Education	1-4

Select six (6) units from the following electives: 6

- Business 170, Principles of Small Business Management (3)
- Fashion Design Merchandising 055, Children's Clothing (2)
- Fashion Design Merchandising 105A, Beginning Sewing (3)
- Fashion Design Merchandising 107, Custom Tailoring (2)
- Fashion Design Merchandising 109, Flat Pattern Techniques (3.5)
- Fashion Design Merchandising 113, Fashion Draping (3.5)
- Fashion Design Merchandising 214, Tech-Packs for Manufactured Apparel (2)

Total 28-31



Apparel Product Development and Technical Design Degree (sac.fdcap.aa)

In addition to the general education requirements, this vocational program provides the technical skills and product background necessary to work in apparel jobs such as pattern making, product development, and technical design in ready-to-wear or theater costumes.

Emphasis is placed on developing vocational skills including computer applications current to fashion design manufacturing.

Major requirements for the associate in arts in Product Development and Technical Design are:

Course	Units
Fashion Design Merchandising 100, Introduction to Fashion	3
Fashion Design Merchandising 103, Fashion Selection	3
Fashion Design Merchandising 104, Textile Fibers and Fabrics	3
Fashion Design Merchandising 105A, Beginning Sewing	3
Fashion Design Merchandising 109, Pattern Design	3.5
Fashion Design Merchandising 111A, Fashion Illustration Techniques	3
Fashion Design Merchandising 113, Fashion Draping	3.5
Fashion Design Merchandising 214, Tech-Packs for Manufactured Apparel	3
Fashion Design Merchandising 216, Computer Pattern Design, Grading and Marking	1
Fashion Design Merchandising 299, Cooperative Work Experience Education	1-4

Course	Units
Select six (6) units from the following elective courses:	6
Fashion Design Merchandising 052, Knit Sewing (2)	
Fashion Design Merchandising 055, Children's Clothing (2)	
Fashion Design Merchandising 056, Basic Sewing and Alternations (1)	
Fashion Design Merchandising 058, Decorative Apparel (0.5)	
Fashion Design Merchandising 101, Buying and Merchandising (3)	
Fashion Design Merchandising 102, Promotion and Coordination (3)	
Fashion Design Merchandising 105B, Intermediate Sewing (2)	
Fashion Design Merchandising 106, Advanced Sewing (3)	
Fashion Design Merchandising 106A, Advanced Sewing I (1.5)	
Fashion Design Merchandising 106B, Advanced Sewing II (1.5)	
Fashion Design Merchandising 107, Custom Tailoring (2)	
Fashion Design Merchandising 125, Display Merchandising (3)	
Fashion Design Merchandising 213, Apparel Line Production (2)	
Total	33-36

Apparel Product Development and Technical Design Certificate (Transcripted) (sac.fdcap.ca)

This certificate program provides the technical skills and product background necessary to work in apparel jobs such as pattern making, product development, and technical design in ready-to-wear or theater costumes.

Emphasis is placed on developing vocational skills including computer applications current to fashion design manufacturing.

Requirements for the certificate are:

Course	Units
Fashion Design Merchandising 100, Introduction to Fashion	3
Fashion Design Merchandising 103, Fashion Selection	3
Fashion Design Merchandising 104, Textile Fibers and Fabrics	3
Fashion Design Merchandising 105A, Beginning Sewing	3
Fashion Design Merchandising 109, Pattern Design	3.5
Fashion Design Merchandising 111A, Fashion Illustration Techniques	3
Fashion Design Merchandising 113, Fashion Draping	3.5
Fashion Design Merchandising 214, Tech-Packs for Manufactured Apparel	3
Fashion Design Merchandising 216, Computer Pattern Design, Grading and Marking	1
Fashion Design Merchandising 299, Cooperative Work Experience Education	1-4

Course	Units
Select six (6) units from the following elective courses:	6
Fashion Design Merchandising 052, Knit Sewing (2)	
Fashion Design Merchandising 055, Children's Clothing (2)	
Fashion Design Merchandising 056, Basic Sewing and Alternations (1)	
Fashion Design Merchandising 058, Decorative Apparel (0.5)	
Fashion Design Merchandising 101, Buying and Merchandising (3)	
Fashion Design Merchandising 102, Promotion and Coordination (3)	
Fashion Design Merchandising 105B, Intermediate Sewing (2)	
Fashion Design Merchandising 106, Advanced Sewing (3)	
Fashion Design Merchandising 106A, Advanced Sewing I (1.5)	
Fashion Design Merchandising 106B, Advanced Sewing II (1.5)	
Fashion Design Merchandising 107, Custom Tailoring (2)	
Fashion Design Merchandising 125, Display Merchandising (3)	
Fashion Design Merchandising 213, Apparel Line Production (2)	
Total	33-36

Dressmaking and Alterations Option Certificate (Transcripted) (sac.fdcda.ca)

The certificate curriculum in dressmaking and alteration prepares students for employment in the alterations department of department stores or for the operation of their own business in dressmaking, tailoring, and alterations.

Certificate option in Dressmaking and Alterations can be earned through the completion of the following required courses:

Course	Units
Fashion Design Merchandising 052, Knit Sewing —OR—	2
Fashion Design Merchandising 055, Children's Clothing	
Fashion Design Merchandising 056, Basic Sewing and Alterations	1
Fashion Design Merchandising 057, Introduction to Pattern Drafting	3.5
Fashion Design Merchandising 103, Fashion Selection	3
Fashion Design Merchandising 105A, Beginning Sewing (3) —OR—	2-3
Fashion Design Merchandising 053, Introduction to Sewing (2)	
Fashion Design Merchandising 105B, Intermediate Sewing	2
Fashion Design Merchandising 106, Advanced Sewing (3) —OR—	
Fashion Design Merchandising 106A, Advanced Sewing I (1.5) —AND—	3
Fashion Design Merchandising 106B, Advanced Sewing II (1.5)	
Fashion Design Merchandising 107, Custom Tailoring	2

**Select 3 or more units from the following:**

Fashion Design Merchandising 058, Decorative Apparel (0.5)	3
Fashion Design Merchandising 102, Promotion and Coordination (3)	
Fashion Design Merchandising 104, Textile Fibers and Fabrics (3)	
Fashion Design Merchandising 109, Pattern Design (3.5)	
Fashion Design Merchandising 113, Fashion Draping (3.5)	
Fashion Design Merchandising 299, Cooperative Work Experience Education (1-4)	
Business 170, Principles of Small Business Management (3)	
Total	22-24

**Electives: Fashion Design Merchandising 005, 098, 198.

FIRE TECHNOLOGY

Administrative Fire Services Chief Officer Degree (sac.ftco.as)

The Administrative Fire Services Chief Officer Degree is designed to prepare students for careers as chief officers. This program meets the requirements of the California Fire Chiefs' Association and the Chief Officer Certification track of the California State Fire Marshal. Transcript evaluation may allow up to a maximum of 18 units of credit for previous fire service education. If Fire Technology 121 is completed as an elective with a "C" or better grade and Fire Technology 121L is completed with a "pass," it may be used to satisfy the requirements for section F of the general education requirements for graduation.

Student must complete the general education requirements as outlined in the appropriate catalog

and

Major requirements for the associate degree:

Course	Units
Fire Officer Training 146, Fire Management 2A: Organizational Development and Human Relations	0.8
Fire Officer Training 147, Fire Management 2B: Fire Service Financial Management	0.8
Fire Officer Training 148, Fire Management 2C: Personnel and Labor Relations	0.8
Fire Officer Training 149, Fire Management 2D: Strategic Planning	0.8
Fire Officer Training 150, Fire Management 2E: Ethics and the Challenge of Leadership	0.8
Fire Officer Training 151, Fire Command 2A: Command Tactics at Major Fires	0.8
Fire Officer Training 152, Fire Command 2B: Management of Major Hazardous Materials Incidents	0.8
Fire Officer Training 153, Fire Command 2C: High-Rise Fire Fighting Tactics	0.8
Fire Officer Training 154, Fire Command 2D: Planning for Large Scale Disasters	0.8
Fire Officer Training 155, Fire Command 2E: Wildland Fire Fighting Tactics	0.8

In addition, select a minimum of 9 units from the following list

(classes in this area may be substituted with similar classes):	9
Fire Technology 101, Fire Protection Organization (3)	
Fire Technology 102, Fire Behavior and Combustion (3)	
Fire Technology 103, Personal Fire Safety (3)	
Fire Technology 104, Fire Prevention Technology (3)	
Fire Technology 105, Building Construction for Fire Protection (3)	
Fire Technology 106, Fire Protection Equipment and Systems (3)	
Fire Technology 121, Physical Fitness for Public Safety Personnel (3)	
Fire Technology 121L, Physical Fitness for Public Safety Personnel - Performance and Assessment (0.3)	
Fire Academy 060, Basic Fire Academy (12)	
Total	17

Administrative Fire Services Chief Officer Certificate (Transcripted) (sac.ftco.ca)

The Administrative Fire Services, Chief Officer Certificate is designed to prepare students for careers as chief officers. This program meets the requirements of the California Fire Chiefs' Association and the Chief Officer Certification track of the California State Fire Marshall.

Major requirements for the certificate:

Course	Units
Fire Officer Training 146, Fire Management 2A: Organizational Development and Human Relations	0.8
Fire Officer Training 147, Fire Management 2B: Fire Service Financial Management	0.8
Fire Officer Training 148, Fire Management 2C: Personnel and Labor Relations	0.8
Fire Officer Training 149, Fire Management 2D: Strategic Planning	0.8
Fire Officer Training 150, Fire Management 2E: Ethics and the Challenge of Leadership	0.8
Fire Officer Training 151, Fire Command 2A: Command Tactics at Major Fires	0.8
Fire Officer Training 152, Fire Command 2B: Management of Major Hazardous Materials Incidents	0.8
Fire Officer Training 153, Fire Command 2C: High-Rise Fire Fighting Tactics	0.8
Fire Officer Training 154, Fire Command 2D: Planning for Large Scale Disasters	0.8
Fire Officer Training 155, Fire Command 2E: Wildland Fire Fighting Tactics	0.8

In addition, select a minimum of 9 units from the following list

(classes in this area may be substituted with similar classes):

Fire Technology 101, Fire Protection Organization (3)	9
Fire Technology 102, Fire Behavior and Combustion (3)	
Fire Technology 103, Personal Fire Safety (3)	
Fire Technology 104, Fire Prevention Technology (3)	
Fire Technology 105, Building Construction for Fire Protection (3)	
Fire Technology 106, Fire Protection Equipment and Systems (3)	
Fire Technology 121, Physical Fitness for Public Safety Personnel (3)	
Fire Technology 121L, Physical Fitness for Public Safety Personnel - Performance and Assessment (0.3)	
Fire Academy 060, Basic Fire Academy (12)	
Total	

Fire Administration Option Degree (sac.ftfa.as)

The degree program in fire administration is designed to prepare students for careers as fire service officers. The program meets requirements of the California State Board of Fire Services Certified Fire Officer and college or university preparation. Transcript evaluation may allow up to a maximum of 18 units of credit for previous fire service education. If Fire Technology 121 is completed as an elective with a "C" or better grade and Fire Technology 121L is completed with a "pass," it may be used to satisfy the requirements of section F of the general education requirements for graduation.

Student must complete the general education requirements as outlined in the appropriate catalog

and

**Major requirements for the associate degree:**

Course	Units
Fire Academy 062, Basic Incident Command Systems	0.3
Fire Academy 062B, ICS-300 Intermediate ICS	0.5
Fire Officer Training 026, Fire Inspector 1A	1.5
Fire Officer Training 027, Fire Inspector 1B: Introduction to Fire and Life Safety	1.5
Fire Officer Training 036, Training Instructor 1A: Cognitive Lesson Delivery	0.8
Fire Officer Training 037, Training Instructor 1B: Psychomotor Lesson Delivery	0.8
Fire Officer Training 044, Fire Investigation 1A: Fire Origin and Cause Determination	0.8
Fire Officer Training 045, Fire Investigation 1B: Techniques of Fire Investigation	0.8
Fire Officer Training 046, Fire Management I: Management/Supervision for Company Officers	0.8
Fire Officer Training 047, Fire Command 1A: Command Principles for Company Officers	0.8
Fire Officer Training 048, Fire Command 1B: Incident Management for Company Officers	0.8
Fire Technology 101, Fire Protection Organization	3

In addition, select a minimum of 9 units from the following list 9
(classes in this area may be substituted with similar classes):

Fire Technology 102, Fire Behavior and Combustion (3)	
Fire Technology 103, Personal Fire Safety (3)	
Fire Technology 104, Fire Prevention Technology (3)	
Fire Technology 105, Building Construction for Fire Protection (3)	
Fire Technology 106, Fire Protection Equipment and Systems (3)	
Fire Technology 121, Physical Fitness for Public Safety Personnel (3)	
Fire Technology 121L, Physical Fitness for Public Safety Personnel – Performance and Assessment (0.3)	
Fire Academy 060, Basic Fire Academy (12)	
Total	21.4

Fire Administration Option Certificate (Transcripted) (sac.ftfa.ca)

The certificate program in fire administration is designed to prepare students for careers as fire service officers. The program meets requirements of the California State Board of Fire Services Certified Fire Officer and college or university preparation. Transcript evaluation may allow up to a maximum of 18 units of credit for previous fire service education.

Course	Units
Fire Academy 062, Basic Incident Command Systems	0.3
Fire Academy 062B, ICS-300 Intermediate ICS	0.5
Fire Officer Training 026, Fire Inspector 1A	1.5
Fire Officer Training 027, Fire Inspector 1B: Introduction to Fire and Life Safety	1.5
Fire Officer Training 036, Training Instructor 1A: Cognitive Lesson Delivery	0.8
Fire Officer Training 037, Training Instructor 1B: Psychomotor Lesson Delivery	0.8
Fire Officer Training 044, Fire Investigation 1A: Fire Origin and Cause Determination	0.8
Fire Officer Training 045, Fire Investigation 1B: Techniques of Fire Investigation	0.8
Fire Officer Training 046, Fire Management I: Management/Supervision for Company Officers	0.8
Fire Officer Training 047, Fire Command 1A: Command Principles for Company Officers	0.8
Fire Officer Training 048, Fire Command 1B: Incident Management for Company Officers	0.8

In addition, select a minimum of 9 units from the following list: 9
(classes in this area may be substituted with similar classes):

Fire Technology 102, Fire Behavior and Combustion (3)	
Fire Technology 103, Personal Fire Safety (3)	
Fire Technology 104, Fire Prevention Technology (3)	
Fire Technology 105, Building Construction for Fire Protection (3)	
Fire Technology 106, Fire Protection Equipment and Systems (3)	
Fire Technology 121, Physical Fitness for Public Safety Personnel (3)	
Fire Technology 121L, Physical Fitness for Public Safety Personnel – Performance and assessment (0.3)	
Fire Academy 060, Basic Fire Academy (12)	
Total	21.4

Fire Prevention Officer Degree (sac.ftpo.as)

The Fire Prevention Officer Degree is designed to prepare students as Fire Protection Engineering Technicians and as staff assistants to Fire Protection Engineers; to enable fire department personnel to upgrade skills in the area of fire prevention; to give architects, engineers and persons from other disciplines an opportunity to expand their knowledge of building, life safety and fire protection. This program meets the requirements of the California State Board of Fire Services Certified Firefighter I and college or university preparation. This degree option does not meet section F of the general education requirements unless Fire Technology 121 is completed as an elective with a “C” or better grade.

Student must complete the general education requirements as outlined in the appropriate catalog.

Major requirements for the associate degree:

Course	Units
Fire Officer Training 026, Fire Inspector 1A	1.5
Fire Officer Training 027, Fire Inspector 1B: Introduction to Fire and Life Safety	1.5
Fire Officer Training 028, Fire Inspector 1C: Field Inspection	1.5
Fire Officer Training 129, Fire Prevention 2A: Fire Protection Systems and Building Components	0.8
Fire Officer Training 132, Fire Prevention 2B: Interpreting the UBC and CCR	0.8
Fire Technology 101, Fire Protection Organization	3
Fire Technology 102, Fire Behavior and Combustion	3
Fire Technology 104, Fire Prevention Technology	3
Fire Technology 105, Building Construction for Fire Protection	3
Fire Technology 106, Fire Protection Equipment and Systems	3
Total	21.1

Fire Prevention Officer Certificate (Untranscripted) (sac.ftpo.cert)

The Fire Prevention Officer Certificate is designed to prepare students as Fire Protection Engineering Technicians and as staff assistants to Fire Protection Engineers; to enable fire department personnel to upgrade skills in the area of prevention; and to give architects, engineers and persons from other disciplines an opportunity to expand their knowledge of building, life safety, and fire protection. This certificate program meets the requirements of the California State Board of Fire Services Certified Firefighter I and college or university preparation.



Course	Units
Fire Officer Training 026, Fire Inspector 1A	1.5
Fire Officer Training 027, Fire Inspector 1B: Introduction to Fire and Life Safety	1.5
Fire Technology 101, Fire Protection Organization	3
Fire Technology 102, Fire Behavior and Combustion	3
Fire Technology 104, Fire Prevention Technology	3
Fire Technology 105, Building Construction for Fire Protection	3
Fire Technology 106, Fire Protection Equipment and Systems	3
Total	18

Public Fire Service Option Degree (sac.ftpfs.as)

The public fire service program is designed to provide occupational preparation in federal, state, local and private fire protection agencies and for those desiring to enter fire service work in such areas as firefighting with emphasis in fire prevention, inspection and safety practices. Completion of the Fire Academy 060 course is recognized by the California State Board of Fire Services as meeting the requirements for Certified Firefighter 1 Training Academy and college and university preparation. The units earned in Fire Academy 060 are nontransferable. Prerequisites to the Basic Fire Academy include: All Fire Technology core courses, meeting the NFPA 1582 medical standards, passing the physical ability test and completing Emergency Medical Technician I course, taking and passing the National EMT Certification Exam and receiving certification in the State of California.

Student must complete the general education requirements as outlined in the appropriate catalog.

Major requirements for the associate degree:

Course	Units
Fire Academy 007, Orientation and Physical Fitness	2.5
Fire Academy 008, Firefighter I Physical Ability Examination	0.1
Fire Academy 060, Basic Fire Academy	12
Fire Technology 101, Fire Protection Organization	3
Fire Technology 102, Fire Behavior and Combustion	3
Fire Technology 103, Personal Fire Safety	3
Fire Technology 104, Fire Prevention Technology	3
Fire Technology 105, Building Construction for Fire Protection	3
Fire Technology 106, Fire Protection Equipment and Systems	3
Fire Technology 121, Physical Fitness for Public Safety Personnel	3
Fire Technology 121L, Physical Fitness for Public Safety Personnel - Performance and Assessment	0.3
Total	35.9

Public Fire Service Option Certificate (Transcripted) (sac.ftpfs.ca)

The public fire service program is designed to provide occupational preparation in federal, state, local, and private fire protection agencies and for those desiring to enter fire service work in such areas as firefighting with emphasis in fire prevention, inspection, and safety practices. Completion of the Fire Academy 060 course is recognized by the California State Board of Fire Services as meeting the requirements for Certified Firefighter 1 Training Academy and college and university preparation. The units earned in The Fire Academy 060 are nontransferable. Prerequisites to the Basic Fire Academy include All Fire Technology core courses, meeting the NFPA 1582 medical standards, passing the physical ability test and completing Emergency Medical Technician I course, taking and passing the National EMT Certification Exam, and receiving certification in the State of California.

Major requirements for the certificate:

Course	Units
Fire Academy 007, Orientation and Physical Fitness	2.5
Fire Academy 008, Firefighter I Physical Ability Examination	0.1
Fire Academy 060, Basic Fire Academy	12
Fire Technology 101, Fire Protection Organization	3
Fire Technology 102, Fire Behavior and Combustion	3
Fire Technology 103, Personal Fire Safety	3
Fire Technology 104, Fire Prevention Technology	3
Fire Technology 105, Building Construction for Fire Protection	3
Fire Technology 106, Fire Protection Equipment and Systems	3
Fire Technology 121, Physical Fitness for Public Safety Personnel	3
Fire Technology 121L, Physical Fitness for Public Safety Personnel - Performance and Assessment	0.3
Total	35.9

FOREIGN LANGUAGES

(See *Modern Languages*)

GEOGRAPHY

Option 1 Geography Degree (sac.geog.aa)

The associate degree curriculum in geography provides students with an interdisciplinary background for entry into a curriculum at a four-year institution leading to a baccalaureate degree with career opportunities in a wide range of jobs in government such as Bureau of Census; C.I.A.; D.E.A.; U.S.G.S.; Department of Immigration; and Naturalization, Department of State; and in private industry such as planning market research, land use analysis, transportation, travel and tourism, and education.

Major requirements for the associate in arts degree:

Course	Units
Geography 100, World Regional Geography —OR—	3
Geography 100H, Honors World Regional Geography	3
Geography 101, Physical Geography	3
Geography 102, Cultural Geography —OR—	3
Geography 102H, Honors Cultural Geography	3
Geography 101L, Physical Geography Lab	1
Total	10

Plus 9 units from electives below, with a minimum of 3 units from Category "A" and 3 units from Category "B".

Category A 9

Anthropology 100 or 100H, 103;
Economics 120, 121;
History 101 or 101H, 102 or 102H, 105, 133, 150, 151, 153;
Interdisciplinary Studies 117H;
Political Science 201, 220.

Category B

Anthropology 101;
Astronomy 109, 150;
Biology 109 or 109H, 127, 128, 129, 130, 131, 132, 133, 134, 135, 169, 170, 179, 200, 212, 214, 259;
Environmental Studies 140, 170, 200, 259;
Geology 101, 101L, 111, 112, 140, 150 or 150H, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 176, 201.

It is strongly recommended that geography majors transferring to the CSU or UC system complete Foreign Language courses at the 201 and 202 level, and/or Social Sciences 219/219H/Mathematics 219/219H.

Total 19



Option 2

Associate in Arts in Geography for Transfer (sac.geog.aat)

The Associate in Arts in Geography for Transfer (A.A.-T) prepares students to move into a curriculum at a 4-year institution leading to a baccalaureate degree in Geography. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Geography major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Geography students will have an understanding of both the breadth and depth of the spatial perspective that is central to geographic study. This knowledge will be grounded in the comprehension of geographic principles, concepts, ideas, theories, research, terminology, and relationships. Students will also have the capacity to write and think in a critical and analytical way about issues pertaining to earth surface study, human/environment interaction and impact, and local, regional, and global relationships and associations.

Required Core (6 units)	Units
Geography 102, Cultural Geography	3
Geography 101, Physical Geography	3

List A - select 6-7 Units	6-7
Geography 101L, Physical Geography Laboratory (1)	
Geography 100, World Regional Geography (3)	
Business 150, Introduction to Geographic Information Systems (3)	

List B - select 6 units	6
Any course not selected in list A above	
Anthropology 100, Introduction to Cultural Anthropology (3)	
—OR—	
Anthropology 100H, Honors Introduction to Cultural Anthropology (3)	
Biology 109, Fundamentals of Biology (3)	
—OR—	
Biology 109H, Honors Fundamentals of Biology (3)	
Biology 109L, Fundamentals of Biology Laboratory (3)	
Biology 211, Cellular and Molecular Biology (5)	
Biology 212, Animal Diversity and Ecology (5)	
Biology 214, Plant Diversity and Evolution (5)	
Chemistry 209, Introductory Chemistry (4)	
Chemistry 219, General Chemistry (5)	
—OR—	
Chemistry 219H, Honors General Chemistry (5)	
Computer Science 105, Visual BASIC Programming (3)	
Computer Science 120, Introduction to Programming (3)	
Computer Science 121, Programming Concepts (3)	
Computer Science 131, Data Structures Concepts (3)	
Earth Science 110, Introduction to Earth Science (3)	
—OR—	
Earth Science 110H, Honors Introduction to Earth Science (3)	
Economics 120, Principles/Macro (3)	
Economics 121, Principles/Micro (3)	
English 102, Literature and Composition (4)	
—OR—	
English 102H, Honors Literature and Composition (4)	
English 103, Critical Thinking and Writing (4)	
—OR—	
English 103H, Honors Critical Thinking and Writing (4)	
Geology 101, Introduction to Geology (3)	
Geology 101L, Introduction to Geology Laboratory (1)	
Mathematics 150, Calculus for Biological, Management and Social Sciences (4)	
Mathematics 180, Analytic Geometry and Calculus I (4)	
—OR—	
Mathematics 180H, Honors Analytic Geometry and Calculus (4)	
Mathematics 185, Analytic Geometry and Calculus II (4)	

Mathematics 219, Statistics and Probability (4)	
—OR—	
Mathematics 219H, Honors Statistics and Probability (4)	
Philosophy 110, Critical Thinking (4)	
—OR—	
Philosophy 110H, Honors Critical Thinking (4)	
Physics 109, Survey of General Physics (4)	
Physics 279, College Physics I (4)	
Physics 289, College Physics II (4)	
Political Science 101, Introduction to American Governments (3)	
—OR—	
Political Science 101H, Honors Introduction to American Governments (3)	
Political Science 220, International Politics (3)	
Social Science 219, Statistics and Probability (4)	
—OR—	
Social Science 219H, Honors Statistics and Probability (4)	
Total	18-19

GEOLOGY

Option 1

Geology Degree Degree (sac.geol.as)

The associate degree curriculum in geology prepares students for transfer to a four-year institution leading to a baccalaureate degree in geoscience majors. Geoscientists find employment with environmental companies that clean up and monitor pollution problems. Geotechnical companies also employ geoscientists to evaluate risk from earthquakes, landslides, and other geological hazards. Oil and mining companies employ geoscientists to find new resources. The federal, state, county, and city governments also employ geoscientists for many of the same functions, as well as geoscience research, and to monitor compliance with environmental regulations. Universities, colleges, and museums offer opportunities for teaching and/or research.

Please see a counselor for specific course requirements for your transfer university.

Major requirements for the associate in science degree:

Course	Units
Geology 101, Introduction to Geology	3
Geology 101L, Introduction to Geology Laboratory	1
Geology/Environmental Studies 140, Environmental Geology	
—OR—	
Geology/Earth Science 150, Introduction to Oceanography	3
—OR—	
Geology/Earth Science 150H, Honors Introduction to Oceanography	
Geology 201, Introduction to Historical Geology	4
Chemistry 219, General Chemistry	5

Electives: Select a minimum of 8 units from the courses below: 8

Biology 211, Cellular and Molecular Biology (5)	
Biology 212, Animal Diversity and Ecology (5)	
Biology 214, Plant Diversity and Evolution (5)	
Chemistry 229, General Chemistry and Qualitative Analysis (5)	
Mathematics 180, Analytic Geometry and Calculus I (4)	
—OR—	
Mathematics 180H, Honors Analytic Geometry and Calculus (4)	
Mathematics 185, Analytic Geometry and Calculus II (4)	
and any course numbered 100 or higher in Earth Science, Geology, or Physics, except Earth Science 110 and 115 or Physics 109.	

Total 24



Option 2 Associate in Science in Geology for Transfer (sac.geol.ast)

The Associate in Science in Geology for Transfer (A.S.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in Geology. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.S.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Geology major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.S.-T in Geology students will have a foundation necessary for continued training at the upper division level for geology majors. It is a starting point for students who are preparing for careers in education, geoscience research, and government, where scientific and technical skills are in great demand.

Courses	Units
Required Core (26 units)	
Geology 101, Introduction to Geology	3
Geology 101L, Introduction to Geology Laboratory	1
Geology 201, Introduction to Historical Geology	4
Chemistry 219, General Chemistry	5
—OR—	
Chemistry 219H, Honors General Chemistry	
Chemistry 229, General Chemistry and Qualitative Analysis	5
Mathematics 180, Analytic Geometry and Calculus I	4
—OR—	
Mathematics 180H, Honors Analytic Geometry and Calculus	
Mathematics 185, Analytic Geometry and Calculus II	4
Total Units	26

HISTORY

Option 1 History Degree (sac.hist.aa)

The associate degree curriculum in history provides a basic program to aid students in thinking critically about one's self, one's cultural heritage, social and economic processes, and national and international affairs. Completion of the degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree and eventually into careers with government agencies, libraries or museums, research programs in business, journalism, international organizations, archival work, and work in law, international relations, and business. Consult a counselor for information about course requirements for specific universities.

Major requirements for the associate in arts degree:

Course	Units
History 101, World Civilizations to the 16th Century	3
—OR—	
History 101H, Honors World Civilizations to the 16th Century	
History 102, World Civilizations Since the 16th Century	3
—OR—	
History 102H, Honors World Civilizations Since the 16th Century	
History 120, United States to 1865	3
—OR—	
History 120H, Honors United States to 1865	
History 121, United States Since 1865	3
—OR—	
History 121H, Honors United States Since 1865	

Required Electives: Choose 3 electives from the following group.

Must include at least one History class.	9
Economics 120; Geography 100 or 100H; History 123, 124 or 124H, 127, 128H, 133, 146, 150, 151, 163; Philosophy 112, 118; Political Science 101 or 101H, 200, 201, 220.	
Total	21

Option 2 Associate in Arts in History for Transfer (sac.hist.aat)

The Associate in Arts in History for Transfer (A.A.-T in History) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in History. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T in History also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the History major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in History students will have an understanding of both the breadth and depth of the history discipline. This knowledge will be grounded in the comprehension of history principles, concepts, ideas, theories, research, and terminology. Students will also have the capacity to write and think in a critical and analytical way about issues pertaining to history, economics, politics, culture, and understanding the relationship between the social sciences and humanities.

Required Core (6 units)	Units
History 120, The United States to 1865	3
—OR—	
History 120H, Honors The United States to 1865	
History 121, The United States since 1865	3
—OR—	
History 121H, Honors The United States since 1865	
List A – select 2 courses: 6 units	
History 101, World Civilizations to the 16th Century	3
—OR—	
History 101H, Honors World Civilizations to the 16th Century	
History 102, World Civilizations Since the 16th Century	3
—OR—	
History 102H, Honors World Civilizations Since the 16th Century	

List B – select 1 course from each area: 6 units

Area 1: 3-5 units

History 150, Latin American Civilization to Independence (3)	
History 151, Modern Latin American Civilization (3)	
History 153, History of Mexico (3)	
History 163, Introduction to Southeast Asian History (3)	
History 124, Mexican American History in the United States (3)	
—OR—	
History 124H, Honors Mexican American History in the United States (3)	3-5
History 125, Native Americans in the U.S. (3)	
History 127, Women in U.S. History (3)	
History 146, African American History from 1863 to the Present (3)	
History 181, Survey of Chicana/Latina Women's History (3)	
Spanish 102, Elementary Spanish II (5)	

Area 2: 3 units

History 118, Social and Cultural History of the United States (3)	
History 133, History of California (3)	
Geography 100, World Regional Geography (3)	3
—OR—	
Geography 100H Honors World Regional Geography (3)	
Total	18-20

HOME ECONOMICS

(See *Fashion Design Merchandising, or Nutrition and Food*)

HOSPITAL PHARMACY TECHNOLOGY

(See *Pharmacy Technology*)



HUMAN DEVELOPMENT

Option 1 Early Childhood Options Degree and Certificate

The early childhood program emphasizes an infant, toddler, or preschool child option; offers students knowledge about the development of the young child, prebirth through early school years, and opportunities to learn ways to meet the emotional, physical, social, and education needs of the child. The program prepares students for directly working with children as teachers in child care or other preschool environments and seeks to support and enrich them in their role as parents.

Students may move into a curriculum in a four-year institution leading to a baccalaureate degree in child development and more advanced careers such as preschool director, elementary school teacher, or other human services fields relating to children.

Eighteen of the 33.5 units in the required courses listed below are transferrable into the Early Childhood Development Option Degree in the Child and Adolescent Development major at CSU Fullerton. Additional transferable units beyond 18 units will be accepted as elective units toward the bachelor's degree. Students majoring in Human Development and are electing a different major at CSU Fullerton or planning to attend a different university should see a SAC or SCC counselor for early advisement.

- Human Development 107
 - Human Development 108 A
 - Human Development 110
 - Human Development 111A or Human Development 116A
 - Human Development 111B or Human Development 116B
 - Human Development 112
 - Human Development 200
 - Human Development 205
 - Human Development 221
 - Human Development 231
 - Human Development 298A or Human Development 298B
- Major requirements for the associate degree and certificate:

Infant-Toddler Option Degree (sac.hudit.aa) and Certificate (Transcripted) (sac.hudit.ca)

Course	Units
Human Development 107, Child Growth and Development (DS1)	3
Human Development 108A, Observation and Assessment for Early Learning and Development	3
Human Development 110, Child, Family and Community (DS2)	3
Human Development 112, Health, Safety and Nutrition for Children	3
Human Development 116A, Infant/Toddler Growth and Development (DS4)	3
Human Development 116B, Programming for Infants and Toddlers (DS4)	3
Human Development 200, Computer Literacy for Early Childhood Educators	3
Human Development 205, Exceptionality and Special Needs in Human Development	3
Human Development 221, Teaching in a Diverse Society	3
Human Development 298B, Practicum in Infant/Toddler Programs	3.5
Total	30.5

Preschool Child Option Degree (sac.hudpc.aa) and Certificate (Transcripted) (sac.hudpc.ca)

Course	Units
Human Development 107, Child Growth and Development (DS1)	3
Human Development 108A, Observation and Assessment for Early Learning and Development	3
Human Development 110, Child, Family and Community (DS2)	3
Human Development 111A, Principles and Practices of Teaching Young Children (DS3)	3
Human Development 111B, Introduction to Curriculum for Young Children (DS3)	3
Human Development 112, Health, Safety and Nutrition for Children	3
Human Development 200, Computer Literacy for Early Childhood Educators	3
Human Development 205, Exceptionality and Special Needs in Human Development	3
Human Development 221, Teaching in a Diverse Society	3
Human Development 231, Developing Language and Literacy in Young Children	3
Human Development 298A, Practicum in Early Childhood Programs	3.5
Total	33.5

Option 2 Associate in Science in Early Childhood Education for Transfer (sac.ece.ast)

The Associate in Science in Early Childhood Education for Transfer (A.S.-T in Early Childhood Education) prepares students to move into the CSU system leading to a baccalaureate degree in Child Development, Human Development, Early Childhood Education or Child and Adolescent Studies. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.S.-T in Early Childhood Education degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Child and Adolescent Development major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.S.-T in Early Childhood Education, students will have general understanding of the main developmental theories as they pertain to the development, care, and education of young children. Additionally, students will have the capacity to evaluate and plan curriculum and environments for children based on observation of their physical, cognitive, emotional, social and creative characteristics.

Courses	Units
Required Core (24.5 units)	
Human Development 107, Child Growth and Development (DS1)	3
Human Development 108A, Observation and Assessment for Early Learning and Development	3
Human Development 110, Child, Family and Community (DS2)	3
Human Development 111A, Principles and Practices of Teaching Young Children	3
Human Development 111B, Introduction to Curriculum for Young Children	3
Human Development 112, Health, Safety and Nutrition for Children	3
Human Development 221, Teaching In A Diverse Society	3
Human Development 298A, Practicum in Early Childhood Programs	3.5
Total Units	24.5



Bilingual (English/Spanish) Preschool Associate Teacher Certificate (Transcripted) (sac.hudbp.ca)

The Bilingual (English/Spanish) Preschool Associate Teacher Certificate is designed to prepare the native Spanish (English as a second language) speaker to be an assistant/associate teacher in a licensed preschool serving Spanish speaking families and children. The classes in this certificate are presented in English and Spanish, with the requirement of concurrent enrollment in ESL or EMLS classes, encouraging mastery of both languages. Completion of the certificate with a grade of C or better will enable the student to be eligible for the California Associate Teacher Permit required to be employed in publically funded programs as well as meet licensing requirements to be employed in private and faith-based programs.

Course	Units
Human Development 070, Early Childhood Education: Introductory Principles and Practices (DS3)	3
Human Development 107, Child Growth and Development (DS1)	3
Human Development 108A, Observation and Assessment for Early Learning and Development	3
Human Development 110, Child, Family and Community (DS2)	3
Human Development 111A, Principles and Practices of Teaching Young Children	3
Human Development 111B, Introduction to Curriculum for Young Children	3
Total	18

The classes in this certificate are presented in English and Spanish, with the requirement of concurrent enrollment in ESL or EMLS classes, encouraging mastery of both languages.

School Age Options Degree (sac.hudsa.aa)

In addition to the general education requirements, the school age option degree is designed to prepare instructional and classroom aides to serve as paraprofessional members of the teaching team and/or teachers in school-age child care. Students are offered knowledge about the development of the school age child and the role of the adult in helping to integrate skills and aid classroom learning. Students may develop skills, enrich skills to work more effectively in current roles, or may move into a curriculum in a four-year institution leading to a baccalaureate in child development, liberal studies, education, chicano studies, or other majors that precede the work toward a California teaching credential.

CSU Fullerton will accept a maximum of 9 transferable units of lower division coursework into their Elementary and Special Education track in the Child and Adolescent Development major. Recommended courses are listed below. Additional transferable units beyond 9 will be accepted as elective units toward the bachelors degree.

Students majoring in Human Development and planning to become elementary school teachers should see a SAC or SCC counselor for early advisement.

Human Development 107
Human Development 110
Human Development 205

Major requirements for the associate degree:

Course	Units
Education 100, Introduction to Education	3
Education 113, Tutoring Reading in Elementary Schools	1
Human Development 107, Child Growth and Development (DS1)	3
Human Development 110, Child, Family and Community (DS2)	3
Human Development 114, Careers in Teaching	1
Human Development 120, Development of the School Age Child (DS5)	3
Human Development 121, School Age Child Care Activities (DS5)	3
Human Development 200, Computer Literacy for Early Childhood Educators	3
Human Development 205, Exceptionality and Special Needs in Human Development	3
Human Development 220, The Child as Victim	3
Human Development 221, Teaching in a Diverse Society	3
Human Development 299, Cooperative Work Experience Education	1-4
Total	30-33

Note: This degree option is especially intended for students who will be transferring to CSU and seeking a teaching credential. Students should consult with a counselor for specific information regarding the college of their choice and course requirements .

School Age Option Certificate (Transcripted) (sac.hudsa.ca)

The school age option certificate is designed to prepare instructional and classroom aides to serve as paraprofessional members of the teaching team and/or teachers in school-age child care. Students are offered knowledge about the development of the school age child and the role of the adult in helping to integrate skills and aid classroom learning. Students may develop skills, enrich skills to work more effectively in current roles, or may move into a curriculum in a four-year institution leading to a baccalaureate in child development, liberal studies, education, Chicano studies, or other majors that precede the work toward a California teaching credential.

Course	Units
Education 100, Introduction to Education	3
Education 113, Tutoring Reading in Elementary Schools	1
Human Development 107, Child Growth and Development (DS1)	3
Human Development 110, Child, Family and Community (DS2)	3
Human Development 114, Careers in Teaching	1
Human Development 120, Development of the School Age Child (DS5)	3
Human Development 121, School Age Child Care Activities (DS5)	3
Human Development 200, Computer Literacy for Early Childhood Educators	3
Human Development 205, Exceptionality and Special Needs in Human Development	3
Human Development 220, The Child as Victim	3
Human Development 221, Teaching in a Diverse Society	3
Human Development 299, Cooperative Work Experience Education	1-4
Total	30-33

Industrial Technology

(See *Engineering*)

Instructional Aide

(See *Human Development-School Age Options*)

Instructional Aide-Early Childhood

(See *Human Development-Early Childhood: Infant-Toddler, and Preschool Child*)



INTERNATIONAL BUSINESS

International Business Degree (sac.ib.aa)

The Associate Degree in International Business is designed to provide students and business practitioners, including those already involved in International Business, with practical “hands’ on” exposure to the world of international business. Classes focus on businesses that import and export. Students learn the fundamentals of international business, culture, marketing, finance, law and logistics. Different countries and cultures are explored. Specialized topic areas (for example, marketing, financing, law and logistics) are a sequence of short classes that should be taken in order. The program prepares students to take the NASBITE Certified Global Business (CGBP) Credential Exam.

Required Core Courses:	Units
Business 100, Fundamentals of Business —OR—	3
Entrepreneurship 100, Introduction to Innovation and Entrepreneurship	
Business 106, Culture and International Business - Kiss, Bow or Shake Hands	3
Business 125, Introduction to International Business	3
Business 222, Business Writing —OR—	3
Management 122, Business Communications	

Sequence Courses:
(All courses in all sequences must be completed to earn this degree.)

Marketing Sequence:	Units
Business 141, The Globalization of Marketing	1
Business 142, International Market Research and Planning	1
Business 143, Packaging, Pricing and Promoting Products/ Services for Export	1
Business 145, Channels of Distribution in International Markets	1

Finance Sequence:	Units
Business 163, International Methods of Payment and Letters of Credit	1
Business 164, Alternative Financing Techniques for International Trade	1
Business 165, International Trade Finance and Insurance	1
Business 166, Financing an Import/Export Business	1

Law Sequence:	Units
Business 147, International Commercial Agreements and Distribution Law	1
Business 148, International Intellectual Property Law	1
Business 149, The Law of Global Commerce	1

Logistics Sequence:	Units
Business 110, Export Pricing, Quotations and Terms of Trade	1
Business 111, International Business Documentation—Beginning	1
Business 113, International Transportation	1
Business 114, International Documentation and Supply Chain Management	1

Import Sequence:	Units
Business 180, Finding and Evaluating Products for Import	1
Business 182, Classifying Imports and Clearing U.S. Customs	1

Select ONE course from the following:	3-4
Accounting 101, Financial Accounting (4)	
Business 120, Principles of Management (3)	
Management 120, Principles of Management (3)	
Marketing 113, Principles of Marketing (3)	
Total	32-33

International Business Certificate (Transcripted) (sac.ib.ca)

Required Core Courses:	Units
Business 106, Culture and International Business - Kiss, Bow or Shake Hands	3
Business 125, Introduction to International Business	3

Sequence Requirements
(All sequence courses must be completed to earn this certificate.)

Marketing Sequence:	Units
Business 141, The Globalization of Marketing	1
Business 142, International Market Research and Planning	1
Business 143, Packaging, Pricing and Promoting Products/ Services for Export	1
Business 145, Channels of Distribution in International Markets	1

Financial Sequence:	Units
Business 163, International Methods of Payment and Letters of Credit	1
Business 164, Alternative Financing Techniques for International Trade	1
Business 165, International Trade Finance and Insurance	1
Business 166, Financing an Import/Export Business	1

Law Sequence:	Units
Business 147, International Commercial Agreements and Distribution Law	1
Business 148, International Intellectual Property Law	1
Business 149, The Law of Global Commerce	1

Logistics Sequence:	Units
Business 110, Export Pricing, Quotations and Terms of Trade	1
Business 111, International Business Documentation—Beginning	1
Business 113, International Transportation	1
Business 114, International Documentation and Supply Chain Management	1
Total	21

Global Trade Skills Certificate (Untranscripted) (sac.gltra.cert)

The Global Trade Skills Certificate teaches students the transaction level basics of global trade: international logistics, international marketing, international finance, international law and importing. This stackable certificate is the first step in achieving the International Business Certificate and preparing for the NASBITE Certified Global Business Professional (CGBP) credential exam.

Complete all courses listed below:

Course	Units
International Logistics Sequence:	
Business 110, Export Pricing, Quotations and Terms of Trade	1
Business 111, International Business Documentation - Beginning	1
Business 113, International Transportation	1
Business 114, International Documentation and Supply Chain Management	1
International Marketing Sequence:	
Business 141, The Globalization of Marketing	1
Business 142, International Market Research and Planning	1
Business 143, Packaging, Pricing and Promoting Products/Services for Export	1
Business 145, Channels of Distribution in International Markets	1

**International Law Sequence:**

Business 147, International Commercial Agreements and Distribution Law	1
Business 148, International Intellectual Property Law	1
Business 149, The Law of Global Commerce	1

International Finance Sequence:

Business 163, International Methods of Payment and Letters of Credit	1
Business 164, Alternative Financing Techniques for International Trade	1
Business 165, International Trade Finance and Insurance	1
Business 166, Financing an Import/Export Business	1

Importing Sequence:

Business 180, Finding and Evaluating Products for Import	1
Business 182, Classifying Imports and Clearing US Customs	1
Total	17

INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) CERTIFICATE OF ACHIEVEMENT (sac.uc.ca)

(Complete all Intersegmental General Education Transfer Curriculum Requirements (Plan C) as outlined on page 39.) (Minimum 34 units)

Journalism

(See *Communications & Media Studies*)

KINESIOLOGY

Option 1**Kinesiology Degree (sac.kin.aa)**

The program at Santa Ana College is designed to acquaint the student with all aspects of health and wellness. In addition to exercise, the student is introduced to classes that support an active mind and body. Curriculum content may include nutrition, health awareness, sports medicine, kinesiology, and physiology as they relate to exercise.

The following classes can lead to obtaining a degree in the areas of exercise science, sports medicine-athletic trainer, physical therapy, kinesiology, coaching, or sport/fitness related vocations.

TRANSFER PLAN

Courses required to complete an associate degree at Santa Ana College in Kinesiology may not fulfill courses required by four-year universities to complete a baccalaureate degree. The Kinesiology Department at Santa Ana College recommends that students interested in transferring to a four-year institution consult with a counselor prior to beginning their courses of study.

Required Core Courses	20.5 Units
Performance Courses	5 Units
Elective Courses	6 Units
Total	31.5 Units

Required Core Courses	Units
Kinesiology Health Education 101, Healthful Living	3
Kinesiology Health Education 104, Nutrition and Fitness	2
Kinesiology Health Education 105, First Aid and Personal Safety 1.5	
Kinesiology Health Education 107, Cardiopulmonary Resuscitation	2
Kinesiology Sports Medicine 101, Introduction to Sports Medicine	3
Kinesiology Sports Medicine 150, Athletic Training Internship	2
Kinesiology Professional 101, Introduction to Kinesiology	3
Biology 239, General Human Anatomy (4)	
—OR—	
Biology 249, Human Physiology (4)	3-4

Performance Courses (5 Units) 5

Must include at least 1 (one) unit from each of the following areas, for a total of 5 (five) units: Activities, Adapted Activities, Aerobic Fitness, Aquatics, and Fitness. For a complete description of Kinesiology performance courses refer to Santa Ana College Catalog.

Elective Courses (6 Unit Minimum) 6

Kinesiology Professional 125, Sport Psychology (3)
Kinesiology Professional 140, Movement Education for Elementary School Children (3)
Kinesiology Professional 150, Sport and Society (3)
Kinesiology Professional 160, Management of Physical Education and Sport (3)

Option 2**Associate in Arts in Kinesiology for Transfer (sac.kin.aat)**

The proposed Associate in Arts in Kinesiology for Transfer (A.A.-T in Kinesiology) is designed to prepare students for transfer into the CSU system to complete a baccalaureate degree in Kinesiology or similar major. Please consult a counselor regarding specific course requirements for your transfer institution. This degree provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Kinesiology major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Kinesiology degree students will be able to articulate understanding of scientific foundations of Kinesiology, distinguish between Kinesiology-related careers, and demonstrate movement skills competence. Students will gain knowledge and movement-based experience which prepares them in pursuit of a bachelor's or master's degree and/or professional certification in exercise science, nutrition, health promotion, sports medicine/athletic training, physical therapy, and coaching or fitness related fields.

Courses	Units
Required Core (14 units)	
Kinesiology Professional 101, Introduction to Kinesiology	3
Biology 239, General Human Anatomy	4
Biology 249, Human Physiology	4

Movement Based Courses: Select a maximum of one (1) course from any three (3) of the following areas for a total of three units.

Area 1 Aquatics

- Kinesiology Aquatics 201, Swimming (1)
- Kinesiology Aquatics 206, Lap Swimming (1)

Area 2 Combatives

- Kinesiology Activities 140, Karate (1)
- Kinesiology Activities 155, Self-Defense (1)

Area 3 Dance

- Dance 110, Beginning Mexican Folk Dance (1)
- Dance 111, Intermediate Mexican Folk Dance (1)

Area 4 Fitness

- Kinesiology Activities 170, Yoga (1)
- Kinesiology Fitness 147A, Beginning Weight Training (1)
- Kinesiology Aerobic Fitness 140, Walking/Jogging for Fitness (1)
- Kinesiology Aerobic Fitness 156, Beginning Cardio Kickboxing (1)
- Kinesiology Aerobic Fitness 157, Cardio Pump (1)

Area 5 Individual Sports

- Kinesiology Activities 107, Beginning Badminton (1)
- Kinesiology Activities 160, Tennis (1)

Area 6 Team Sports

- Kinesiology Activities 220, Beginning Basketball (1)
- Kinesiology Activities 260, Soccer-Beginning/Intermediate (1)
- Kinesiology Activities 290, Volleyball (1)
- Kinesiology Activities 292, Advanced Volleyball-Women (1)



List A: Select two courses (7.5-9 units)

1. Mathematics 219, Statistics and Probability (4)	
—OR—	
Mathematics 219H, Honors Statistics and Probability (4)	
—OR—	
Social Science 219, Statistics and Probability (4)	
—OR—	
Social Science 219H, Honors Statistics and Probability (4)	
2. Chemistry 210, General, Organic and Biochemistry (5)	
—OR—	
Chemistry 219, General Chemistry (5)	7.5-9
—OR—	
Chemistry 219H, Honors General Chemistry (5)	
3. Physics 279, College Physics I (4)	
—OR—	
Physics 210, Principles of Physics I (4)	
—OR—	
Physics 217, Engineering Physics I (4)	
4. Kinesiology Health Education 105, First Aid and Personal Safety (1.5)	
—AND—	
Kinesiology Health Education 107 Cardiopulmonary Resuscitation (2)	
Total Units	21.5 - 23

Changes to this degree are pending approval from the Community College Chancellor's Office. Please consult a counselor for additional information.

Kinesiology Sports Medicine Certificate (Untranscripted) (sac.knm.cert)

A series of classes that will help give students a more complete understanding in all aspects in the field of sports medicine.

Course	Units
Kinesiology Health Education 101, Healthful Living	3
Kinesiology Health Education 104, Nutrition and Fitness	2
Kinesiology Health Education 105, First Aid and Personal Safety	1.5
Kinesiology Health Education 107, Cardiopulmonary Resuscitation	2
Kinesiology Sports Medicine 101*, Introduction to Sports Medicine	3
—AND—	
Kinesiology Sports Medicine 150*, Athletic Training Internship	2
Kinesiology Professional 125, Sports Psychology	3
Total	16.5

*Kinesiology Sports Medicine 101 and 150 must be taken together.

LAW

Prelaw students at Rancho Santiago Community College District colleges should complete the requirements for the political science, liberal arts, and business administration transfer; and meet the lower division requirements of the institution to which they plan to transfer.

No specific college major is required for admission to a school of law. A usual requirement for admission is that the student must have been granted a bachelor's degree from an accredited college or university. Some law schools, however, have alternate plans. The student should consult the catalog of the school of law to which he/she expects to apply for admission.

The prelegal students should follow a plan of study which will assure an adequately broad cultural foundation. It is recommended that they prepare to read understandingly, accurately, and rapidly and to express thoughts orally and in writing clearly, completely, and concisely. Students should acquire competence in the fields of English, speech, American history, economics, elementary accounting, political science, psychology, philosophy, sociology and at least one foreign language. They should know something of mathematics and the natural sciences.

LIBERAL ARTS DEGREE

This is a diversified degree designed for students desiring a broad knowledge of liberal arts and sciences plus additional coursework in an "Area of Emphasis". The degree allows students to develop an appreciation and understanding of the beauty and values that have shaped and enriched our culture. The program of study also enables students to develop intellectual maturity, and a deeper understanding of themselves and the American heritage.

This program provides excellent preparation for a variety of personal and professional goals. Please consult a counselor for educational planning and information regarding specific goals.

I. Requirements:

1. Complete general education Plan A (associate degree only, non-transfer), B (CSU-GE Breadth, CSU transfer), or C (IGETC, UC or CSU transfer) as related to your educational goal.
2. Complete a minimum of 18 units from a single Area of Emphasis listed below. *For depth of study, students are strongly encouraged to complete two or more courses in a single discipline as part of their 18 units.* (Note: Courses in the chosen "Area of Emphasis" may also be applied toward general education areas on Plans A, B, and C.) Note: Although a course may be listed in more than one area of emphasis of the Liberal Arts degree, it may only be used to meet a requirement for a single emphasis.
3. Complete all other associate degree requirements for Santa Ana College as outlined on page 36.

II. Areas of Emphasis:

1. American Studies (sac.laas.aa)

These courses emphasize the peoples, cultures, institutions, and cultural trends of the United States. Students will examine American culture as a whole from various perspectives. Students will also learn how this country has been shaped by a variety of disciplines while recognizing the diversity of our culture. This emphasis may be of interest to those planning to pursue careers in business, communications, government service, law, social services, and teaching.

Anthropology 100 or 100H, 104 or 104H, 125; **Art** 103, 104, 108; **Asian American Studies** 101; **Biology** 200; **Black Studies** 101; **Chicano Studies** 101; **Communication Studies** 103 or 103H, 206 or 206H; **Communications & Media Studies** 111, 121; **Computer Science** 100; **Counseling** 100, 116, 128; **Criminal Justice** 101, 107; **Dance** 100 or 100H; **Education** 100; **English** 104 or 104H, 241, 242, 245, 246; **Environmental Studies** 200; **Ethnic Studies** 101 or 101H, 102 or 102H; **History** 118, 120 or 120H, 121 or 121H, 122, 123, 124 or 124H, 125, 127, 128H, 133, 146; **Human Development** 110, 221; **Kinesiology Health Education** 101, 102, 120; **Kinesiology Professional** 170; **Music** 103, 104; **Nutrition and Food** 118; **Paralegal** 107; **Political Science** 101 or 101H, 200 or 200H, 235; **Psychology** 170; **Sign Language** 110, 111, 112, 116; **Science** 200; **Sociology** 112, 140 or 140H; **Television/Video Communications** 101, 103, 104, 105 or 105H; **Theatre Arts** 100; **Women's Studies** 101, 102

Note: Although a course may be listed in more than one area of emphasis of the Liberal Arts degree, it may only be used to meet a requirement for a single emphasis.



2. Arts, Humanities and Communications (sac.laahc.aa)

These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will 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 will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments. A course from each of the three areas, Arts, Humanities, and Communications must be included in the 18 units selected for this emphasis. This emphasis may be of interest to those planning to pursue careers in art history, communications, dance, deaf studies, english, languages, music, philosophy, studio art, teaching, and theatre arts.

Arts

Art 100 or 100H, 101, 102, 103, 104, 105, 106, 108, 110; **Communications & Media Studies** 103; **Dance** 100 or 100H, 102, 105; **English** 233A, 233B, 233C, 233D; **Interdisciplinary Studies** 121; **Music** 101 or 101H, 102 or 102H, 103, 104, 110, 111, 211; **Photography** 150; **Television/Video Communications** 101, 103, 104, 105 or 105H; **Theatre Arts** 100, 105

Humanities

Anthropology 104 or 104H; **Chinese** 101, 102; **Communications & Media Studies** 103, 110, 111; **English** 102 or 102H, 104 or 104H, 206, 220, 231, 232, 233A, 233B, 233C, 241, 242, 243, 245, 246, 270, 271, 272, 278; **French** 101, 102, 201 or 201H, 202 or 202H; **History** 101 or 101H, 102 or 102H, 150, 151, 153, 163; **Interdisciplinary Studies** 121, 200; **Italian** 120, 121; **Japanese** 101, 102; **Kinesiology, Professional** 170; **Philosophy** 106 or 106H, 108, 112, 118; **Sign Language** 110, 111, 112, 116; **Spanish** 101 or 101H, 102 or 102H, 195A, 195B, 201 or 201H, 202 or 202H; **Vietnamese** 101, 102

Communications

Communication Studies 101 or 101H, 102, 103 or 103H, 140, 145, 152; **Counseling** 144; **English** 101 or 101H, 102 or 102H, 103 or 103H, **English for Multilingual Students** 112; **Philosophy** 110 or 110H, 111, 144; **Reading** 102, 150; **Social Science** 219 or 219H

Note: Although a course may be listed in more than one area of emphasis of the Liberal Arts degree, it may only be used to meet a requirement for a single emphasis.

3. Business and Technology (sac.labt.aa)

These courses emphasize the integration of theory and practice within the fields of business and technology. Students will develop the ability to effectively manage and lead organizations. Students will demonstrate an understanding of the place of business and technology within the global economy. Students will critically apply ethical standards to business practices and decisions. Courses from both Business and Technology must be included in the 18 units selected for this emphasis. This emphasis may be of interest to those planning to pursue careers in accounting, business administration, computer information systems, computer science, engineering, finance, international business, and law.

Business

Accounting 101, 102; **Business** 100, 101, 106, 120, 121, 125, 140, 150, 222; **Economics** 120, 121; **Management** 122, 135; **Marketing** 113; **Mathematics** 140, 145, 150, 180, 219 or 219H; **Paralegal** 131, 133, 136, 138, 140; **Social Science** 219 or 219H

Technology

Business Applications 150, 179; **Computer Science** 100, 105, 121, 136, 163, 167; **Engineering** 100A, 100B, 112

Note: Although a course may be listed in more than one area of emphasis of the Liberal Arts degree, it may only be used to meet a requirement for a single emphasis.

4. Kinesiology and Wellness (sac.lakw.aa)

These courses provide an understanding of kinesiology, the mechanics of the human body, and the integration of behavior and communication in the promotion of a healthy lifestyle. Students will also demonstrate knowledge of a range of physical activities. This emphasis may be of interest to those planning to pursue careers in teaching, athletic training, coaching, nutrition, and dance.

a. Kinesiology and Movement (minimum 3 units)

Dance 100, 100H, 102, 103, 105; **Kinesiology, Health Education** 101, 102, 104, 105, 107; **Kinesiology, Professional** 101, 125, 140, 150, 155, 160, 165, 170, 175, 200; **Kinesiology, Sports Medicine** 101, 150

b. Scientific and Nutrition Foundation (minimum 3 units)

Anthropology 101, 101L; **Biology** 109, 109H, 109L, 115, 139, 149, 177, 200, 211, 212, 214, 217, 229, 239, 249, 259; **Chemistry** 109, 115, 119, 209, 210, 219, 219H, 229; **Environmental Studies** 200; **Interdisciplinary Studies** 155; **Nutrition and Food** 065, 115, 116, 118; **Physics** 109, 210, 211, 217, 227, 237, 279, 289; **Science** 200

c. Behavioral Development, Communication, and Diversity (minimum 3 units)

Asian American Studies 101; **Black Studies** 101; **Chicano Studies** 101; **Communication Studies** 101, 101H, 102, 103, 103H, 140, 145, 206, 206H; **Counseling** 100, 107, 120, 124, 116, 150, 155; **Ethnic Studies** 101; **Human Development** 107; **Psychology** 100, 100H, 140, 157, 170, 200, 230, 240, 250; **Sociology** 100, 100H, 112, 140, 140H, 240; **Women's Studies** 101, 102

d. Physical Activity (6 units selected from at least three different areas)

Dance 009, 022, 102, 103, 106A, 106B, 107, 108A, 108B, 109A, 109B, 109C, 110, 111, 112, 113A, 113B, 117, 118, 119A, 119B, 122, 123, 124, 130, 132, 140, 201A, 201B, 202A, 202B, 204A, 204B, 205, 206A, 206B, 209, 210, 213, 214, 218, 219A, 219B, 220, 221, 230, 232, 240A, 240B, 250A, 250B, 251, 260, 261, 262, 263, 270, 296, 297, 298; **Kinesiology, Activities** 107A, 123, 140A, 150A, 155A, 160A, 169A, 170A, 200A, 200B, 200C, 211A, 211B, 220A, 220B, 220C, 226A, 260A, 260B, 265A, 265B, 270A, 290A, 290B; **Kinesiology Adapted Activities** 201A, 202A, 202B, 205A, 208A, 208B, 211A, 211B; **Kinesiology, Aerobic Fitness** 140, 143A, 144A, 146A, 146B, 150A, 156, 156A, 156B, 157A; **Kinesiology, Aquatics** 201A, 201B, 204; **Kinesiology, Fitness** 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, 110C, 112A, 112B, 112C, 115A, 115B, 115C, 126A, 126B, 126C, 127A, 127B, 127C, 147A, 147B; **Kinesiology, Intercollegiate Athletics** 103, 125, 128, 133, 134, 171, 201, 202, 204, 206, 207, 209, 210, 211, 212, 213, 214, 216, 217, 218, 219, 220, 221, 223, 227, 231, 232, 235, 240, 261, 262, 270, 271, 281, 291;

e. Additional units to be selected from a, b, or c above for a total of 18 units

Note: Although a course may be listed in more than one area of emphasis of the Liberal Arts degree, it may only be used to meet a requirement for a single emphasis.



5. Mathematics and Science (sac.lams.aa)

These courses emphasize the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in math emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations. Courses from both mathematics and science must be included in the 18 units selected for this emphasis. This emphasis may be of interest to those planning to pursue careers in actuarial science, business, computer science, engineering, forensics, health professions, research, science, teaching, and technical writing.

Anthropology 101, 101L; **Astronomy** 109, 110 or 110H, 140; **Biology** 109 or 109H, 109L, 111, 115, 139, 149, 177, 200, 211, 212, 214, 229, 239, 259; **Chemistry** 109, 115, 119, 209, 210, 219 or 219H, 229, 249, 259; **Earth Science** 110 or 110H, 115, 150 or 150H; **Environmental Studies** 140, 200, 259; **Geography** 101, 101L; **Geology** 101, 101L, 140, 150 or 150H, 201; **Mathematics** 060, 070, 080, 081, 083, 084, 087, 105, 145, 150, 160, 170, 180 or 180H, 185, 219 or 219H, 280, 287; **Physical Science** 115, 117, 118; **Physics** 109, 210, 211, 217, 227, 237, 279, 289; **Psychology** 210; **Science** 200; **Social Science** 219 or 219H

Note: Although a course may be listed in more than one area of emphasis of the Liberal Arts degree, it may only be used to meet a requirement for a single emphasis.

6. Social and Behavioral Sciences (sac.lasbs.aa)

These courses emphasize the perspective, concepts, theories and methodologies of the disciplines typically found in the vast variety of disciplines that comprise study in the Social and Behavioral Sciences. Students will study about themselves and others as members of a larger society. Topics and discussion to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate. This emphasis may be of interest to those planning to pursue careers in anthropology, child development, criminal justice, ethnic studies, government service, law, history, marriage and family therapy, political science, psychology, social work, sociology, teaching, and urban planning.

Anthropology 100 or 100H, 103, 104 or 104H, 105, 125; **Asian American Studies** 101; **Biology** 200; **Black Studies** 101; **Chicano Studies** 101; **Communication Studies** 103 or 103H, 206 or 206H; **Communications & Media Studies** 111; **Computer Science** 100; **Counseling** 150; **Criminal Justice** 101; **Economics** 120, 121; **English** 104 or 104H, 245, 278; **Environmental Studies** 200; **Ethnic Studies** 101 or 101H, 102 or 102H; **Geography** 100 or 100H, 102; **History** 101 or 101H, 102 or 102H, 105, 118, 120 or 120H, 121 or 121H, 122, 123, 124 or 124H, 125, 127, 133, 146, 150, 151, 153, 160, 161, 163, 181; **Human Development** 107, 110; **Interdisciplinary Studies** 117H, 155; **Kinesiology, Professional** 150; **Political Science** 101 or 101H, 200 or 200H, 201, 220, 235; **Psychology** 100 or 100H, 140, 157, 170, 200, 219, 230, 240, 250; **Science** 200; **Sociology** 100 or 100H, 112, 140 or 140H, 240; **Television/Video Communications** 105 or 105H; **Women's Studies** 101, 102

Note: Although a course may be listed in more than one area of emphasis of the Liberal Arts degree, it may only be used to meet a requirement for a single emphasis.

LIBRARY TECHNOLOGY

Library Technology Degree (sac.lib.aa)

The associate degree curriculum in library technology is designed to successfully prepare students for employment above the beginning clerk level as paraprofessionals in school, public, special, or academic libraries. Course content covers terminology, organization, procedures, standards, practices, and fieldwork. Entry-level positions are available in this field as library technical assistants, library assistants, library technicians, and library media technicians.

Prior to completion of the Library Technology Degree, students must acquire keyboarding skills (recommended keyboarding speed is at least 40 words per minute). This may be accomplished by successfully completing Business Applications 115 A or B, Computer Keyboarding Speed and Accuracy Development, OR, by credit by exam (contact the Business Applications Department if interested in the exam).

Students must meet with the Library Technology Chair and Counselor for academic advisement before beginning the program. To receive a Certificate in Library Technology a grade of "C", or better is required for each major course. Library Technology 053 is the only Pass/No Pass course of the program. LT 053 requires a "Pass" grade.

Major requirements for the associate in arts degree:

Course	Units
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I	1
—OR—	
Business Applications 115B, Computer Keyboarding Speed and Accuracy Development II	
Business Applications 179, Introduction to Microsoft Office (4)	3-4
—OR—	
Business Applications 183, Microsoft Word (3)	
Library Technology 101, Introduction to Library Technology*	3
Library Technology 110, Technical Services*	3
Library Technology 054, Children's Library Services*	3
Library Technology 122, Public Services*	3
Library Technology 102, Information Sources for Paraprofessionals: Tools and Techniques*	3
Library Technology 053, Library Internship	3

Electives must be selected from the following courses:

Accounting 010, Accounting Procedures (3)	6
Business Applications 160, Microsoft Publisher (3)	
Business Applications 164, Introduction to Adobe Photoshop (3)	
Business Applications 166, Adobe Illustrator (3)	
Business Applications 169, Adobe Dreamweaver 1.5	
Communication Studies 101, Introduction to Interpersonal Communication (3)	
—OR—	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	
Communication Studies 103, Introduction to Intercultural Communication (3)	
—OR—	
Communication Studies 103H, Honors Introduction to Intercultural Communication (3)	
Communication Studies 104, Listening 1.5	
Computer Science 173, Introduction to Networking Technology (3)	
Education 100, Introduction to Education (3)	
English 270, Children's Literature (3)	
Human Development 107, Child Growth and Development (DS1) (3)	
Human Development 120, Development of the School Age Child (DS5) (3)	
Human Development 221, Teaching In A Diverse Society (3)	



Human Development 231, Developing Language and Literacy in Young Children (3)	
Library and Information Studies 100, Library Research Fundamentals (1)	
Management 121, Human Relations and Organizational Behavior (3)	
Management 120, Principles of Management (3)	
Management 122, Business Communications (3)	
Management 125, Organizational Leadership (3)	
Psychology 100, Introduction to Psychology (3)	
—OR—	
Psychology 100H, Honors Introduction to Psychology (3)	
Psychology 140, Introduction to Psychology of Adulthood and Aging (3)	
Psychology 157, Introduction to Child Psychology (3)	
Psychology 170, Multicultural Psychology (3)	
Total	28-29

*Courses not taught every semester.

Library Technology Certificate (Transcripted) (sac.lib.ca)

The certificate curriculum in library technology is designed to successfully prepare students for employment above the beginning clerk level as paraprofessionals in school, public, special, or academic libraries. Course content covers terminology, organization, procedures, standards, practices and fieldwork. Entry-level positions are available in this field as library technical assistants, library assistants, library technicians and library media technicians. Prior to completion of the Library Technology Certificate students must acquire keyboarding skills (recommended keyboarding speed is at least 40 words per minute). This may be accomplished by successfully completing Business Applications 115 A or B, Computer Keyboarding Speed and Accuracy Development, OR, by credit by exam (contact the Business Applications Department if interested in the exam).

Students must meet with the Library Technology Chair and Counselor for academic advisement before beginning the program. To receive a Certificate in Library Technology a grade of "C", or better is required for each major course. Library Technology 053 is the only Pass/No Pass course of the program. LT 053 requires a "Pass" grade.

A Certificate in Library Technology can be earned through completion of the following required courses:

Course	Units
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I	1
—OR—	
Business Applications 115B, Computer Keyboarding Speed and Accuracy Development II	
Business Applications 179, Introduction to Microsoft Office (4)	3-4
—OR—	
Business Applications 183, Microsoft Word (3)	
Library Technology 101, Introduction to Library Technology*	3
Library Technology 110, Technical Services*	3
Library Technology 054, Children's Library Services*	3
Library Technology 122, Public Services*	3
Library Technology 102, Information Sources for Paraprofessionals: Tools and Techniques*	3
Library Technology 053, Library Internship	3
Total	22-23

*Courses not taught every semester.

MANAGEMENT

Management Degree (sac.mgt.aa)

The associate degree curriculum in management is designed to prepare students for various management positions in business, government, and public organizations; to aid existing managers in upgrading their skills; and to assist employees for promotion to management/supervision positions. The core of the degree program provides the student with managerial skills and theory including communicating, decision-making, organizing, motivating, and human relations.

Course	Units
Business 100, Fundamentals of Business	3
Business 222, Business Writing	3
Business 120, Principles of Management (3)	
—OR—	
Management 120, Principles of Management (3)	3
Business 121, Human Relations and Organizational Behavior (3)	
—OR—	
Management 121, Human Relations and Organizational Behavior (3)	3
Management 125, Organizational Leadership	3

Select TWO courses from the following: 6-7

- Accounting 101, Financial Accounting (4)
- Business 105, Legal Environment of Business (3)
- Business 106, Culture and International Business - Kiss, Bow or Shake Hands (3)
- Business 125, Introduction to International Business (3)
- Business 150, Introduction to Information Systems and Applications (3)
- Management 135, Human Resource Management (3)
- Marketing 113, Principles of Marketing (3)

Total 21-22

Management Certificate (Transcripted) (sac.mgt.ca)

The certificate curriculum in management is designed to prepare students for various management positions in business, government, and public organizations; to aid existing managers in upgrading their skills; and to assist employees for promotion to management/supervision positions. The core courses provide students with managerial skills and theory including communicating, decision-making, organizing, motivating, and human relations. The student can gain practical skills in a specific area by specializing in human resource management, supervision, or small business management.

Course	Units
Business 100, Fundamentals of Business	3
Business 120, Principles of Management (3)	
—OR—	
Management 120, Principles of Management (3)	3
Business 121, Human Relations and Organizational Behavior	
—OR—	
Management 121, Human Relations and Organizational Behavior	3
Business 222, Business Writing	
—OR—	
Management 122, Business Communications	3

Select TWO courses from the following: 6-7

- Accounting 101, Financial Accounting (4)
- Business 105, Legal Environment of Business (3)
- Business 106, Culture and International Business - Kiss, Bow or Shake Hands (3)
- Business 125, Introduction to International Business (3)
- Business 150, Introduction to Information Systems and Applications (3)
- Management 135, Human Resource Management (3)
- Marketing 113, Principles of Marketing (3)

Total 21-22



This degree is pending approval from the California Community College Chancellor's Office. Please consult a SAC counselor and the SAC college website for the latest information.

Retail Management Degree (sac.mgtre.aa)

The program is approved by the Western Association of Food Chains, and persons completing the prescribed courses are eligible to receive both the ECC Certificate of Competence and the WAFC Retail Management Certificate. The WAFC Retail Management Certificate is a specially recognized program designed to prepare individuals for the fast-paced retail industry. This program is also intended to help students develop an understanding of the retail manager's job and the requirements for success in the retail environment.

Course	Units
Accounting 101, Financial Accounting	4
Business 080, Business Mathematics	3
Business 120, Principles of Management	3
Management 120, Principles of Management	
Business 121, Human Relations and Organizational Behavior	3
Management 121, Human Relations and Organizational Behavior	
Business 222, Business Writing	3
Management 122, Business Communications	
Computer Science 100, The Computer and Society	3
Management 135, Human Resource Management	3
Marketing 111, Principles of Retailing	3
Marketing 113, Principles of Marketing	3
Communication Studies 101, Introduction to Interpersonal Communication	3
Communication Studies 101H, Honors Introduction to Interpersonal Communication	
Total	31

Retail Management Certificate (Transcripted) (sac.mgtrt.ca)

Course	Units
Accounting 101, Financial Accounting/	4
Business 080, Business Mathematics	3
Business 120, Principles of Management	3
Management 120, Principles of Management	
Business 121, Human Relations and Organizational Behavior	3
Management 121, Human Relations and Organizational Behavior	
Business 222, Business Writing	3
Management 122, Business Communications	
Computer Science 100, The Computer and Society	3
Management 135, Human Resource Management	3
Marketing 111, Principles of Retailing	3
Marketing 113, Principles of Marketing	3
Communication Studies 101, Introduction to Interpersonal Communication	3
Communication Studies 101H, Honors Introduction to Interpersonal Communication	
Total	31

Human Resource Management Certificate (Untranscripted) (sac.mgthr.cert)

The Human Resources Management Certificate is designed to prepare students for human resources management positions in business, government, and other organizations; to aid existing managers in upgrading human resource management skills; and to assist employees for promotion to management/supervision positions. The certificate program provides the student with practical managerial skills and theory.

Major requirements for the certificate:

Course	Units
Business 105, Legal Environment of Business	3
Business 120, Principles of Management	3
Management 120, Principles of Management	
Business 121, Human Relations and Organizational Behavior	3
Management 121, Human Relations and Organizational Behavior	
Management 135, Human Resource Management	3
Total	12

Small Business Certificate (Untranscripted) (sac.mgtsb.cert)

The certificate in small business management is designed to prepare students for owning or operating a small business or organization. The core of the certificate provides the student with planning, organizing, leading and controlling skills and theory including communicating, decision-making, organizing, motivating, and human relations. The certificate program provides practical business management skills for the student.

Requirements for the certificate:

Course	Units
Accounting 035, QuickBooks	2
Business 120, Principles of Management	3
Management 120, Principles of Management	
Business 170, Principles of Small Business Management	3
Marketing 113, Principles of Marketing	3

Select ONE of the following courses:

- Business 100, Fundamentals of Business (3)
- Entrepreneurship 105, Social Media, Bootstrapping, and Market Validation (2)
- Entrepreneurship 109, Powerful Presentations (2)

Total	13-14
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Supervision Certificate (Untranscripted) (sac.mgtsv.cert)

The Supervision Certificate is designed to prepare students for various supervisory positions in business, government, and public organizations; to aid existing managers in upgrading their skills; and to assist employees for promotion to management/supervision positions. The certificate program provides practical skills for the student to use on the job.

Course	Units
Business 120, Principles of Management	3
Management 120, Principles of Management	
Business 121, Human Relations and Organizational Behavior	3
Management 121, Human Relations and Organizational Behavior	
Business 222, Business Writing	3
Management 122, Business Communications	
Management 125, Organizational Leadership	3
Total	12



MANUFACTURING TECHNOLOGY

The Manufacturing Technology Department offers an associate degree or certificate in Conventional Machining, CNC Programmer A, CNC Machine Set Up and Operation, and CAD/CAM. The following courses are required as a core for all of the programs:

Core Course	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
Total Core Requirements	15

CNC Lathe Set Up and Operation Option Degree (sac.mngla.as)

In addition to the general education requirements, the associate degree curriculum in manufacturing technology computer numerical control machine set up and operation is designed to prepare the student for entry or advancement in the CNC Machine Operator Specialty of manufacturing technology.

Major requirements for the associate degree:

Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 059, Advanced Turning Concepts and Operations	3
Manufacturing Technology 076, CNC Turning Center Set Up and Operation	3
Manufacturing Technology 078, Mastercam Lathe	3
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation	3

Select nine units from the following electives:	9
Manufacturing Technology 028, Basic Metals Technology (3)	
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	
Manufacturing Technology 074, CNC Milling Center Set Up and Operation (3)	
Manufacturing Technology 075, Mastercam 3D Geometry, 3D Surfaces (3)	
Manufacturing Technology 077, Mastercam 3D Toolpath and CAM Applications (3)	
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation (3)	
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling (3)	
Manufacturing Technology 105, Solidworks Advanced Solid Modeling (3)	
Manufacturing Technology 106, Solidworks Drawings (3)	
Welding 008, Oxyacetylene-Arc Welding (3)	
Total	36

CNC Lathe Set Up and Operation Option Certificate (Transcribed) (sac.mngla.ca)

The certificate of achievement curriculum in manufacturing technology, computer numerical control machine set up and operation is designed to prepare the student for entry or advancement in the CNC Machining Industry.

Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 059, Advanced Turning Concepts and Operations	3
Manufacturing Technology 076, CNC Turning Center Set Up and Operation	3
Manufacturing Technology 078, Mastercam Lathe	3
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation	3

Select nine units from the following electives:	9
Manufacturing Technology 028, Basic Metals Technology (3)	
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	
Manufacturing Technology 074, CNC Milling Center Set Up and Operation (3)	
Manufacturing Technology 075, Mastercam 3D Geometry, 3D Surfaces (3)	
Manufacturing Technology 077, Mastercam 3D Toolpath and CAM Applications (3)	
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation (3)	
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling (3)	
Manufacturing Technology 105, Solidworks Advanced Solid Modeling (3)	
Manufacturing Technology 106, Solidworks Drawings (3)	
Welding 008, Oxyacetylene-Arc Welding (3)	
Total	36



CNC Machine Set Up and Operation Option Degree (sac.mngma.as)

In addition to the general education requirements, the associate degree curriculum in manufacturing technology computer numerical control machine set up and operation is designed to prepare the student for entry or advancement in the CNC Machine Operator Specialty of manufacturing technology.

Major requirements for the associate degree:

Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 059, Advanced Turning Concepts and Operations	3
Manufacturing Technology 068, Advanced Milling Concepts and Operations	3
Manufacturing Technology 074, CNC Milling Center Set Up and Operation	3
Manufacturing Technology 076, CNC Turning Center Set Up and Operation	3
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation	3
Select six units from the following electives:	6
Manufacturing Technology 028, Basic Metals Technology (3)	
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	
Manufacturing Technology 075, Mastercam 3D Geometry, 3D Surfaces (3)	
Manufacturing Technology 078, Mastercam Lathe (3)	
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	
Manufacturing Technology 098, Topics (3)	
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling (3)	
Manufacturing Technology 105, Solidworks Advanced Solid Modeling (3)	
Manufacturing Technology 106, Solidworks Drawings (3)	
Welding 008, Oxyacetylene-Arc Welding (3)	
Total	29

CNC Machine Set Up and Operation Option Certificate (Transcripted) (sac.mngma.ca)

The certificate of achievement curriculum in manufacturing technology computer numerical control machine set up and operation is designed to prepare the student for entry or advancement in the CNC Machine Operator Specialty of manufacturing technology.

Major requirements for the associate degree:

Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 059, Advanced Turning Concepts and Operations	3
Manufacturing Technology 068, Advanced Milling Concepts and Operations	3
Manufacturing Technology 074, CNC Milling Center Set Up and Operation	3
Manufacturing Technology 076, CNC Turning Center Set Up and Operation	3
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation	3
Select six units from the following electives:	6
Manufacturing Technology 028, Basic Metals Technology (3)	
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	
Manufacturing Technology 075, Mastercam 3D Geometry, 3D Surfaces (3)	
Manufacturing Technology 077, Mastercam 3D Toolpath and CAM Applications (3)	
Manufacturing Technology 078, Mastercam Lathe (3)	
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	
Manufacturing Technology 106, Solidworks Drawings (3)	
Welding 008, Oxyacetylene-Arc Welding (3)	
Total	36



CNC Milling Machine Set Up and Operation Option Degree (sac.mngmi.as)

In addition to the general education requirements, the associate degree curriculum in manufacturing technology computer numerical control machine set up and operation is designed to prepare the student for entry or advancement in the CNC Machine Operator Specialty of manufacturing technology.

Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 059, Advanced Turning Concepts and Operations	3
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths	3
Manufacturing Technology 074, CNC Milling Center Set Up and Operation	3
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation	3
Select six units from the following electives:	6
Manufacturing Technology 028, Basic Metals Technology (3)	
Manufacturing Technology 059, Advanced Turning Concepts and Operations (3)	
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	
Manufacturing Technology 075, Mastercam 3D Geometry, 3D Surfaces (3)	
Manufacturing Technology 076, CNC Turning Center Set Up and Operation (3)	
Manufacturing Technology 077, Mastercam 3D Toolpath and CAM Applications (3)	
Manufacturing Technology 078, Mastercam Lathe (3)	
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling (3)	
Manufacturing Technology 105, Solidworks Advanced Solid Modeling (3)	
Manufacturing Technology 106, Solidworks Drawings (3)	
Welding 008, Oxyacetylene-Arc Welding (3)	
Total	33

CNC Milling Machine Set Up and Operation Option Certificate (Transcripted) (sac.mngmi.ca)

The certificate of achievement curriculum in manufacturing technology computer numerical control machine set up and operation is designed to prepare the student for entry or advancement in the CNC Milling Machine Operator Specialty of manufacturing technology.

Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 068, Advanced Milling Concepts and Operations	3
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths	3
Manufacturing Technology 074, CNC Milling Center Set Up and Operation	3
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation	3
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation	3
Manufacturing Technology 095, Mastercam 5 Axis Mill Toolpath and Application	3
Select three units from the following electives:	3
Manufacturing Technology 028, Basic Metals Technology (3)	
Manufacturing Technology 059, Advanced Turning Concepts and Operations (3)	
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	
Manufacturing Technology 075, Mastercam 3D Geometry, 3D Surfaces (3)	
Manufacturing Technology 076, CNC Turning Center Set Up and Operation (3)	
Manufacturing Technology 077, Mastercam 3D Toolpath and CAM Applications (3)	
Manufacturing Technology 078, Mastercam Lathe (3)	
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling (3)	
Manufacturing Technology 105, Solidworks Advanced Solid Modeling (3)	
Manufacturing Technology 106, Solidworks Drawings (3)	
Welding 008, Oxyacetylene-Arc Welding (3)	
Total	36

CNC Programmer A-Mastercam Option Degree (sac.mngpa.as)

In addition to the general education requirements, the associate degree curriculum in manufacturing technology-computer numerical control programmer A (Mastercam) is designed to prepare the student for entry or advancement in the CNC programming specialty of the machine tool field.



Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 073, Mastercam-2D Geometry, 2D Toolpaths	3
Manufacturing Technology 074, CNC Milling Center Set Up and Operation 3	3
Manufacturing Technology 075, Mastercam-3D Geometry, 3D Surfaces	3
Manufacturing Technology 076, CNC Turning Center Set Up and Operation	3
Manufacturing Technology 077, Mastercam-3D Toolpath and CAM Applications	3
Manufacturing Technology 078, Mastercam Lathe	3

Select three units from the following electives:

Manufacturing Technology 028, Basic Metals Technology (3)	3
Manufacturing Technology 059, Advanced Turning Concepts and Operations (3)	3
Manufacturing Technology 068, Advanced Milling Concepts and Operations (3)	3
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	3
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	3
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	3
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling (3)	3
Manufacturing Technology 105, Solidworks Advanced Solid Modeling (3)	3
Manufacturing Technology 106, Solidworks Drawings (3)	3
Total	36

CNC Programmer A-Mastercam Option Certificate (Transcripted) (sac.mngpa.ca)

The certificate of achievement curriculum in manufacturing technology computer numerical control programmer A (Mastercam) is designed to prepare the student for entry or advancement in the CNC programming specialty of Manufacturing Technology.

Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 073, Mastercam-2D Geometry, 2D Toolpaths	3
Manufacturing Technology 074, CNC Milling Center Set Up and Operation 3	3
Manufacturing Technology 075, Mastercam-3D Geometry, 3D Surfaces	3
Manufacturing Technology 076, CNC Turning Center Set Up and Operation	3
Manufacturing Technology 077, Mastercam-3D Toolpath and CAM Applications	3
Manufacturing Technology 078, Mastercam Lathe	3

Select three units from the following electives:

Manufacturing Technology 028, Basic Metals Technology (3)	3
Manufacturing Technology 059, Advanced Turning Concepts and Operations (3)	3
Manufacturing Technology 068, Advanced Milling Concepts and Operations (3)	3
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	3
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	3
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation (3)	3
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	3
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling (3)	3
Manufacturing Technology 105, Solidworks Advanced Solid Modeling (3)	3
Manufacturing Technology 106, Solidworks Drawings (3)	3
Total	6

Conventional Machining Option Degree (sac.mngcm.as)

In addition to the general education requirements, the associate degree in manufacturing technology, conventional machining, is designed to prepare the student for entry or advancement in the conventional machine tool operation specialty.

Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 059, Advanced Turning Concepts and Operations	3
Manufacturing Technology 068, Advanced Milling Concepts and Operations	3
Manufacturing Technology 069, Job Shop Skills	6
Welding 008, Oxyacetylene-Arc Welding	3

Select six units from the following electives:

Manufacturing Technology 028, Basic Metals Technology (3)	3
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	3
Manufacturing Technology 074, CNC Milling Center Set Up and Operation (3)	3
Manufacturing Technology 076, CNC Turning Center Set Up and Operation (3)	3
Manufacturing Technology 077, Mastercam 3D Toolpath and CAM Applications (3)	3
Manufacturing Technology 078, Mastercam Lathe (3)	3
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	3
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	3
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation (3)	3
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	3
Manufacturing Technology 106, Solidworks Drawings (3)	3
Total	36



Conventional Machining Option Certificate (Transcripted) (sac.mngcm.ca)

The certificate of achievement curriculum in manufacturing technology, conventional machining, is designed to prepare the student for entry or advancement in the conventional machine tool operation field.

Required Courses:

Manufacturing Technology Core Courses 15 units	Units
Manufacturing Technology 011, Basic Mechanical Blueprint Reading	2
Manufacturing Technology 053, Technical Mathematics	3
Manufacturing Technology 058, Basic Machining Concepts and Operation	3
Manufacturing Technology 071, CNC Program Writing	4
Manufacturing Technology 114, Geometric Dimensioning and Tolerancing	3
—AND—	
Manufacturing Technology 059, Advanced Turning Concepts and Operations	3
Manufacturing Technology 068, Advanced Milling Concepts and Operations	3
Manufacturing Technology 069, Job Shop Skills	6
Welding 008, Oxyacetylene-Arc Welding	3
Select six units from the following electives:	6
Manufacturing Technology 028, Basic Metals Technology (3)	
Manufacturing Technology 073, Mastercam 2D Geometry, 2D Toolpaths (3)	
Manufacturing Technology 074, CNC Milling Center Set Up and Operation (3)	
Manufacturing Technology 076, CNC Turning Center Set Up and Operation (3)	
Manufacturing Technology 077, Mastercam 3D Toolpath and CAM Applications (3)	
Manufacturing Technology 078, Mastercam Lathe (3)	
Manufacturing Technology 084, Advanced CNC Mill Set Up and Operation (3)	
Manufacturing Technology 086, Advanced CNC Lathe Programing, Set Up and Operation (3)	
Manufacturing Technology 094, CNC Horizontal Mill Setup and Operation (3)	
Manufacturing Technology 103, Solidworks Basic Solid Modeling (3)	
Manufacturing Technology 106, Solidworks Drawings (3)	
Total	36

Solidworks 3D Solid Modeling Certificate (Untranscripted) (sac.mng3d.cert)

The certificate curriculum is designed for students who would like to earn certification of proficiency in the use of the Solidworks 3D Solid Modeling software. The program provides recognition for the completion of four semester-length courses in the use of the Solidworks software.

Major requirements for the certificate:

Course	Units
Manufacturing Technology 103, Solidworks Basic Solid Modeling	3
—OR—	
Engineering 103, Solidworks Basic Solid Modeling	
Manufacturing Technology 104, Solidworks Intermediate Solid Modeling	3
—OR—	
Engineering 104, Solidworks Intermediate Solid Modeling	
Manufacturing Technology 105, Solidworks Advanced Solid Modeling	3
—OR—	
Engineering 105, Solidworks Advanced Solid Modeling	
Manufacturing Technology 106, Solidworks Drawings	3
Total	12

MARKETING

The Contemporary Marketing Degree and Certificate programs are designed to prepare students for careers in marketing and to assist existing marketing managers and professionals in upgrading their skills. New career opportunities in marketing will be highlighted. The courses include the latest concepts, techniques and technology used to successfully develop, price, promote, and distribute products and services in a global economy. The program provides students with cutting-edge practical and applicable marketing skills for New Media Marketing.

Contemporary Marketing Degree (sac.mktg.aa)

Core Courses:	Units
Marketing 113, Principles of Marketing	3
Business 222, Business Writing	3
Business 100, Fundamentals of Business	3
—OR—	
Entrepreneurship 100, Introduction to Innovation and Entrepreneurship	3

Sequence Requirements:

(All sequence courses must be completed to earn this degree)

Sales Sequence:

Marketing 120, Understanding Consumer Behavior – Getting them to Buy, Buy, Buy	1
Marketing 121, Negotiating - Getting to a Win-Win	1
Marketing 122, Sales Strategies that Build Business Relationships and Increase Sales	2

21st Century Marketing Sequence:

Marketing 123, Marketing and Technology – Trends and Cutting Edges	1
Marketing 124, Cause Marketing and Public Relations – Doing Well by Doing Good	1
Entrepreneurship 105, Social Media, Bootstrapping, and Market Validation	2

International Marketing Sequence:

Business 141, The Globalization of Marketing	1
Business 142, International Market Research and Planning	1
Business 143, Packaging, Pricing and Promoting Products/ Services for Export	1
Business 145, Channels of Distribution in International Markets	1

Advertising and Distribution Sequence:

Marketing 125, Advertising and Promotion – Get the Word Out and Keep your Customers Buying	2
Marketing 126, Distributing Products and Services – Reaching Customers Where They Shop	2

Capstone Course

Entrepreneurship 110, Capstone Business Simulations	3
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Select ONE course from the following:

Business 125, Introduction to International Business (3)	2-3
Business 127, Introduction to E-Commerce (3)	
Entrepreneurship 107, Money, Finance and Accounting for Entrepreneurs (2)	
Entrepreneurship 109, Powerful Presentations (2)	
Marketing 127, Introduction to E-Commerce (3)	
Total	30-31



Contemporary Marketing Certificate (Untranscripted) (sac.mktg.cert)

Core Courses:	Units
Marketing 113, Principles of Marketing	3
Sequence Requirements: (All sequence courses must be completed to earn this degree)	
Sales Sequence:	
Marketing 120, Understanding Consumer Behavior – Getting them to Buy, Buy, Buy	1
Marketing 121, Negotiating - Getting to a Win-Win	1
Marketing 122, Sales Strategies that Build Business Relationships and Increase Sales	1
21st Century Marketing Sequence:	
Marketing 123, Marketing and Technology - Trends and Cutting Edges	1
Marketing 124, Cause Marketing and Public Relations – Doing Well by Doing Good	1
Entrepreneurship 105, Market Validation and Bootstrap Marketing	2
International Marketing Sequence:	
Business 141, The Globalization of Marketing	1
Business 142, International Market Research and Planning	1
Business 143, Packaging, Pricing and Promoting Products/Services for Export	1
Business 145, Channels of Distribution in International Markets	1
Advertising and Distribution Sequence:	
Marketing 125, Advertising and Promotion – Get the Word Out and Keep your Customers Buying	2
Marketing 126, Distributing Products and Services – Reaching Customers Where They Shop	2
Total	18

MATHEMATICS

**Option 1
Mathematics Degree (sac.math.as)**

The associate degree curriculum in mathematics prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. Employment opportunities are available as mathematicians in government, industry and education. Please see a counselor for specific course requirements for your transfer university.

Major requirements for the associate in arts or science degree:

Course	Units
Mathematics 180, Analytic Geometry and Calculus I —OR—	4
Mathematics 180H, Honors Analytic Geometry and Calculus	4
Mathematics 185, Analytic Geometry and Calculus II	4
Mathematics 280, Intermediate Calculus	4
Mathematics 287, Introduction to Linear Algebra and Differential Equations (5)	5
Computer Science 120, Introduction to Programming —OR—	3
Computer Science 112, Java Programming	3
Total	20

**Option 2
Associate in Science in Mathematics for Transfer (sac.math.ast)**

The Associate in Science in Mathematics for Transfer (A.S.-T in Mathematics) prepares students to move into the CSU system leading to a baccalaureate degree in Mathematics. Employment opportunities are available as mathematicians in government, industry, education, technology, gaming and healthcare. Please consult a counselor regarding specific course requirements for your transfer institution. Successful completion of the A.S.-T in Mathematics degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Mathematics major. See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees. Upon completion of the A.S.-T in Mathematics, students will gain a strong foundation in the mathematical field. This knowledge base will be grounded in quantitative and analytical reasoning. Additionally, students will have the capacity to write and communicate with mathematical models and apply appropriate problem solving techniques to real world phenomena.

Courses	Units
Required Core (12 units)	
Mathematics 180, Analytic Geometry and Calculus I —OR—	4
Mathematics 180H, Honors Analytic Geometry and Calculus	4
Mathematics 185, Analytic Geometry and Calculus II	4
Mathematics 280, Intermediate Calculus	4
List A: Select one course from the following: (5 units)	
Mathematics 287, Introduction to Linear Algebra and Differential Equations (5)	5
List B: Select one course from the following: (3-4 units)	
Computer Science 129, Introduction to Computer Organization (4)	3-4
Computer Science 112, Java Programming (3)	
Computer Science 120, Introduction to Programming (3)	
Computer Science 121, Programming Concepts (3)	
Computer Science 131, Data Structures Concepts (3)	
Computer Science 141, UNIX Operating System (3)	
Computer Science 213, C# Programming (3)	3-4
Physics 217, Engineering Physics I (4)	
Total Units	20-21

INSTRUCTIONAL PROGRAMS

MEDICAL ASSISTANT

Medical Assistant-Administrative/Clinical Degree (sac.ma.as)

In addition to the general education requirements, the associate degree of science curriculum for medical assistant administrative/clinical is designed to prepare a student for employment in a medical office, a hospital business office, a clinic, or allied health facility. Careers are available as medical assistants, front and back office, insurance secretaries, admitting clerks, medical records clerks and receptionists in all medical facilities.

Course content includes medical terminology; medical typing, computer techniques and skills; medical forms, reports, and charts; medical insurance, billing and collections, bookkeeping; effective human relations as related to a medical office; clinical procedures such as giving injections, sterilizing instruments, monitoring vital signs, assisting with minor surgery, instrument identification; and professional ethics and legal aspects.

Graduates will be qualified to assist doctors in clinical situations or function under the direct supervision of a medical doctor. Graduates will also be qualified to perform all clerical duties normally required in the medical office, hospital business office, clinics, and allied health facilities.



Medical Assistant Degree Option:

Course	Units
Medical Assistant 051A, Beginning Medical Terminology	3
Medical Assistant 051B, Advanced Medical Terminology	3
Medical Assistant 053, Medical Assistant-Administrative	3
Medical Assistant 054, Preparation of Medical Insurance Forms	3
Medical Assistant 055, Medical Assistant-Clinical Back Office	3
Business 080, Business Mathematics	3

Elective must be 3-4 units selected from the following courses: 3-4

- Business Applications 179, Introduction to Microsoft Office (4)
- Business Applications 180, Advanced Microsoft Office (3)
- Business Applications 183, Microsoft Word (3)
- Business Applications 184, Advanced Microsoft Word for the Workplace (3)
- Medical Assistant 020, Bloodborne and Airborne Pathogen Standards (0.5)
- Medical Assistant 056, Computer Applications for the Medical Office (3)

Recommended electives:

- Medical Assistant 001, Cooperative Work Experience Education - Occupational (1-16)
- Medical Assistant 020, Bloodborne and Airborne Pathogen Standards (0.5)
- Medical Assistant 056, Computer Applications for the Medical Office (3-0)
- Medical Assistant 098, Topics (0.5-3)

Total 21-22

Medical Assistant-Administrative/Clinical Certificate (Transcripted) (sac.ma.ca)

The certificate of achievement curriculum for medical assistant administrative / clinical is designed to prepare a student for employment in a medical office, a hospital business office, a clinic, or allied health facility. Careers are available as medical assistants, front and back office, insurance secretaries, admitting clerks, medical records clerks, and receptionists in all medical facilities.

Course content includes medical terminology; medical typing, computer techniques and skills; medical forms, reports and charts; medical insurance, billing and collections; bookkeeping; effective human relations as related to a medical office; clinical procedures such as giving injections, sterilizing instruments, monitoring vital signs, assisting with minor surgery, instrument identification; and professional ethics and legal aspects.

Recipients of the certificate of achievement will be qualified to assist doctors in clinical situations or function under the direct supervision of a medical doctor. Recipients will also be qualified to perform all clerical duties normally required in the medical office, hospital business office, clinics and allied health facilities.

Requirements for the Certificate of Achievement:

Course	Units
Medical Assistant 051A, Beginning Medical Terminology	3
Medical Assistant 051B, Advanced Medical Terminology	3
Medical Assistant 053, Medical Assistant-Administrative	3
Medical Assistant 054, Preparation of Medical Insurance Forms	3
Medical Assistant 055, Medical Assistant-Clinical Back Office	3
Total	15

MODERN LANGUAGES

Option I: Modern Languages Degree (sac.ml.aa)

The associate degree curriculum in modern languages is designed to meet the needs of both the student who wishes to transfer to a four-year institution and the student who wishes to achieve basic conversational ability in the language. Completion of the associate of arts degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree and then to possible careers requiring modern languages proficiency.

Note: Presently, the associate degree is offered in French and Spanish. The degree requires 26 units, which includes a minimum of 13 units in the major language with completion of both courses numbered 201 and 202.

Course	Units
Required courses for the concentration in Spanish: 23 units	
Spanish 101, Elementary Spanish I —OR—	5
Spanish 101H, Honors Elementary Spanish I	
Spanish 102, Elementary Spanish II —OR—	5
Spanish 102H, Honors Elementary Spanish II	
Spanish 201, Intermediate Spanish I —OR—	5
Spanish 201H, Honors Intermediate Spanish I	
Spanish 202, Intermediate Spanish II —OR—	5
Spanish 202H, Honors Intermediate Spanish II 5	
Spanish 212, College Business Spanish 3 —OR—	5
Spanish 213, College Spanish Composition 3	

Required courses for the concentration in Spanish: 23 units

French 101, Elementary French I	5
French 102, Elementary French II	5
French 201, Intermediate French I —OR—	5
French 201H, Honors Intermediate French I	
French 202, Intermediate French II —OR—	5
French 202H, Honors Intermediate French II 5	
French 211, Intermediate Conversation and Composition I	2
French 214, Intermediate Conversation and Composition II	2

Students who have received credit for the first two semesters must take ten (10) units in a second language other than the major: 10

- Chinese 101, Elementary Chinese I (5)
- Chinese 102, Elementary Chinese II (5)
- French 101, Elementary French I (5)
- French 102, Elementary French II (5)
- Japanese 101, Elementary Japanese I (5)
- Japanese 102, Elementary Japanese II (5)
- Spanish 101, Elementary Spanish I (5)
- Spanish 101H, Honors Elementary Spanish I (5)
- Spanish 102, Elementary Spanish II (5)
- Spanish 102H, Honors Elementary Spanish II (5)
- Italian 120, Elementary Italian I (5)
- Italian 121, Elementary Italian II (5)
- Vietnamese, 101 Elementary Vietnamese I (5)
- Vietnamese, 102 Elementary Vietnamese II (5)



Plus three (3) units of electives from the following: **3**

Spanish 195A, Advanced Conversational Spanish (3)	
Spanish 195B, Advanced Conversational Spanish (3)	
A third language	
History 101, World Civilizations to the 16th Century (3)	
—OR—	
History 101H, Honors World Civilizations to the 16th Century (3)	
HIST 102, World Civilizations Since the 16th Century (3)	
—OR—	
History 102H, Honors World Civilizations Since the 16th Century (3)	
History 124, Mexican American History in the United States (3)	
—OR—	
History 124H, Honors Mexican American History in the United States (3)	
History 150, Latin American Civilization to Independence (3)	
—OR—	
History 151, Modern Latin American Civilization (3)	
Anthropology 100, Introduction to Cultural Anthropology (3)	
—OR—	
Anthropology 100H, Honors Introduction to Cultural Anthropology (3)	
Anthropology 104, Language and Culture (3)	
—OR—	
Anthropology 104H, Honors Language and Culture (3)	
English 104, Language and Culture (3)	
—OR—	
English 104H, Honors Language and Culture (3)	
English 271, Survey of World Literature (3)	
English 272, Survey of World Literature (3)	
Geography, 100 World Regional Geography (3)	
—OR—	
Geography, 100H Honors World Regional Geography (3)	
Geography, 101 Physical Geography (3)	
Total	26

**Option 2:
Associate in Arts in Spanish for Transfer (sac.ml.aat)**

The Associate in Arts in Spanish for Transfer (A.A.-T in Spanish) prepares students to transfer into the CSU system. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU. Please consult a counselor regarding specific course requirements for your transfer institution. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Spanish, students will have demonstrated success in introductory courses in Spanish including speaking, listening, writing, and reading. This knowledge will be evidenced by a wider understanding of basic historical and cultural aspects of Spanish speaking countries. In addition, students will have the capacity to write and think in a critically analytical way about issues pertaining to the diverse manifestation of the Spanish language throughout the world.

Required Courses: 20 units	Units
Spanish 101, Elementary Spanish I	
—OR—	
Spanish 101H, Honors Elementary Spanish I	5
Spanish 102, Elementary Spanish II	
—OR—	
Spanish 102H, Honors Elementary Spanish II	5
Spanish 201, Intermediate Spanish I	
—OR—	
Spanish 201H, Honors Intermediate Spanish I	5
Spanish 202, Intermediate Spanish II	
—OR—	
Spanish 202H, Honors Intermediate Spanish II	5

NOTE: Students who come to SAC with credit for Spanish 101 and 102 (or 2 and 3 years of high school Spanish respectively) must take the equivalent of 10 units from the following list of possible substitution courses, including another language at the 101 or 102 level.

Substitution Courses:

Ethnic Studies 101, Introduction to Ethnic Studies (3)	
—OR—	
Ethnic Studies 101H, Honors Introduction to Ethnic Studies (3)	
Anthropology 100, Introduction to Cultural Anthropology (3)	
—OR—	
Anthropology 100H, Honors Introduction to Cultural Anthropology (3)	
Sociology 100, Introduction to Sociology (3)	
—OR—	
Sociology 100H, Honors Introduction to Sociology (3)	
Sociology 140, Analysis of Social Trends and Problems (3)	
—OR—	
Sociology 140H, Honors Analysis of Social Trends and Problems (3)	
Women's Studies 101, Introduction to Women's Studies (3)	
Geography 100, World Regional Geography (3)	
—OR—	
Geography 100H, Honors World Regional Geography (3)	
Communications & Media Studies 103, Introduction to Intercultural Communication (3)	
—OR—	
Communications & Media Studies 103H, Honors Introduction to Intercultural Communication (3)	
Anthropology 104, Language and Culture (3)	
—OR—	
Anthropology 104H, Honors Language and Culture (3)	
English 104, Language and Culture (3)	
—OR—	
English 104H, Honors Language and Culture (3)	
History 150, Latin American Civilization to Independence (3)	
History 151, Modern Latin American Civilization (3)	
History 153, History of Mexico 3	

List A: Select one (3-4 units) **3-4**

Spanish 195A, Advanced Conversational Spanish 3	
—OR—	
Spanish 195B, Advanced Conversational Spanish 3	
History 124, Mexican American History in the United States 3	
—OR—	
History 124H, Honors Mexican American History in the United States 3	
History 105, Ancient Mesoamerican Civilization 3	
—OR—	
Anthropology 105, Ancient Mesoamerican Civilization 3	
Communications & Media Studies, 101, Introduction to Interpersonal Communication 3	
—OR—	
Communications & Media Studies, 101H Honors Introduction to Interpersonal Communication 3	
English 102H, Honors Literature and Composition 4	
—OR—	
English 102H, Honors Literature and Composition 4	
English 103, Critical Thinking and Writing (4)	
—OR—	
English 103H, Honors Critical Thinking and Writing (4)	
Philosophy 110, Critical Thinking 4	
—OR—	
Philosophy 110H, Honors Critical Thinking 4	
Spanish 213, College Spanish Composition 3	
Total	23-24



MUSIC

Option 1

Music Degree (sac.mus.aa)

The associate degree curriculum in music is formulated to meet the needs of the student who wishes to make music the major subject of concentration. Completion of the associate in arts degree prepares a student to move into a curriculum at a four-year institution leading to a baccalaureate degree, and then into careers in public and private teaching, professional performance areas, church music, music therapy, recreational music, composition, arranging and orchestration, and music copying. Please consult a SAC counselor for information about course requirements for particular four-year institutions.

Major requirements for the associate in arts degree:

Course	Units
Ensemble, 1 unit required for each of 4 semesters*	4
Applied Music, 1 course required for each of 4 semesters**	4
Music 111, Basic Music Theory and Musicianship I	4
Music 112, Music Theory and Musicianship II	4
Music 114A, Musicianship	1
Music 114B, Musicianship	1
Music 142, Creating Music with MIDI (1) —OR—	1-2
Music 146, Digital Recording Studio Techniques I (2)	
Music 211, Music History and Literature	3
Music 213, Theory 3	3
Music 214, Theory 4	3

*The ensemble course units may be chosen from the following list (take one ensemble four times or select different ensembles to meet this requirement):

- Music 132, The Jazz Singers (1)
- Music 134, Vocal Jazz Workshop (1)
- Music 135, Concert Chorale (1)
- Music 136, Collegiate Choir (1)
- Music 137, Chamber Choir (1)
- Music 141, Instrumental Ensembles (1)
- Music 171, Concert Band (1)
- Music 174, Percussion Ensemble (1)
- Music 175, Jazz Ensemble (1)
- Music 176, Jazz Band (1)
- Music 177, Latin Jazz Ensemble (1)
- Music 178, Mariachi (1)
- Music 181, Chamber Orchestra (1)
- Music 189, Guitar Ensemble (1)
- Music 241, Chamber Music Ensemble (1)
- Music 271, Symphonic Band (1)

**The applied music courses may be chosen from:

- Music 115A, Applied Music (Private Instruction) (1)
- Music 115B, Applied Music (Private Instruction) (1)
- Music 115C, Applied Music (Private Instruction) (1)
- Music 115D, Applied Music (Private Instruction) (1)
- Music 121, Beginning Voice (1)
- Music 122, Intermediate Voice (1)
- Music 123, Advanced Voice (1)
- Music 124, Advanced Vocal Production and Repertoire (1)
- Music 140, Instrumental Methods for Winds and Percussion (1)
- Music 161, Class Piano 1 (1)
- Music 162, Class Piano 2 (1)
- Music 163, Class Piano 3 (1)
- Music 164A, Intermediate Piano Repertoire I (1)
- Music 164B, Intermediate Piano Repertoire II (1)
- Music 168, Stylistic Interpretation of Piano Repertoire (1)
- Music 169, Harmonization at the Keyboard (1)
- Music 173, Beginning Rhythms in Percussion and Drums (1)
- Music 179, Technique Studies for Pianists (1)
- Music 180A, String Methods (1)
- Music 180B, Intermediate String Methods (1)
- Music 185, Beginning Classical Guitar (1)
- Music 186, Intermediate Classical Guitar (1)
- Music 187, Advanced Classical Guitar (1)
- Music 188, Advanced Classical Guitar Technique and Repertoire (1)
- Music 215A, Applied Music (Advanced Private Instruction) (1)
- Music 268, Intermediate Keyboard Repertoire (1)

Total 28-29

Option 2

Associate in Arts in Music for Transfer (sac.mus.aat)

The Associate in Arts in Music for Transfer (A.A.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in music, and then into careers in public and private teaching, professional performance, church music, music therapy, composition, arranging and orchestration. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Music, students will be able to demonstrate an understanding of music theory, harmony, and musicianship at the final level of a traditional lower division music sequence. Through public performance, students will demonstrate proficiency on their primary instrument (or voice) that will allow them to perform accurately and musically within a large ensemble and in a solo setting. Upon application to music programs at four year institutions, students will need to pass an audition for acceptance as well as pass skills tests for placement into music theory, musicianship, and piano classes. This transfer degree prepares students for this audition and placement test process at California State University Fullerton, California State University Long Beach, and other local four-year institutions.

Note: Although this Transfer Curriculum may provide sufficient preparation for some general Bachelor of Arts programs in Music, it is recommended that students supplement these degree requirements with four semesters of piano (Music 161, 162, 163, 164), one music history class (Music 101 or Music 211), and one technology class (Music 142 or Music 146) if they intend to transfer into Bachelor of Music programs in Performance, History and Literature, Music Education, or Composition. Please consult a SAC counselor for course requirements for particular four-year institutions.



Courses	Units
Required Core (24 units)	
Music 111, Basic Music Theory and Musicianship I	4
Music 112, Music Theory and Musicianship II	4
Music 114A, Musicianship	1
Music 114B, Musicianship	1
Music 115A, Applied Music (Private Instruction)	1
Music 115B, Applied Music (Private Instruction)	1
Music 115C, Applied Music (Private Instruction)	1
Music 115D, Applied Music (Private Instruction)	1
Music 213, Theory 3	3
Music 214, Theory 4	3
Ensembles, 1 unit required for each of 4 semesters*	4
Total Units	24

*The ensemble course units may be chosen from the following list (take one ensemble four times or select different ensembles to meet this requirement):

	Units
Music 135, Concert Chorale	1
Music 137, Chamber Choir	1
Music 171, Concert Band	1
Music 175, Jazz Ensemble	1
Music 181, Chamber Orchestra	1
Music 271, Symphonic Band	1

Digital Music Production Certificate (Untranscribed) (sac.musdm.cert)

The Digital Music Production Certificate is intended for students with an interest in creating musical products with the aid of current computer technology. Career opportunities in this area include:

- audio technician in a studio
- audio specialist for web design
- independent audio technician in a project studio
- audio technician/music specialist in a video post-production unit or company
- retail specialist in a music store
- music producer/composer for film, TV, radio
- audio specialist for a computer game company

The program provides students with hands on experience and a working knowledge of the creative and technical issue surrounding the production of digital audio and its application and synchronization with other media. Students will study various means of computer assisted digital audio production including sequencing, digital recording, recording studio techniques, mixdown and synchronization to video. The business of music as well as current and emerging technologies for web audio design will also be covered. A variety of music electives are available to help students gain experience in other musical skills including instruction on an instrument, ensemble playing, and music theory.

Requirements for the certificate:

Course	Units
Music 111, Basic Theory and Ear, Training	4
Music 142, Creating Music with MIDI	1
Music 143, Intermediate Techniques of MIDI Sequencing	1
Music 144, Projects in Electronic Music	1
Music 146, Digital Recording Studio Techniques I	2
Music 147, Digital Recording Studio Techniques II	2
Music 148, Digital Music Synchronization to Video	2
Music 149, The Business of Music	2
Plus 2 units from the elective list below	2
Total	17

Electives must be chosen from the following courses: Music 109, 112, 121, 122, 123, 124, 125A, 125B, 140, 161, 162, 163, 164A, 164B, 166A, 166B, 170, 173, 185, 186, 187, 188, 190, 218.

NURSING

Nursing Degree Pre-Nursing for the Bachelor's Degree in Nursing (sac.nrspr.as)

Courses recommended for upper division standing (check with the Division Counselor and the transfer school to verify current courses):

California State University, Long Beach; California State University, Fullerton; and California State University, Dominguez Hills.

Course	Units
Chemistry 119, Fundamentals-General and Organic	5
Biology 239, General Human Anatomy	4
Biology 249, Human Physiology	4
Biology 229, General Microbiology	5
Psychology 100, Introduction to Psychology	3
—OR—	
Psychology 100H, Honors Introduction to Psychology	4
English 101, Freshman Composition	
—OR—	4
English 101H, Honors Freshman Composition	

Recommended electives: Biology 217.

Please check with transfer institution for additional prerequisite courses.

Nursing for the R.N. Degree (sac.nrsrn.as)

The program is designed to meet the needs of licensed R.N.'s who wish to gain college credits for previous educational preparation and to broaden their knowledge by taking general education courses to fulfill the requirements for the associate in science degree with a major in nursing. Transcript evaluation may allow up to a maximum of 38 units of credit for previous nursing education.

Requirements for an associate degree:

1. The candidate for the degree must possess a current California R.N. license.
2. Each candidate for the A.S. degree program must satisfy the general education requirements for graduation.
3. The following Nursing-Continuing Education courses may be used as electives: 098, 198.

Nursing-Registered Nursing Degree (sac.nrsrg.as)

The Associate Degree Nursing program is approved by the California Board of Registered Nursing and accredited by the Accreditation Commission for Education in Nursing. It is designed to qualify the student for the licensure examination and entry into practice as a Registered Nurse (R.N.). Additionally, completion of the Associate in Science Degree in Nursing prepares a student to transfer to a four-year institution for completion of a baccalaureate degree (see a counselor for requirements). The curriculum follows the Santa Ana College Conceptual Framework for Nursing.

Advanced placement in the program may be granted to those students with certain prior experience, licensed vocational nurse (L.V.N.), registered nursing education, or equivalent. Advance placed/Transfer/Challenge applicants require an individual appointment with the Program Director or designee.



Effective January 2011, all students, including Advance placed/Transfer/Challenge applicants, are required to successfully complete the diagnostic assessment test of preparation, Assessment Technology Institute's Test of Essential Academic Skills (TEAS) prior to entry into the Nursing Program. Remediation is required if the test is not passed.

Completion of an R.N. orientation session (call the Counseling Department for an appointment) is strongly advised.

Please refer to www.sac.edu (go to the A-Z link, click "N", then click Nursing) for current and updated information on admission information.

Admission Prerequisites:

These prerequisites are also required for Nursing-Registered 101, Nursing Process: Non-Critical Adults, and Nursing-Registered 101L, Nursing Actions: Non-Critical Adults. Nursing students must meet current departmental catalog requirements.

1. Completion of the 12th grade, verified by transcript or equivalent GED score validated by appropriate testing institution, AND submission of transcripts from all colleges attended.
2. Courses or equivalents (units are semester units):

Biology 239, General Human Anatomy	4
Biology 249, Human Physiology	4
Biology 139, Health Microbiology	4
English 101, Freshman Composition	4
—OR—	
English 101H, Honors Freshman Composition	
Total	16

Biology 229 General Microbiology (5 Units) can be substituted for Biology 139 Health Microbiology.

The science prerequisites must be completed within seven (7) years of applying to the Nursing Program.

Admission Procedures:

For Students Entering the First Semester:

A multi-criteria admission selection process is being used to select students to enter the first semester. The multi-criteria admission selection process is based on points given for the science prerequisites' GPA, completion of English and general education courses, previous degrees, recent work in healthcare, life experiences, fluency in specific languages, and results on the TEAS test. Please refer to the Nursing website for specific point breakdown. The multi-criteria applications are accepted from February 15th through March 2nd for fall admissions and from September 15th through September 30th for spring admissions. The science prerequisites require a grade of "C" or higher with an overall Grade Point Average (GPA) of 2.5 or higher.

For Advanced Placed Students:

There is an entry list for advance-placed students. All the prerequisites require a grade of "C" or higher with an overall Grade Point Average (GPA) of 2.5 or higher. After completing the prerequisites for advanced placement, students must complete a Prerequisite Verification Form. After prerequisite verification, students are placed on the entry list for the appropriate semester. Please refer to www.sac.edu for information.

Students are admitted on a space available basis according to "first to complete all of the requirements, first admitted." Continuing and Re-entry students have priority over advance-placed students. A student who successfully completes all requirements but who is not accepted because of limited class size will be accepted as soon as space becomes available.

Students may turn down entry to the program once. A second refusal will result in the student's name being placed at the end of the entry list. A third refusal will result in removal from the list.

Santa Ana College reserves the right to designate a certain number of spaces for contract agreements and/or meet grant designated requirements.

Upon acceptance to all semesters:

1. Evidence of a physical examination by an M.D., Physician Assistant, or Nurse Practitioner must be submitted upon entry into the program verifying the applicant's physical ability to perform the academic and clinical requirements of an R. N. student. Examinations, including immunization status, must have been performed within 4 months prior to beginning the Nursing Program.
2. A cleared background check is required of all Nursing students after acceptance into the Nursing Program.
3. A cleared drug test may be required of all entering Nursing students after acceptance into the program.
4. A current (within one year of issue date) CPR card for Healthcare Providers from the American Heart Association is required upon entry to the Nursing Program and renewed every year.
5. Malpractice insurance must be maintained throughout the Nursing Program.

Students with incomplete physical information, CPR, malpractice insurance, background check, and drug testing, if required, will not be allowed into the clinical setting because of mandatory hospital and program requirements. If a student re-enters the program, a new background check and drug testing, if required, must be provided upon re-entry.

Students who are a "NO SHOW" for the first day of class will be dropped and replaced by an alternate.

It is the student's responsibility to contact the Health Sciences/Nursing Office (714) 564-6825 when a change of address or phone number has occurred. If mail is returned due to a wrong address or a student does not respond to an acceptance letter, the student's name will be removed from the entry list.

Program Information:

The program is four semesters; there is no summer school. Students are required to have transportation to off-campus clinical sites. There are 1-2 clinical days per week. They may be day, evening, or night shifts including weekends in eight or twelve-hour configurations. Theory courses meet 1 to 2 days per week. Please refer to the website at www.sac.edu for further information.

Please note that this is considered a full-time program. Students are advised to limit outside employment. Excessive work schedules combined with family and school commitments may contribute to being unsuccessful in the program.

Approximate cost for supplies and fees can be obtained on the website at www.sac.edu.

Please Note: The California Board of Registered Nursing (BRN) requires California Department of Justice and Federal Bureau of Investigation review prior to licensure (upon completion of the program). Section 480 (a) (i) of the Business and Professions Code authorizes the BRN to deny licensure to applicants convicted of crimes substantially related to nursing.

The BRN requires all licensure applicants to provide a valid Social Security number.

The R.N. program has three options:

Option I-Generic R.N., academic program of two years.

Applicants interested in this option must:

- a. Complete the admission prerequisites and
- b. Be admitted into the Santa Ana College R.N. program at the first year of the program or be advance placed.



Option II-L.V.N. to R.N., academic program of one year.

Licensed Vocational Nurses (L.V.N.s) are admitted at the beginning of the second year of the program. To apply for licensure as a Registered Nurse, one must be licensed in California as a Vocational Nurse and:

- Complete the admission prerequisites,
- Be admitted into the Santa Ana College R.N. program in the beginning of the second year of the program (third semester) with college credit granted for 21.1 units of L.V.N. courses,
- Complete the Role Transition course with “Pass” before entering the program, and
- Be placed into the third semester which is dependent upon space availability in the program.

Option III – Thirty (30) Unit Option (BRN regulation 1429), academic program of one year.

Information on the Thirty (30) Unit L.V.N. Option is available in the Health Sciences/Nursing Office. Applicants interested in this option are required to meet with the Program Director or designee regarding this option being a non-degree option and:

- Must be licensed in California as a Vocational Nurse,
- Complete the admission prerequisites required for the 30 Unit L.V.N. Option,
- Be admitted into the Santa Ana College R.N. program in the beginning of the second year of the program (third semester),
- Complete the Role Transition course with “Pass” before entering the program, and
- Be placed into the third semester which is dependent upon space availability in the program.

Major requirements for the Associate Degree in Nursing:

Course	First Year	Units
First Semester		
Nursing-Registered 101, Nursing Process: Non-Critical Adults		4.5
Nursing-Registered 101L, Nursing Actions: Non-Critical Adults		5.0
*Nursing-Registered 103, Pharmacological Concepts for Nursing		3.0
*Nursing-Registered 112, Nursing Concepts		1.5
Second Semester		
Nursing-Registered 102, Nursing Process: Women, Parents and Children		4.0
Nursing-Registered 102L, Nursing Actions: Women, Parents and Children		4.6
Third Semester		
Nursing-Registered 201, Nursing Process: Critical Biological and Psychosocial System Needs I		4.0
Nursing-Registered 201L, Nursing Actions: Critical Biological and Psychosocial System Needs I		5.0
Fourth Semester		
Nursing-Registered 202, Nursing Process: Critical Biological and Psychosocial System Needs II		4.0
Nursing-Registered 202L, Nursing Actions: Critical Biological and Psychosocial System Needs II		5.4
**Nursing-Registered 200, Role Transition		2.0
Total		41

*Nursing-Registered 103 and Nursing-Registered 112 may be taken prior to entering into the first semester of the Nursing Program and are part of the points in the multi-criteria admission process. If not taken prior to first semester, Nursing-Registered 103 and Nursing-Registered 112 are required during first semester as prerequisites to second semester.

**Nursing-Registered 200 is for advance placed students only and must be completed prior to entering the nursing program; not required for generic students.

There are no required electives for the degree. If desired, these courses are recommended: Biology 217; Chemistry 119; Medical Assisting 051A; Nursing Registered 098, 106A, 106B, 106C, 198, 206A, 206B, 206C; Nursing-Continuing Education 145.

The California Board of Registered Nursing stipulates that R.N. students must complete sixteen units of natural, behavioral, and social sciences, as well as six (6) units of communications skills, to qualify for examination and licensure.

Graduation requirements for the Associate Degree in Nursing:

Course	Units
Total nursing units required	41
Biology 239, General Human Anatomy	4
Biology 249, Human Physiology	4
Biology 139, Health Microbiology	4
English 101, Freshman Composition	4
—OR—	
English 101H, Honors Freshman Composition	
Communication Studies 102, Public Speaking (at SAC)	
—OR—	
Communication Studies 145, Group Dynamics (at SAC)	3
—OR—	
Communication 101, Introduction to Interpersonal Communication (at SCC)	
Communication 101, Public Speaking (at SCC)	
Sociology 100, Introduction to Sociology	3
—OR—	
Honors Sociology 100H, Honors Introduction to Sociology	
Psychology 100, Introduction to Psychology	3
—OR—	
Honors Psychology 100H, Honors Introduction to Psychology	
Select one course from the Associate Degree Plan A, Social and Behavioral Science category, American Institutions	3
Select one course from the Associate Degree Plan A, Humanities category	3
Total	72

Only Biology 249 and Biology 139 are required for Option III – 30 Unit Option L.V.N. students.

Math proficiency for graduation: Successful completion of the Santa Ana College Math Proficiency Exam or Intermediate Algebra.

Lifelong learning and cultural breadth requirements are met upon completion of the Nursing Program.

See the Nursing Counselor to determine catalog rights and Santa Ana College graduation requirements which includes mathematics.

Educational Concerns:

Students or concerned parties have the right to contact the Board of Registered Nursing (BRN) or the Accreditation Commission for Education in Nursing (ACEN) regarding concerns about the educational program. It is recommended that this is done after all college means for resolving problems/issues have been exhausted.

BRN P.O. Box 944210 Sacramento, CA 94244-2100 (916) 322-3350 www.rn.ca.gov	ACEN 3343 Peachtree Rd, NE, Suite 850 Atlanta, GA 30326 (404) 975-5000 www.acenursing.org
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NUTRITION AND DIETETICS

Nutrition and Dietetics Degree (sac.nut.aa)

The associate degree curriculum in nutrition and dietetics prepares students to transfer into a curriculum at a four-year institution leading to a baccalaureate degree. Opportunities in the field include positions in management in hospitals, schools, hotels and restaurants; clinical dietetics in acute care hospitals, clinics and convalescent homes; community nutrition at all levels - international, federal, state, and local; research, product development and testing; teaching; and promotion of food in business.

Major requirements for the associate in arts degree:

Course	Units
Nutrition and Food 115, Nutrition —OR—	3
Nutrition and Food 115H, Honors Nutrition	3
Nutrition and Food 116, Principles of Food Preparation	3
Biology 229, General Microbiology	5
Chemistry 219, General Chemistry	5
Psychology 100, Introduction to Psychology —OR—	3
Psychology 100H, Honors Introduction to Psychology	3
Total	19

Culinary Arts Option Certificate (Transcripted) (sac.culn.ca)

The Culinary Arts Option Certificate is designed to prepare students with the knowledge and skills necessary to begin their own culinary arts business, for professional improvement and retraining, or for a wide variety of employment opportunities in the profession.

The program also offers core courses to be utilized as transfer courses for students pursuing a Bachelor's Degree in Home Economics with a foods emphasis. The program offers core courses to be utilized for designation as a (C.C.P.) Certified Catering Professional accredited by Purdue University's (R.H.I.M.I.) Restaurant, Hotel, Institutions Management Institute.

A certificate in catering arts can be earned through completion of the following required courses:

Course	Units
Culinary Arts 062, Basic Techniques of Cooking —OR—	2
Nutrition and Food 062, Basic Techniques of Cooking	3
Nutrition and Food 065, Contemporary Nutrition	3
Nutrition and Food 101, The Food System and Career Opportunities	3
Nutrition and Food 118, Cultural Foods	3
Culinary Arts 066, Baking	3
Culinary Arts 070, Beverage Service	2
Culinary Arts 100, Introduction to Culinary Arts and Hospitality	2
Culinary Arts 110, Food Sanitation and Safety —OR—	3
Nutrition and Food 110, Food Sanitation and Safety —AND—	3
Culinary Arts 135, Gourmet and International Foods	2
Culinary Arts 145, Foods Presentation Pantry/Garde Mange	2
Culinary Arts 200, Business Practices for Culinary Arts Professionals	2
Culinary Arts 299, Cooperative Work Experience Education	1-4
Total	28-31

Hospitality Option Certificate (Transcripted) (sac.nutho.ca)

The Hospitality Option Certificate is designed to prepare students with the knowledge and skills necessary to seek employment in the capacity of restaurant management, hotel/resort management, and special events/meeting planning.

A certificate in Hospitality can be earned through completion of the following required courses:

Core Course	Units
Culinary Arts 070, Beverage Service	2
Culinary Arts 100, Introduction to Culinary Arts and Hospitality	2
Culinary Arts 110, Food Sanitation and Safety —OR—	3
Nutrition and Food 110, Food Sanitation and Safety —AND—	3
Culinary Arts 200, Business Practices for Culinary Arts Professionals	2
Culinary Arts 299, Cooperative Work Experience Education	1-4
Business 080, Business Mathematics	3
Kinesiology Health Education 107, Cardiopulmonary Resuscitation	2
Selected two courses from the following:	6
Fashion Design Merchandising 102, Promotion and Coordination (3)	
Marketing 114, Professional Selling (3)	
Business 170, Principles of Small Business Management (3)	
Total	21-24

OCCUPATIONAL THERAPY ASSISTANT

Occupational Therapy Assistant Degree (sac.ota.as)

The Occupational Therapy Assistant Program provides a strong foundation in the skills and knowledge necessary for entry level occupational therapy assistant competencies. The program is accredited by the Accreditation Council for Occupational Therapy Education, American Occupational Therapy Association, 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD, 20824-1220, phone number (301) 652-2682. Graduates of the program are qualified to sit for the national certification examination, administered by the National Board of Certification for Occupational Therapy (NBCOT), 12 South Summit Avenue, Suite 100, Gaithersburg, MD 20877, phone number (301) 990-7979. Students who have completed all requirements will also need to apply for a license to practice in the State of California through the Board of Occupational Therapy, 2005 Evergreen Street, Suite 2250, Sacramento, CA 95815, phone number (916) 263-2294. Occupational therapy is a discipline which focuses on function as well as quality of life. Occupational therapy assistants provide service to individuals with physical, mental or environmental disabilities, across life phases, who need to remediate skills of everyday tasks of work, self-care, and leisure. The major requires general education courses including biological, social, and behavioral science, in addition to occupational therapy courses. The program utilizes classroom instruction and fieldwork experiences to prepare the student to meet certification and employment standards.

When applying for the certification examination with the National Board of Certification in Occupational Therapy (NBCOT), applicants will be asked to answer questions related to the topic of felonies. Application for state licensure with the Board of Occupational Therapy (BOT) requires fingerprinting. For information about limitations based on felonies applicants are advised to call NBCOT and BOT (address and phone numbers above) anytime prior to the application process. Further, there is a high probability that students will be required to be fingerprinted (at the student's cost) and/or have a drug test and criminal background check at a fieldwork site. Problems with fingerprinting and background could result in a delay or failure of program completion.

These requirements are required prerequisites for Occupational Therapy 101, Foundations of Occupation and Occupational Therapy or 101L, Exploration of Occupation through Activity or Occupational Therapy 100, Medical Terminology and Documentation for Occupational Therapy.



1. Completion of the following tests: (Required of all applicants except those that have a baccalaureate degree.) These tests are for purposes of guidance and for establishment that prerequisite skills of 101 and 101L have been met.
 - a. College Test of English Placement (reading section only) with a minimum score of 25 or above. Students scoring below 25 will be referred to Student Success Center.
 - b. Santa Ana College Test in Math, Level III, showing a total score at 18 or above or completion of Intermediate Algebra 080 or 081 with a grade of "C" or better.
2. English 101 or 101H, with a grade of "C" or better.
3. Oral Communication Skill (3 units) - Satisfactory completion of Communication Studies 101 or 101H, 102, 140, 145, 152, with a grade of "C" or better.
4. Biology 149, Human Anatomy and Physiology (4 units) or equivalent. (This is a prerequisite for Occupational Therapy Assistant 100.)
5. Psychology 100 or 100H with a grade of "C" or better. (This is a prerequisite for Psychology 250.)
6. Evidence of a physical examination and appropriate immunizations must be submitted verifying the applicants physical ability to perform the fieldwork requirement of an Occupational Therapy Assistant (O.T.A.).

Admission Procedures:

Applications to the OTA program will be accepted for a period of 2 months twice per year. The application must include official transcripts showing grades for all prerequisite classes. Completion of 12th grade, verified by transcripts or GED score validated by appropriate testing institution. Students who have an associate's or bachelor's degree from an accredited United States institution do not need to provide high school transcripts or GED scores.

One month before starting classes in the OTA program, students must submit documentation of the following:

- Registration with specified agency for background check
- Current health information
- Current CPR, which must be BLS for Healthcare Providers through the American Heart Association

Major requirements for the associate degree in Occupational Therapy Assistant:

First Year	Units
First Semester	
Occupational Therapy Assistant 100, Terminology and Documentation for the O.T.A.	1
Occupational Therapy Assistant 101, Foundations of Occupation and Occupational Therapy	4
Occupational Therapy Assistant 101L, Exploration of Occupation Through Activity	2
Occupational Therapy Assistant 110, Human Occupation Across Lifespan	3
Second Semester	
Occupational Therapy Assistant 102, Psychosocial Function and Dysfunction	4
Occupational Therapy Assistant 102L, Psychosocial Components of Occupation	2.5
Occupational Therapy Assistant 111, Applied Kinesiology	1
Occupational Therapy Assistant 115, Human Disease and Occupation	2
Psychology 250, Introduction to Abnormal Psychology	3

Second Year	Units
Third Semester	
Occupational Therapy Assistant 103, Physical Function and Dysfunction	4
Occupational Therapy Assistant 103L, Physical Components of Occupation	2.5
Occupational Therapy Assistant 201, Contemporary Models of Occupational Therapy Practice	4
Fourth Semester	
Occupational Therapy Assistant 202, Level II Fieldwork - Part I	6
Occupational Therapy Assistant 203, Level II Fieldwork - Part II	6
Units Required for Major	45

Graduation Requirements for the Associate Degree in Occupational Therapy Assistant.

Course	Units
Total Occupational Therapy Assistant units required	45
Biology 149, Human Anatomy and Physiology	4
Communication Studies 101, Introduction to Interpersonal Communication (3)	
-OR-	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	3
-OR-	
Communication Studies 102, Public Speaking (3)	
-OR-	
Communication Studies 140, Argumentation and Debate (3)	
-OR-	
Communication Studies 145, Group Dynamics (3)	
-OR-	
Communication Studies 152, Oral Interpretation (3)	
English 101, Freshman Composition (4)	4
-OR-	
English 101H, Honors Freshman Composition (4)	
Psychology 100, Introduction to Psychology (3)	3
-OR-	
Psychology 100H, Honors Introduction to Psychology (3)	
U.S. History or Political Science (American Institutions)	3
Humanities	3
Cultural Breadth	3
Communication and Analytical Thinking	3
Mathematics 080, Intermediate Algebra (4)	4
-OR-	
Mathematics 081, Intermediate Algebra (4)	
Above or score on the SAC math placement test indicating placement in a course higher than Mathematics 080/081.	
Total	75

INSTRUCTIONAL PROGRAMS

OCEANOGRAPHY

(See Geology)

OFFICE TECHNOLOGY

(See Business Applications)

PARALEGAL

Paralegal Degree (sac.para.aa)

This American Bar Association (ABA) approved program is designed to prepare students to work as a Paralegal/Legal Assistant as defined by section 6450 of the California Business and Professions Code, who are qualified by education, who either contracts with or is employed by an attorney, law firm, corporation, governmental agency, or other entity, and who performs substantial legal work under the direction and supervision of an active member of the State Bar of California, as defined in Section 6060, or an attorney practicing law in the federal courts of this state, that has been specifically delegated by the attorney to him or her.

This program is not designed to prepare students for the practice of law.



Upon successful completion of the program students will be able to:

1. Make ethical decisions in the workplace
 - a. Students will complete the Paralegal 121 Ethics class.
 - b. Students will incorporate ethical standards in the Law Office Management class through problem solving and discussion board discussions.
2. Understand legal concepts
 - a. Students will demonstrate legal concepts in the legal specialty classes through examination and practical exercises.
 - b. Students will draft law office memorandum and appellate briefs in the Advanced Legal Writing class incorporating analysis of legal concepts.
3. Communicate effectively orally and in writing
 - a. Students will draft law office memorandum.
 - b. Students will use proper grammar, punctuation, and spelling.
 - c. Students will create client correspondence.
4. Be proficient in using legal technology
 - a. Students will demonstrate the use of the Microsoft suite (Word, PowerPoint and Excel) in their completion of assignments.
 - b. Students will complete assignments using legal specific software.
5. Exhibit critical thinking skills
 - a. Students will analyze cases related to the legal specialty classes.
 - b. Students will analyze fact patterns to demonstrate the application of legal concepts to fact patterns.

Note: Students must complete the program within five years or repeat any legal specialty courses which were completed more than five years prior to graduation. Legal specialty courses subject to this requirement are marked with an asterisk. It is further recommended that students complete as much of their general education as possible prior to enrolling in legal specialty courses.

All courses must be passed with a C or better with the exception of Paralegal 297, which is pass/no pass.

Paralegal Degree (sac.para.aa)

Specific General Education Requirements for Degree:

The ABA additionally specifies that a student must complete a minimum of 18 semester units of ABA approved general education courses in the areas of language and composition, mathematics, social science and behavioral sciences, natural sciences, humanities and the arts. This excludes courses in physical education, counseling, performing arts, accounting, computer science, technical writing, business mathematics, keyboarding and business law. Students are urged to seek counseling prior to enrollment to insure that college general education choices satisfy this requirement.

Major requirements for students seeking the degree:

Note: Students must complete the program within 5 years or repeat any legal specialty courses which were completed more than 5 years prior to graduation. Legal specialty courses subject to this requirement are marked with an asterisk(*).

Students must take Paralegal 100 prior to or concurrently with other legal specialty courses except Paralegal 120 and Paralegal 107.

Required Core Courses for all Students:

Course	Units
Paralegal 100, The Paralegal Profession	3
*Paralegal 101, Law Office Management	2
*Paralegal 120, Computers in the Law Office	4
*Paralegal 121, Ethics and Professional Responsibility	2
*Paralegal 145, Civil Litigation Overview	4
*Paralegal 146, Tort Law and Alternative Dispute Resolution	4
*Paralegal 150, Legal Transactions	5
Paralegal 246, Legal Research and Analysis	4
Paralegal 248, Advanced Research and Writing	3
*Paralegal 297, The Professional Paralegal	2
Business 105, Legal Environment of Business	3

Effective Fall 2011: Paralegal 145 replaces 143 and 144

Effective Fall 2013 Paralegal 150 combines and replaces Paralegal 130, 136 and 138. Paralegal 146 combines and replaces Paralegal 131 and 137.

Students must choose a minimum of 3 units from the legal elective courses:

Legal Electives	Units
*Paralegal 105, Cooperative Work Experience Education - Occupational (1 - 4)	
Paralegal 107, Principles and Procedures in the Criminal Justice System (3)	
*Paralegal 122, Elder Law (2)	
*Paralegal 132, Family Law and Procedure (2)	
*Paralegal 133, Workers' Compensation Law and Procedure (2)	
*Paralegal 134, Probate Law and Procedure (2)	
*Paralegal 135, Bankruptcy Law and Procedure (2)	
*Paralegal 138, Law of Business Organizations (2)	
*Paralegal 139, Fundamentals of Labor Law (2)	
*Paralegal 140, Immigration Law and Procedure (2)	
*Paralegal 147, International Commercial Agreements and Distribution Law (1)	
*Paralegal 148, International Intellectual Property Law (1)	
*Paralegal 149, The Law of Global Commerce (1)	
*Paralegal 299, Cooperative Work Experience Education (1-4)	
Total	39

Note: Students must complete the program within 5 years or repeat any legal specialty courses which were completed more than 5 years prior to graduation. Legal specialty courses subject to this are marked with an asterisk (*).

Paralegal Certificate (Transcribed) (sac.para.ca)

This American Bar Association (ABA) approved program is designed to prepare students to work as a Paralegal/Legal Assistant as defined by section 6450 of the California Business and Professions Code, who are qualified by education, who either contracts with or is employed by an attorney, law firm, corporation, governmental agency, or other entity, and who performs substantial legal work under the direction and supervision of an active member of the State Bar of California, as defined in Section 6060, or an attorney practicing law in the federal courts of this state that has been specifically delegated by the attorney to him or her.

This program is not designed to prepare students for the practice of law.

Upon successful completion of the program students will be able to:

1. Make ethical decisions in the workplace
 - a. Students will complete the Paralegal 121 Ethics class.
 - b. Students will incorporate ethical standards in the Law Office Management class through problem solving and discussion board discussions.



2. Understand legal concepts
 - a. Students will demonstrate legal concepts in the legal specialty classes through examination and practical exercises.
 - b. Students will draft law office memorandum and appellate briefs in the Advanced Legal Writing class incorporating analysis of legal concepts.
3. Communicate effectively orally and in writing
 - a. Students will draft law office memorandum.
 - b. Students will use proper grammar, punctuation, and spelling.
 - c. Students will create client correspondence.
4. Be proficient in using legal technology
 - a. Students will demonstrate the use of the Microsoft suite (Word, PowerPoint and Excel) in their completion of assignments.
 - b. Students will complete assignments using legal specific software.
5. Exhibit critical thinking skills
 - a. Students will analyze cases related to the legal specialty classes.
 - b. Students will analyze fact patterns to demonstrate the application of legal concepts to fact patterns.

Note: Students must complete the program within 5 years or repeat any legal specialty courses which were completed more than 5 years prior to graduation. Legal specialty courses subject to this requirement are marked with an asterisk. It is further recommended that students complete as much of their general education as possible prior to enrolling in legal specialty courses.

All courses must be passed with a C grade or better with the exception of Paralegal 297, which is a pass/no pass.

Paralegal Certificate (sac.para.ca)

A Paralegal Certificate is available only to students who have received an Associate in Arts or Science Degree or Bachelor of Arts or Science Degree from an accredited college or university. The student must meet the eighteen semester units of ABA approved courses in the areas of language and composition, mathematics, social science and behavioral sciences, natural sciences, humanities and the arts.

Major requirements for students seeking the certificate:

Note: Students must complete the program within five years or repeat any legal specialty courses which were completed more than five years prior to graduation. Legal specialty courses subject to these requirements are marked with an asterisk (*).

Core Courses for all Students:

Course	Units
Paralegal 100, The Paralegal Profession	3
*Paralegal 101, Law Office Management	2
*Paralegal 120, Computers in the Law Office	4
*Paralegal 121, Ethics and Professional Responsibility	2
*Paralegal 145, Civil Litigation Overview	4
*Paralegal 146, Tort Law and Alternative Dispute Resolution	4
*Paralegal 150, Legal Transactions	5
Paralegal 246, Legal Research and Analysis	4
Paralegal 248, Advanced Research and Writing	3
*Paralegal 297, The Professional Paralegal	2
Business 105, Legal Environment of Business	3

Effective fall 2011: Paralegal 145 replaces 143 and 144

Effective fall 2013: Paralegal 150 combines and replaces Paralegal 130, 136 and 138. Paralegal 146 combines and replaces Paralegal 131 and 137.

Students must choose a minimum of 3 units from the legal elective courses:

Legal Electives	Units
*Paralegal 105, Cooperative Work Experience Education - Occupational (1 - 4)	
Paralegal 107, Principles and Procedures in the Criminal Justice System (3)	
*Paralegal 122, Elder Law (2)	
*Paralegal 132, Family Law and Procedure (2)	
*Paralegal 133, Workers' Compensation Law and Procedure (2)	
*Paralegal 134, Probate Law and Procedure (2)	
*Paralegal 135, Bankruptcy Law and Procedure (2)	
*Paralegal 139, Fundamentals of Labor Law (2)	
*Paralegal 140, Immigration Law and Procedure (2)	
*Paralegal 147, International Commercial Agreements and Distribution Law (1)	
*Paralegal 148, International Intellectual Property Law (1)	
*Paralegal 149, The Law of Global Commerce (1)	
*Paralegal 299, Cooperative Work Experience Education (1-4)	
Total	39

Note: Students must complete the program within 5 years or repeat any legal specialty courses which were completed more than 5 years prior to graduation. Legal specialty courses subject to this are marked with an asterisk (*).

PHARMACY TECHNOLOGY

The Pharmacy Technology program is designed to prepare students for employment as pharmacy technicians. Pharmacy technicians assist pharmacists by performing the technical tasks related to the packaging and distribution of medication, including prescriptions. Careers for pharmacy technicians are available in drug stores, hospitals, compounding pharmacies, and managed care organizations. Pharmacy technicians also work in other specialized pharmacy practice sites, providing medications for patients in clinics, hospice, and long-term care facilities and for patients requiring home healthcare or home infusion services.

The Program coursework is based on the national "Model Curriculum for Pharmacy Technician Training" established by a consortium of professional organizations under the leadership of the American Society of Health-System Pharmacists (ASHP), 7272 Wisconsin Avenue, Bethesda, MD, 20814; phone (301) 657-3000. Following the ASHP model, the curriculum is sequenced to provide a foundation level of lecture courses, an application level of lab courses, and an experiential level of externships.

Although there are no specific entry prerequisites for the Pharmacy Technology program, students should have a good command of the English language, good basic math skills, and good verbal communication ability. Manual dexterity, hearing, and visual perception must be adequate to perform the technical tasks in the lab courses and externship. Prospective students are encouraged to attend a Pharmacy Technology program orientation meeting for a more complete overview of the requirements and recommendations. Information on dates and times for the orientation meetings can be obtained by calling the Division of Human Services and technology at 1-714-564-6800.

The Pharmacy Technology program offers three training options for pharmacy technicians: the Basic Certificate, the Advanced Certificate, and the associate degree. All three training options conform to the requirements specified in section 1793.6 of Title 16 of the California Code of Regulations.

Students who complete only the Basic Certificate option are qualified primarily for jobs in drug stores or other outpatient pharmacy sites. By finishing the additional major courses required for the associate degree or the Advanced Certificate option, students are fully prepared for employment in any pharmacy practice setting. Students are strongly



encouraged to complete the Basic Certificate option first and then continue through the remaining courses required for the Advanced Certificate or associate degree. Although the Pharmacy Technology training program is not part of the pre-pharmacy curriculum, students who plan to attend pharmacy school may enhance their chance of acceptance by completing the Advanced Certificate option.

Prior to obtaining employment, pharmacy technicians must be licensed by the California State Board of Pharmacy, 1625 North Market Blvd, Suite N219, Sacramento, CA 95834; phone 916-574-7937. Upon completion of any of the three training options, students are eligible to apply for a state Pharmacy Technician license under Qualifying Method A. Documentation will be provided by the program director using the "Affidavit of Completion of Coursework or Graduation" portion of the license application. Note that applicants must submit fingerprints for a Department of Justice background check, to be done at the applicant's expense. Applicants must also possess a high school diploma or GED and a valid social security number. License applications and complete information on the qualifications may be downloaded from the Board of Pharmacy's web site at www.pharmacy.ca.gov.

The California State Board of Pharmacy does not administer a board exam for pharmacy technicians. To become a certified pharmacy technician (CPhT), students must pass the national exam administered by the Pharmacy Technician Certification Board (PTCB), 1100 15th Street, NW, Suite 730, Washington, DC, 20005-1707; phone 800-363-8012. Information on the certification process can be obtained at www.ptcb.org. Note that the PTCB also requires applicants to have a high school diploma or GED.

Applicants for licensing and certification will be asked to answer questions related to misdemeanor and felony convictions, illegal drug use, and health issues that might impair their ability to practice safely. In its duty to protect the public, the Board of Pharmacy will refuse to issue a pharmacy technician license to anyone deemed unfit to practice. Individuals with criminal backgrounds may also be prohibited from taking the national certification exam.

Pharmacy Technology Degree (sac.phar.as)

In addition to the general education requirement, the associate degree includes the full-spectrum training required for employment in all pharmacy practice settings. Upon completion of the associate degree, graduates will meet the academic training requirements for licensing with the California State Board of Pharmacy. Graduates will also be well prepared for the Pharmacy Technician Certification Board exam.

The major course requirements for the associate degree consists of the same 16.5 units of coursework listed in the Basic Certificate option, including the one unit outpatient externship rotation. In addition to completing two additional academic courses (PHAR 057 and PHAR 060), students choosing the associate degree must perform 240 additional hours (three additional units) of externship, involving rotations in inpatient and sterile products pharmacy services. Students will be placed in the hospital and/or home infusion setting to complete these rotations. Background checks, health screenings, and/or drug testing may be required prior to externship placement. Any required investigations are done at the student's expense. In addition, completion of a Communication Studies class (Communication Studies 097, or 101, or 101H, or 102) is a pre-requisite for externship.

The associate degree is accredited by the American Society of Health-System Pharmacists (ASHP). Students must complete each required course with a grade of "C" or better (0.5 unit of Pharmacy Technology 060L or other L-series lab classes and externship with a grade of "P") to qualify for the degree option.

Major requirements for the associate degree and the Advanced Certificate:

Required Course	Units
Pharmacy Technology 048, Introduction to Pharmacy Technology	2
Pharmacy Technology 051, Body Systems I	3.5
Pharmacy Technology 052, Body Systems II	3.5
Pharmacy Technology 054, Pharmacy Calculations	2
Pharmacy Technology 056, Pharmacy Operations	4.5
Pharmacy Technology 057, Inpatient Pharmacy Services	1.75
Pharmacy Technology 060, Sterile Products	4.5
Pharmacy Technology 060L, Pharmacy Technology Skills Lab	0.5
Pharmacy Technology 072, Pharmacy Technology Externship	4

Recommended electives:

Business Applications 110, Computer Keyboarding Skills 1 - 2	
Business Applications 115, Computer Keyboarding Speed and Accuracy Development (1-2)	
Biology 139, Health Microbiology (4)	
Biology 149, Human Anatomy and Physiology (4)	
Chemistry 109, Chemistry in the Community (4)	
Chemistry 119, Fundamentals - General and Organic (5)	
Computer Science 100, The Computer and Society (3)	
Pharmacy Technology 064, New Drug Update (1)	
Pharmacy Technology 080, Pharmacy Calculations Review (2)	
Pharmacy Technology 084, Sterile Products Update (4.5)	
Communication Studies 097, American English Conversational Skills (3)	
Communication Studies 101, Introduction to Interpersonal Communication (3)	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	
Communication Studies 102, Public Speaking (3)	
Communication Studies 107, Communication for the Health Care Professional (1.5)	

Total 26.25

Pharmacy Technology Advanced Certificate (Transcripted) (sac.phara.ca)

The Pharmacy Technology Advanced Certificate Option includes the full-spectrum training required for employment in all pharmacy practice settings. Upon completion of the Advanced Certificate, graduates will meet the academic training requirements for licensing with the California State Board of Pharmacy. Graduates will also be well prepared for the Pharmacy Technician Certification Board exam. The major course requirements for the Advanced Certificate consists of the same 16.5 units of coursework listed in the Basic Certificate option, including the one unit outpatient externship rotation. In addition to completing two additional academic courses (PHAR 057 and PHAR 060), students choosing the Advanced Certificate option must perform 240 additional hours (three additional units) of externship, involving rotations in inpatient and sterile products pharmacy services. Students will be placed in the hospital and/or home infusion setting to complete these rotations. Background checks, health screenings, and/or drug testing may be required prior to externship placement. Any required investigations are done at the student's expense. In addition, completion of a Communication Studies class (Communication Studies 097, or 101, or 101H, or 102) is a pre-requisite for externship.

The Advanced Certificate option is accredited by the American Society of Health-System Pharmacists (ASHP). Students must complete each required course with a grade of "C" or better (0.5 unit of PHAR 060L or other L-series lab classes and externship with a grade of "P") to qualify for the the Advanced Certificate.



Required Course	Units
Pharmacy Technology 048, Introduction to Pharmacy Technology	2
Pharmacy Technology 051, Body Systems I	3.5
Pharmacy Technology 052, Body Systems II	3.5
Pharmacy Technology 054, Pharmacy Calculations	2
Pharmacy Technology 056, Pharmacy Operations	4.5
Pharmacy Technology 057, Inpatient Pharmacy Services	1.75
Pharmacy Technology 060, Sterile Products	4.5
Pharmacy Technology 060L, Pharmacy Technology Skills Lab	0.5
Pharmacy Technology 072, Pharmacy Technology Externship	4

Recommended electives:

Biology 139, Health Microbiology (4)	
Biology 149, Human Anatomy and Physiology (4)	
Business Applications 110B, Computer Keyboarding Skills II (1)	
Business Applications 115A, Computer Keyboarding Speed and Accuracy Development I (1)	
Chemistry 109, Chemistry in the Community (4)	
Chemistry 119, Fundamentals - General and Organic (5)	
Computer Science 100, The Computer and Society (3)	
Pharmacy Technology 064, New Drug Update (1)	
Pharmacy Technology 080, Pharmacy Calculations Review (2)	
Pharmacy Technology 084, Sterile Products Update (4.5)	
Communication Studies 097, American English Conversational Skills (3)	
Communication Studies 101, Introduction to Interpersonal Communication (3)	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	
Communication Studies 102, Public Speaking (3)	
Communication Studies 107, Communication for the Health Care Professional (1.5)	
Total	26.25

Pharmacy Technology Basic Certificate (Untranscripted) (sac.pharb.cert)

The Basic Certificate option prepares students for entry-level employment as a pharmacy technician in the retail pharmacy sector. By completing the Basic Certificate option, students will meet the minimum academic training requirements for licensing as specified by the California State Board of Pharmacy.

Students who intend to complete only the Basic Certificate option will be placed for a minimum of 80 hours of externship in an outpatient (drug store or ambulatory care clinic) pharmacy site to gain workplace experience. Background checks, health screenings, and/or drug testing may be required prior to externship placement. Any required investigations are done at the student's expense. In addition, completion of a Communication Studies class (Communication Studies 097, or 101, or 101H, or 102) is a pre-requisite for externship.

The Basic Certificate option is not accredited by the American Society of Health-Systems Pharmacists (ASHP). Students who earn the Basic Certificate and then continue through the Advanced Certificate will be designated as having completed an ASHP-accredited program.

Students must complete each required course with a grade of "C" or better (Externship with a grade of "P") to qualify for the Basic Certificate.

All courses are required to be completed within a 3-year period to be eligible for Pharmacy Technology program enrollment.

Major requirements for the Basic Certificate option:

Required Course	Units
Pharmacy Technology 048, Introduction to Pharmacy Technology	2
Pharmacy Technology 051, Body Systems I	3.5
Pharmacy Technology 052, Body Systems II	3.5
Pharmacy Technology 054, Pharmacy Calculations	2
Pharmacy Technology 056, Pharmacy Operations	4.5
Pharmacy Technology 072, Pharmacy Technology Externship	1

Recommended electives:

Biology 139, Health Microbiology (4)	
Business Applications 038, Telephone Techniques (0.5)	
Business Applications 110, Computer Keyboarding Skills (1-2)	
Business Applications 115, Computer Keyboarding Speed and Accuracy Development (1-2)	
Chemistry 109, Chemistry in the Community (4)	
Chemistry 119, Fundamentals - General and Organic (5)	
Computer Science 100, The Computer and Society (3)	
Pharmacy Technology 061, Pharmacy Technology Skills Lab (0.5)	
Pharmacy Technology 064, New Drug Update (1)	
—AND—	
Pharmacy Technology 080, Pharmacy Calculations Review (2)	
Communication Studies 101, Introduction to Interpersonal Communication (3)	
—OR—	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	
—OR—	
Communication Studies 102, Public Speaking (3)	
—OR—	
Communication Studies 107, Communication for the Health Care Professional (1.5)	
Total	16.5

PHILOSOPHY

Philosophy Degree (sac.phil.aa)

The associate degree curriculum in philosophy prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. The baccalaureate degree is intended for those students who plan to teach philosophy, or for pre-professional students in such areas as theology and law, and as a foundation for graduate studies in the areas of library science, diplomacy, theoretical physical science, and specialized historical studies.

Major requirements for the associate in arts degree:

Course	Units
Philosophy 106, Introduction to Philosophy	3
—OR—	
Philosophy 106H, Honors Introduction to Philosophy	
Philosophy 108, Ethics	3
Philosophy 110, Critical Thinking	
—OR—	
Philosophy 110H, Honors Critical Thinking	4
—OR—	
Philosophy 111, Introductory Logic	
Philosophy 112, World Religions	3
Philosophy 118, History of Philosophy	3
Electives	6
Total	22

A minimum of six elective units to be selected from the following: Art 101, 102; English 233ABCD, 271, 272; History 101 or 101H, 102 or 102H, 160; Interdisciplinary Studies 121; Music 101 or 101H; Psychology 100 or 100H; Theatre Arts 233ABCD.



PHOTOGRAPHY

Photography Degree (sac.phot.aa)

The associate in arts degree in photography provides a foundation in basic photography processes combined with a high level of creative opportunity and individual expression. Enrollment in this program prepares transfer students to enter advanced degree programs at four-year institutions as well as to enter the field of photography in positions such as studio photographer, fashion photographer, museum/gallery photographer, photo journalist, and free lance photographer. Please consult a SAC Counselor for information about course requirements for particular four-year institutions.

Major requirements for the associate in arts degree:

Course	Units
Art 101, Survey of Western Art History (3)	
Art 102, Western Art History (3)	3
Photography 150, History of Photography (3)	
Art 110, Two-Dimensional Design	3
Photography 180, Beginning Photography	3
Photography 181A, The Zone System	3
Photography 182A, Alternative Processes (3)	
Photography 183A, Photo Graphics (3)	3
Photography 185A, Landscape Photography	3
Photography 190, Introduction to Digital Photography	3
Photography 191, Intermediate Digital Photography	3
Photography 192, Portrait Photography	3
Photography 196, Introduction to Commercial Photography	3
Photography 200, The View Camera	3
Photography 291, Wedding and Quinceanera Photography	3
Electives	1-3
Total	37-39

Electives must be chosen from the following courses: Art 162, 195; Photography 009, 181B, 182B, 183B, 185B, 194, 197, 198, 293, 294.

Commercial Photography Certificate (sac.phot.ca)

The digital photography certificate program is an intensive course of study focused on providing the student with a broad base of technical skills with additional emphasis on visual communication. Career positions include production printer, studio photographer, and free lance photographer.

Major requirements for the certificate:

Course	Units
Photography 009, Photography Lab	1
Photography 180, Beginning Photography	3
Photography 191, Commercial Studio Practices	3
Photography 194, Digital Workflow	3
Photography 196, Commercial Photography	3
Photography 291, Wedding and Quinceanera Photography	3
Electives must be chosen from the following courses:	Units
Art 124, Gallery Production (2)	
Art 129, Graphic Design Concepts for the Web (3)	
Art 162, Digital Design with Photoshop-I (3)	6
Business 170, Principles of Small Business Management (3)	
Photography 150, History of Photography (3)	
Photography 292, Portrait Photography (3)	
Total	22

PHYSICS

Physics Degree (sac.phys.as)

The associate degree curriculum in physics prepares students to move into a curriculum at a four-year institution leading to a baccalaureate, and then into careers in applied physics, research and development, and/or as assistant research scientists.

Major requirements for the associate in arts or science degree:

Course	Units
Physics 217, Engineering Physics I	4
Physics 227, Engineering Physics II	4
Physics 237, Engineering Physics III	4
Mathematics 180, Analytical Geometry and Calculus I	4
Mathematics 185, Analytical Geometry and Calculus II	4
Mathematics 280, Intermediate Calculus	4
Total	24

Chemistry courses may be required for upper division standing (check with a counselor and the Transfer Center).

PLANT BIOLOGY

(See *Biological Science Degree* for major requirements and counseling for transfer requirements.)

POLITICAL SCIENCE

Option 1

Political Science Degree (sac.polt.aa)

The associate degree curriculum in political science prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. The baccalaureate degree prepares students for law school, teaching, public relations, journalism, government service on the local, state and national levels, and private employment where government institutions are involved.

Required Courses:	Units
Political Science 101, Introduction to Government	
Political Science 101H, Honors Introduction to Government	3
9 units from 3 courses below:	9
Political Science 201, Introduction to Comparative Politics (3)	
Political Science 220, International Politics (3)	
Political Science 235, Identity Politics (3)	
Political Science 200, American Political Thought (3)	
Political Science 200H, Honors American Political Thought (3)	
4 units from courses below:	4
English 101, Freshman Composition	
English 101H, Honors Freshman Composition (4)	4
Elective 9 units. Select electives from the following list.	9
Anthropology 100, Introduction to Cultural Anthropology (3)	
Anthropology 100H, Honors Introduction to Cultural Anthropology (3)	
Computer Science 100, The Computer and Society (3)	
Economics 120, Principles/Macro (3)	
Foreign Language 101	
Foreign Language 102	
Honors Foreign Language 102	
Foreign Language 202	
Foreign Language 202H	
History 101, World Civilizations to the 16th Century (3)	
History 101H, Honors World Civilizations to the 16th Century (3)	



History 120, The United States to 1865 (3)	
—OR—	
History 120H, Honors The United States to 1865 (3)	
History 150, Latin American Civilization to Independence (3)	
History 151, Modern Latin American Civilization (3)	
History 153, History of Mexico (3)	
Interdisciplinary Studies 117H, Honors Introduction to Global Studies (3)	
Philosophy 106, Introduction to Philosophy (3)	
—OR—	
Philosophy 106H, Honors Introduction to Philosophy (3)	
Psychology 100, Introduction to Psychology (3)	
—OR—	
Psychology 100H, Honors Introduction to Psychology (3)	
Sociology 100, Introduction to Sociology (3)	
—OR—	
Sociology 100H, Honors Introduction to Sociology (3)	
Communication Studies 140, Argumentation and Debate (3)	
Total	25

Option 2
Associate in Arts in Political Science for Transfer
(sac.polt.aat)

The Associate in Arts in Political Science for Transfer (A.A.-T) prepares students to transfer into the CSU system. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Political Science major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Political Science students will have an understanding of both the breadth and depth of the political science discipline. This knowledge will be grounded in the comprehension of political science principles, concepts, ideas, theories, research, and terminology. Students will also have the capacity to write and think in a critical and analytical way about issues pertaining to politics, government, and society.

Required Courses:	Units
Political Science 101, Introduction to Government	
—OR—	
Political Science 101H, Honors Introduction to Government	3
List A – Select 3 courses:	9-10
Political Science 200, American Political Thought (3)	
—OR—	
Political Science 200H, Honors American Political Thought (3)	
Political Science 201, Introduction to Comparative Politics (3)	
Political Science 220, International Politics (3)	
Mathematics 219, Statistics and Probability (4)	
—OR—	
Mathematics 219H, Honors Statistics and Probability (4)	
—OR—	
Social Science 219, Statistics and Probability (4)	
—OR—	
Social Science 219H, Honors Statistics and Probability (4)	
List B – Select 2 courses:	6-7
(Choose from any course not selected above and/or a below course.)	
Political Science 235, Identity Politics (3)	
Economics 120, Principles of Macro Economics (3)	
Economics 121, Principles of Micro Economics (3)	
Total	18-20

PSYCHOLOGY

Option 1
Psychology Degree (sac.psyc.aa)

The associate degree in psychology prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree for specialization in any of more than twenty branches of psychology including child, clinical, personal, vocational and marriage counseling, industrial, mental health, and college teaching. Completion of the two-year program is appropriate for students whose career plans include helping people, e.g., teaching, social welfare, probation, criminology, nursing, law, or personnel work. Consult a counselor for information about course requirements for specific universities.

Major requirements for the associate in arts degree:

Course	Units
Psychology 100, Introduction to Psychology	
—OR—	
Psychology 100H, Honors Introduction to Psychology	3
Psychology 210, Statistics for the Behavioral Sciences	
—OR—	
Mathematics 219, Statistics and Probability	
—OR—	
Mathematics 219H, Honors Statistics and Probability	4
—OR—	
Sociology 219, Statistics and Probability	
—OR—	
Sociology 219H, Honors Statistics and Probability	
Psychology 219, Introduction to Research Methods in Psychology	3

Two courses from the following psychology electives: 6

- Psychology 140, Introduction to Psychology of Adulthood and Aging (3)
- Psychology 157, Introduction to Child Psychology (3)
- Psychology 170, Multicultural Psychology (3)
- Psychology 200, Introduction to Biological Psychology (3)
- Psychology 230, Psychology and Effective Behavior (3)
- Psychology 240, Introduction to Social Psychology (3)
- Psychology 250, Introduction to Abnormal Psychology (3)

One additional elective from the psychology courses above or from the following: 3-5

- Anthropology 100, Introduction to Cultural Anthropology (3)
| —OR— | |
- Anthropology 100H, Honors Introduction to Cultural Anthropology (3)
- Anthropology 101, Introduction to Physical Anthropology (3)
- Biology 109, Fundamentals of Biology (3)
| —OR— | |
- Biology 109H, Honors Fundamentals of Biology (3)
- Biology 149, Human Anatomy and Physiology (4)
- Chemistry 109, Chemistry in the Community (4)
- Chemistry 119, Fundamentals – General and Organic (4)
- Computer Science 100, The Computer and Society (5)
- Interdisciplinary Studies 155, Human Sexuality (3)
- Kinesiology Professional 125, Sport Psychology (3)
| —OR— | |
- Philosophy 110, Critical Thinking (4)
| —OR— | |
- Philosophy 110H, Honors Critical Thinking (4)
- Philosophy 111, Introductory Logic (4)
- Sociology 100, Introduction to Sociology (3)
| —OR— | |
- Sociology 100H, Honors Introduction to Sociology (3)

Total 12-16

Courses recommended for upper division standing (check with a counselor and the transfer school to verify current courses).



Option 2 Associate in Arts in Psychology for Transfer (sac.psyc.aat)

The Associate in Arts in Psychology for Transfer (A.A.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in psychology. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Psychology major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Psychology students will have a general understanding of main psychological theories as they pertain to development, personality, psychological disorders, learning, memory, and social dynamics as well as an understanding of the physiological basis of human behavior. This knowledge base will be grounded in the understanding of basic research methodology. Additionally, students will have the capacity to write and think in a critically analytical way about issues pertaining to human behavior and mental processes.

Course	Units
Core Courses (10 Units)	
Mathematics 219, Statistics and Probability —OR—	4
Mathematics 219H, Honors Statistics and Probability —OR—	
Sociology 219, Statistics and Probability —OR—	3
Sociology 219H, Honors Statistics and Probability —OR—	
Psychology 100, Introduction to Psychology —OR—	3
Psychology 100H, Honors Introduction to Psychology —OR—	
Psychology 219, Introduction to Research Methods in Psychology	3
List A – select one course (3 units) 3	
Biology 109, Fundamentals of Biology (3) —OR—	3
Biology 109H, Honors Fundamentals of Biology (3) —OR—	
Psychology 200, Introduction to Biological Psychology (3)	
List B – select one course (3-4 units) 3-4	
Any list A course not used above	
English 101, Freshman Composition (4) —OR—	3-4
English 101H, Honors Freshman Composition (4)	
List C – select one course (3-5 units) 3-5	
Any course not selected above	
Anthropology 100, Introduction to Cultural Anthropology (3) —OR—	3-5
Anthropology 100H, Honors Introduction to Cultural Anthropology (3)	
Anthropology 101, Introduction to Physical Anthropology (3)	
Anthropology 104, Language and Culture (3) —OR—	3-5
Anthropology 104H, Honors Language and Culture (3)	
Biology 177, Human Genetics (3)	
Biology 211, Cellular and Molecular Biology (5)	
Biology 239, General Human Anatomy (4)	
Chemistry 119, Fundamentals - General and Organic (5)	
Chemistry 209, Introductory Chemistry (4) —OR—	3-5
Chemistry 219, General Chemistry (5)	
Chemistry 219H, Honors General Chemistry (5)	
English 102, Literature and Composition (4)	
English 103, Critical Thinking and Writing (4) —OR—	3-5
English 103H, Honors Critical Thinking and Writing (4)	

English 104, Language and Culture (3) —OR—	3
English 104H, Honors Language and Culture (3)	
Human Development 107, Child Growth and Development (DS1) (3)	
Mathematics 105, Mathematics for Liberal Arts Students (3)	
Mathematics 140, College Algebra (4)	
Mathematics 145, Finite Mathematics (4)	
Mathematics 150, Calculus for Biological, Management and Social Sciences (4)	
Mathematics 160, Trigonometry (4)	
Mathematics 170, Pre-Calculus Mathematics (4)	
Mathematics 180, Analytic Geometry and Calculus I (4) —OR—	4
Mathematics 180H, Honors Analytic Geometry and Calculus (4)	
Physical Science 115, Concepts in Physical Sciences for Educators (4)	
Physics 109, Survey of General Physics (4)	
Physics 210, Principles of Physics I (4)	
Physics 217, Engineering Physics I (4)	
Physics 279, College Physics I (4)	
Psychology 140, Introduction to Psychology of Adulthood and Aging (3)	
Psychology 157, Introduction to Child Psychology (3)	
Psychology 170, Multicultural Psychology (3)	
Psychology 230, Psychology and Effective Behavior (3)	
Psychology 240, Introduction to Social Psychology (3)	
Psychology 250, Introduction to Abnormal Psychology (3)	
Sociology 100, Introduction to Sociology (3) —OR—	3
Sociology 100H, Honors Introduction to Sociology (3)	
Sociology 140, Analysis of Social Trends and Problems (3) —OR—	3
Sociology 140H, Honors Analysis of Social Trends and Problems (3)	
Sociology 240, Introduction to Social Psychology (3)	
Total Units for the Major	19-22

Changes to this degree are pending approval from the Community College Chancellor's Office. Please consult a counselor for additional information.

SCIENCE

Science Degree (sac.sci.as)

The associate degree in science is designed to provide students with a foundation in science that will allow transfer to a four-year college or university to complete a baccalaureate science degree in disciplines such as astronomy, biology, biochemistry, chemistry, geology, geophysics, meteorology, oceanography, or physics.

For transfer with upper division standing, most four-year institutions require a minimum of one-year of calculus and one-year of general chemistry in addition to the courses required in the science major. Check with the Santiago Canyon College/Santa Ana College Transfer Center or counselor for specific transfer requirements.

Units used to satisfy the Santiago Canyon College/Santa Ana College general education requirements may also be used to satisfy the Science Degree requirements.

Requirements for the associate in science degree:

Core Courses	Units
Mathematics 180, Analytic Geometry and Calculus I —OR—	4
Mathematics 180H, Honors Analytic Geometry and Calculus	
Chemistry 219, General Chemistry —OR—	5
Chemistry 219H, Honors General Chemistry	
Total	9



General Science Emphasis:

Course	Units
Science Core Required Courses	9
Mathematics 185, Analytic Geometry and Calculus II	4
Electives ^A	13
Total	26

^A Electives for any emphasis of the Science Degree must be selected from the following courses:

Any course numbered 100 or higher in Astronomy, Biology, Chemistry, Earth Science, Environmental Studies, Geology, Physical Science, or Physics and Mathematics 185, 280.

Astronomy Emphasis:

Course	Units
Science Core Required Courses ^B	9
Astronomy 109, Introduction to the Solar System	3
Astronomy 110, Introduction to Stars and Galaxies —OR—	3
Astronomy 110H, Honors Introduction to Stars and Galaxies	
Astronomy 140, Astronomy Laboratory	1
Mathematics 185, Analytic Geometry and Calculus II	4
Electives ^{A,C}	6
Total	26

^A Electives for any emphasis of the Science Degree must be selected from the following courses:

Any course numbered 100 or higher in Astronomy, Biology, Chemistry, Earth Science, Environmental Studies, Geology, Physical Science, or Physics and Mathematics 185, 280.

^B Astronomy Emphasis Students may substitute Physics 217 for Chemistry 219.

^C Completion of Physics 217/227/237 and/or Mathematics 280 highly recommended.

Biology Emphasis:

Course	Units
Science Core Required Courses ^D	9
Biology 211, Cellular and Molecular Biology	5
Biology 212, Animal Diversity and Ecology —OR—	5
Biology 214, Plant Diversity and Evolution	
Electives ^{A,E}	8
Total	27

^A Electives for any emphasis of the Science Degree must be selected from the following courses:

Any course numbered 100 or higher in Astronomy, Biology, Chemistry, Earth Science, Environmental Studies, Geology, Physical Science, or Physics and Mathematics 185, 280.

^D Biology Emphasis Students may substitute Mathematics 150 for Mathematics 180/180H.

^E Chemistry 229 and Biology 211 and 212 or 214 highly recommended for Biology Emphasis Students.

Chemistry Emphasis:

Course	Units
Science Core Required Courses	9
Chemistry 229, General Chemistry and Qualitative Analysis	5
Mathematics 185, Analytic Geometry and Calculus II	4
Electives ^{A,F}	8
Total	26

^A Electives for any emphasis of the Science Degree must be selected from the following courses:

Any course numbered 100 or higher in Astronomy, Biology, Chemistry, Earth Science, Environmental Studies, Geology, Physical Science, or Physics and Mathematics 185, 280.

^F Completion of Chemistry 259 or Chemistry 249 and Mathematics 185 highly recommended for Chemistry Emphasis Students.

Geology Emphasis:

Course	Units
Science Core Required Courses	9
Geology 101, Introduction to Geology	3
Geology 101L, Introduction to Geology Laboratory	1
Geology 201, Introduction to Historical Geology	4
Electives ^{A,G}	9
Total	26

^A Electives for any emphasis of the Science Degree must be selected from the following courses:

Any course numbered 100 or higher in Astronomy, Biology, Chemistry, Earth Science, Environmental Studies, Geology, Physical Science, or Physics and Mathematics 185, 280.

^G Completion of Chemistry 229 and Mathematics 185 highly recommended for Geology Emphasis Students.

Physics Emphasis:

Course	Units
Science Core Required Courses*****	9
Physics 217, Engineering Physics I	4
Physics 227, Engineering Physics II —OR—	4
Physics 237, Engineering Physics III	
Mathematics 185, Analytic Geometry and Calculus II	4
Electives*****	5
Total	26

*****Physics Emphasis Students may substitute Mathematics 280 for Chemistry 219.

*****Completion of Physics 217/227/237 and/or Mathematics 280 highly recommended for Physics Emphasis Students.

Electives for any emphasis of the Science Degree must be selected from the following courses:

Any course numbered 100 or higher in Astronomy, Biology, Chemistry, Earth Science, Environmental Studies, Geology, Physical Science, or Physics and Mathematics 185, 280.

SECRETARIAL

(See *Business Applications and Technology*)

SIGN LANGUAGE

(See *American Sign Language*)

SOCIAL SCIENCE

Social Science Degree (sac.socs.aa)

The associate degree curriculum in social science is designed to provide the student with a better understanding of human behavior, past and present, the historical and social environmental forces that operate in the world, and the significant problems of the present day. Completion of the degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree. Some employment opportunities are available in the teaching of social science.



Major requirements for the associate in arts degree:

Required Courses	Units
History 101, World Civilizations to the 16th Century —OR—	
History 101H, Honors World Civilizations to the 16th Century —OR—	3
History 102, World Civilizations Since the 16th Century —OR—	
History 102H, Honors World Civilizations Since the 16th Century	
History 120, United States to 1865 —OR—	
History 120H, Honors United States to 1865 —OR—	3
History 121, United States Since 1865 —OR—	
History 121H, Honors United States Since 1865	
Anthropology 100, Cultural Anthropology —OR—	
Anthropology 100H, Honors Cultural Anthropology —OR—	3
Sociology 100, Introduction to Sociology —OR—	
Sociology 100H, Honors Introduction to Sociology	
Economics 120, Principles/Macro	3
Political Science 101, Introduction to Government —OR—	
Political Science 101H, Honors Introduction to Government	3
Psychology 100, Introduction to Psychology —OR—	
Psychology 100H, Honors Introduction to Psychology	3
Select a minimum of 6 units from the recommended electives below:	6
Total	24

Recommended electives: Anthropology 101, 103, 125; Computer Science 100; Geography 100 or 100H, History 125, 127, 181; Interdisciplinary Studies 117H; Political Science 200 or 200H, 201, 220.

SOCIOLOGY

Option 1 Sociology Degree (sac.soc.aa)

The associate degree curriculum in sociology is an interdisciplinary social science program providing students an understanding of interpersonal behavior and social structure, a critical appreciation of contemporary social life, and a frame of reference for an analysis of human behavior. Completion of the associate in arts degree prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree.

Major requirements for the associate in arts degree:

Required courses	Units
Anthropology 100, Introduction to Cultural Anthropology —OR—	3
Anthropology 100H, Honors Introduction to Cultural Anthropology	
Psychology 100, Introduction to Psychology —OR—	3
Psychology 100H, Honors Introduction to Psychology	
Sociology 100, Introduction to Sociology —OR—	3
Sociology 100H, Honors Introduction to Sociology	
Sociology 140, Analysis of Social Trends and Problems —OR—	3
Sociology 140H, Honors Analysis of Social Trends and Problems	

Selected electives (two courses from the following):

Anthropology 101, Introduction to Physical Anthropology (3)	
*Anthropology 104, Language and Culture (3) —OR—	
*Anthropology 104H, Honors Language and Culture (3) —OR—	
*English 104, Language and Culture (3) —OR—	
*English 104H, Honors Language and Culture (3)	
Anthropology 105/History 105, Ancient Mesoamerican Civilization(5)	
Anthropology 125/History 125, Native Americans in the U.S. (3)	
Mathematics 219, Statistics and Probability (4) —OR—	
Mathematics 219H, Honors Statistics and Probability (4) —OR—	
Social Science 219, Statistics and Probability (4) —OR—	
Social Science 219H, Honors Statistics and Probability (4)	
Psychology 140, Introduction to Psychology of Adulthood and Aging	
Psychology 157, Introduction to Child Psychology (3)	
Psychology 240, Introduction to Social Psychology (3) —OR—	
Sociology 240, Introduction to Social Psychology (3)	
Sociology 112, Relationships, Marriage and Family Dynamics (3)	
Total	18

Option 2 Associate in Arts in Sociology for Transfer (sac.soc.aat)

The Associate in Arts in Sociology for Transfer (A.A.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in sociology. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU campus, Fullerton, in one of seven different Sociology majors. See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees. Upon completion of this degree, students will accurately apply key sociological concepts when assessing their own and other societies; and distinguishing between personal/group opinions and scientific conclusions when analyzing and evaluating social issues. Students will be able to clearly communicate historical, social and cultural awareness in oral and written assignments, including an awareness of the variety and relative severity of social issues impacting people differently due to their particular place within the social structure.

Course	Units
Required Core (includes List A) (10 units)	
Sociology 100, Introduction to Sociology —OR—	3
Sociology 100H, Honors Introduction to Sociology	
List A – two courses	
Sociology 140, Analysis of Social Trends and Problems OR —OR—	3
Sociology 140H, Honors Analysis of Social Trends and Problems	
Mathematics 219, Statistics and Probability —OR—	
Mathematics 219H, Honors Statistics and Probability —OR—	4
Social Science 219, Statistics and Probability —OR—	
Social Science 219H, Honors Statistics and Probability	



List B – two courses (6 units)

Sociology 112, Relationships, Marriages, and Family Dynamics	3
Sociology 240, Introduction to Social Psychology	3
Psychology 240, Introduction to Social Psychology	3

List C – select one course (3-4 units)

Anthropology 100, Introduction to Cultural Anthropology	3
Anthropology 100H, Honors Introduction to Cultural Anthropology	4
English 101H, Honors Freshman Composition	4
English 102, Literature and Composition	4
English 103, Critical Thinking and Writing	4
English 103H, Honors Critical Thinking and Writing	4
Geography 102, Cultural Geography	3
Philosophy 110, Critical Thinking	4
Philosophy 110H, Honors Critical Thinking	4
Psychology 100, Introduction to Psychology	3
Psychology 100H, Honors Introduction to Psychology	3

OR another introductory course in the social sciences chosen from:

Asian American Studies 101; Biology 200; Black Studies 101; Chicano Studies 101; Counseling 150; Criminal Justice 101; Economics 120, 121; Environmental Studies 200; Ethnic Studies 101, 101H; Geography 100, 100H, History 118, 120, 120H, 121, 121H, 122, 123, 124, 124H, 127, 146; Human Development 107; Political Science 101, 101H; Psychology 157; Science 200; Television/Video Communications 105, 105H; Women’s Studies 101

Total Units for the Major 19-20

SPEECH-LANGUAGE PATHOLOGY ASSISTANT

Speech-Language Pathology Assistant Degree (sac.slpa.aa)

The Speech-Language Pathology Assistant Program is designed to prepare students for employment assisting speech-language pathologists working with communicatively disordered children and adults. Students will be trained to administer treatment as prescribed by the speech-language pathologist, conduct screenings for speech-language and hearing disorders, and to provide general support assistance to the speech-language pathologist. The Associate of Arts program offers an intensive course of study in the area of speech and language disorders, including supervised treatment and field experience in a variety of settings such as educational, clinical, and/or medical.

Further, there is a high probability that students will be required to complete immunizations, fingerprinting (at the student’s cost) and/or have a drug test and criminal background check at a fieldwork site. Problems with fingerprinting and background checks could result in a delay of placement or failure of program completion.

Upon completion of the A.A. Degree program, the graduate is eligible for registration as a Speech-Language Pathology Assistant by the Department of Consumer Affairs, Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board. Prior to obtaining employment, students who have completed all A.A. degree requirements will need to apply for registration to practice in the State of California through the Department of Consumer Affairs, Speech Language Pathology and Audiology and Hearing Aid Dispensers Board, 2005 Evergreen Street, Suite 2100, Sacramento, CA 95815, phone number 916-263-2666. When applying for registration with the California board, applicants will be asked to answer questions related to the topic of felonies. In addition, applicants must submit fingerprints for a Department of Justice and Federal Bureau of Investigation background check, to be done at the applicant’s expense, and possess a valid social security number. For information about limitations

based on felonies, applicants are advised to call the Board directly anytime prior to the application process. Registration application and complete information on necessary documents can be obtained through the Department of Consumer Affairs, Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board website at www.speechandhearing.ca.gov.

Major requirements for the associate degree:

All A.A. degree requirements must be completed with a grade of C or better at the conclusion of the program.

Course	Units
Speech-Language Pathology Assistant 118, Introduction to Speech-Language Pathology Assisting	1
Speech-Language Pathology Assistant 119, Speech, Language and Hearing Development Across the Lifespan	3
Communication Studies 151, Voice and Diction for Effective Communications	3
Human Development 107, Child Growth and Development (DS1)	3
Psychology 157, Introduction to Child Psychology	3
Human Development 108A, Observation and Assessment for Early Learning and Development	3
Speech-Language Pathology Assistant 120, Speech-Language Pathology Clinical Management and Procedures	2
Speech-Language Pathology Assistant 150, Observation of Speech-Language Pathology Clinical Practices	0.5
Speech-Language Pathology Assistant 160, Introduction to Communicative Disorders and Treatment	3
Communication Studies 170, Introduction to Phonetics	3
Speech-Language Pathology Assistant 180, Speech-Language Pathology Screening Processes and Intervention Procedures	3
Speech-Language Pathology Assistant 190, Clinical Fieldwork I	2
Speech-Language Pathology Assistant 200, Adult and Geriatric Communication Disorders	3
Human Development 205, Exceptionality and Special Needs in Human Development	3
Speech-Language Pathology Assistant 250, Speech-Language Pathology Assistant Clinical Fieldwork II	2
Sign Language 110, American Sign Language I	3
Total	37.5

General Education Requirements:

Biology 109, Fundamentals of Biology	3
Biology 109H, Honors Fundamentals of Biology	3
Biology 109L, Fundamentals of Biology Laboratory	1
Biology 149, Anatomy and Physiology	4
Biology 239, General Human Anatomy	4
English 101, Freshman Composition	4
English 101H, Honors Freshman Composition	4
Psychology 100, Introduction to Psychology	3
Psychology 100H, Honors Introduction to Psychology	3
Communication Studies 101, Introduction to Interpersonal Communication	3
Communication Studies 101H, Honors Introduction to Interpersonal Communication	3
Communication Studies 103, Introduction to Intercultural Communication	3
Communication Studies 103H, Honors Introduction to Intercultural Communication	3
Anthropology 104, Language and Culture	3
Anthropology 104H, Honors Language and Culture	3
English 104, Language and Culture	3
English 104H, Honors Language and Culture	3



Mathematics 080, Intermediate Algebra —OR—	4
Mathematics 081, Intermediate Algebra	
Psychology 140, Introduction to Psychology of Adulthood and Aging	3
Total	27

To complete the AA degree requirements, students need to fulfill the requirements for American Institutions, Reading, Lifelong Understanding and Self-Development Section F2.

SUPERVISION

(See Management)

TEACHING

Teaching is both an extremely rewarding and challenging profession. Students planning to teach elementary, secondary or special education may begin preparation at Santa Ana College. The college offers programs of study which fulfill the lower-division requirements for transfer into majors at CSU, UC, and independent colleges throughout the state.

Suggested Preparation for Elementary Teaching:

Liberal Studies and Child Development are the two most common university majors for students who are planning to enter Teacher Education programs for the multiple-subject teaching credential.

At Santa Ana College these relevant majors are described under Elementary Education (Pre-Professional) and the Human Development School-Age Option.

Suggested Preparation for Secondary Teaching:

Teaching at the secondary level (junior high / high school) requires a single-subject teaching credential. The best preparation is to major in the subject area one plans to teach.

Suggested Preparation for Special Education Teaching:

Students interested in working with students with special needs should determine which age group they are most interested in teaching. For elementary special education, students should take coursework as if they are preparing for the elementary classroom. Students interested in this area could use the Special Education Paraprofessional Program available at Santa Ana College to prepare for transfer to the university. For secondary special education, students should major in a core single-subject area (such as math, science, and English).

For more information on preparation for a career in teaching, please visit the Santa Ana College Center for Teacher Education, S-110.

TELEVISION/VIDEO COMMUNICATIONS

Television/Video Communications Degree (sac.tv.aa)

The television/video communications program provides training in all major facets of television production with special emphasis on studio and field production, editing, broadcast journalism, scriptwriting, and computer graphics and animation.

Completion of the associate degree prepares students to move into a four-year program leading to a baccalaureate degree. Please consult a SAC Counselor for information about course requirements for particular four-year institutions. The associate degree also trains students to assume entry level positions in broadcasting, cable TV, corporate video, and advertising.

The AA degree and certificate options for RSCCD Television/Video Communications department use the following courses as the common, required core for all:

Course	Units
Television/Video Communications 100, Introduction to Electronic Media: Broadcasting, Cable, Video	3
Television/Video Communications 110, Introduction to Television Production	3
Television/Video Communications 112, Introduction to Video Editing and Post Production	3
Television/Video Communications 130, Principles of Broadcast News	3
Total Core	12

Major requirements for the associate in arts degree:

Course	Units
CORE COURSES	12
In addition, the following courses are required:	
Television/Video Communications 115A, Single-Camera Production and Editing	3
Television/Video Communications 120, Beginning Writing for TV, Film and Corporate Video	3
Television/Video Communications 150, Producing and Directing for Television	3
Television/Video Communications 161, Fundamentals of Audio for TV and Film	1.5
Television/Video Communications 230A, Broadcast News Production	4
Television/Video Communications 260, Lighting Systems and Techniques for TV/Video	2
Plus 6 units from the elective list below	6
Total	34.5

Electives must be chosen from the following: Art 196A, 197A; Communications & Media Studies 130, 131, 230B, 230C, 230D; Communication Studies 151; Television/Video Communications 009, 010, 101, 103, 104, 105 or 105H, 114, 115B, 121, 131, 141, 142, 165, 181, 185, 187, 190, 215, 230B, 230C, 230D, 268, 298; Theatre Arts 110, 113, 131.

Television/Video Communications Certificate

The Television/Video communications program provides training in all major facets of television production with special emphasis on studio and field production, editing, broadcast journalism, scriptwriting, and computer graphics and animation.

Completion of the certificate qualifies students for entry-level positions in commercial, cable, and industrial television.

Television/Video Communications A-Television Production Certificate (Transcribed) (sac.tva.ca)

Emphasis on orientation with studio and field equipment, production planning, program directing, and post-production process.

Course	Units
CORE COURSES	12
In addition, the following courses are required:	
Television/Video Communications 115A, Single-Camera Production and Editing	3
Television/Video Communications 120, Beginning Writing for TV, Film and Corporate Video	3
Television/Video Communications 150, Producing and Directing for Television	3
Television/Video Communications 161, Fundamentals of Audio for TV and Film	1.5
Television/Video Communications 230A, Broadcast News Production	4
Television/Video Communications 260, Lighting Systems and Techniques for TV/Video	2
Plus 6 units from the elective list below	6
Total	34.5



Electives must be chosen from the following courses: Art 196A, 197A; Communication Studies 151; Communications & Media Studies 131, 230B, 230C, 230D; Television/Video Communications 009, 010, 101, 103, 104, 105 or 105H, 114, 115B, 121, 123, 131, 141, 142, 165, 181, 185, 187, 190, 230B, 230C, 230D, 268, 298; Theatre Arts 110, 113, 131.

Television/Video Communications B–Broadcast Journalism Certificate (Transcribed) (sac.tvb.ca)

Emphasis on preparing students for work in television news programming, documentaries, or public service productions. Students will gain practical experience producing and staffing a weekly news show aired on local cable television.

Course	Units
CORE COURSES	12
In addition, the following courses are required:	
Television/Video Communications 115A, Single-Camera Production and Editing	3
Television/Video Communications 120, Beginning Writing for TV, Film and Corporate Video	3
Television/Video Communications 141, On-Camera Appearance	3
Television/Video Communications 161, Fundamentals of Audio for TV and Film	1.5
Television/Video Communications 230A, Broadcast News Production	4
Television/Video Communications 230B, Broadcast News Production	4
Television/Video Communications 260, Lighting Systems and Techniques for TV/Video	2
Plus 3 units from the elective list below	3
Total	35.5

Electives must be chosen from the following courses: Art 196A, 197A; Communication Studies 151; Communications & Media Studies 131, 230C, 230D; Television/Video Communications 009, 010, 101, 103, 104, 105 or 105H, 114, 115B, 121, 123, 131, 142, 143, 150, 165, 181, 185, 187, 190, 198, 230C, 230D, 268, 298; Theatre Arts 110, 113, 131.

Television/Video Communications C–Television Scriptwriter Certificate (Transcribed) (sac.tvc.ca)

Emphasis on learning writing skills for the development of such television programming as sitcoms, talk shows, news and documentaries, musical variety shows, game shows and soaps, as well as commercials and corporate video presentations.

Course	Units
CORE COURSES	12
In addition, the following courses are required:	
Television/Video Communications 101, Television and Society: A Visual History	3
Television/Video Communications 120, Beginning Writing for TV, Film and Corporate Video	3
Television/Video Communications 121, Intermediate Writing for TV and Film	3
Television/Video Communications 123, Advanced Writing Projects for TV, Film and Corporate Video	3
Television/Video Communications 150, Producing and Directing for Television	3
Television/Video Communications 230A, Broadcast News Production	4
Plus 3 units from the elective list below	3
Total	34

Electives must be chosen from the following courses: Art 196A, 197A; Communication Studies 151; Communications & Media Studies 230B, 230C, 230D; Television/Video Communications 009, 010, 101, 103, 104, 105 or 105H, 114, 115A, 115B, 121, 123, 131, 141, 142, 165, 181, 185, 187, 190, 230B, 230C, 230D, 268, 298; Theatre Arts 110, 113, 131.

Television/Video Communications D–Computer Graphics and Animation for Video Certificate (Transcribed) (sac.tvd.ca)

Emphasis on preparing the student for work in computer graphics and computer-generated animation as used in video productions. Students will learn concepts of design and application and will also gain practical hands-on experience working with computer systems equipped with graphic, animation, and special effects software.

Course	Units
CORE COURSES	12
In addition, the following courses are required:	
Art 195, Introduction to Digital Media Arts	3
Television/Video Communications 181, 3D Modeling	5
Television/Video Communications 185, 3D Animation	5
Television/Video Communications 187, Electronic Graphics for Television, Advanced Techniques	2
Plus 9 units from the elective list below	9
Total	36

Electives must be chosen from the following courses: Art 196A, 197A; Communication Studies 151; Communications & Media Studies 131, 230B, 230C, 230D; Television/Video Communications 009, 010, 101, 103, 104, 105 or 105H, 114, 115B, 121, 123, 131, 141, 142, 143, 154, 165, 181, 185, 187, 230B, 230C, 230D, 268, 298; Theatre Arts 110, 113, 131.

Television/Video Communications–Media Studies Certificate (Untranscribed) (sac.tvms.cert)

Emphasis on preparing students for careers as producers and executives in the cable, television, and film industries as well as those who wish to be media teachers, critics, and historians. Students will gain theoretical knowledge about the history, development, and societal impact of the media in the United States and the world as well as practical experience in dealing with production aesthetics and terminology, basic scriptwriting skills, and business and budgeting applications relating to the electronic media.

CORE COURSES for other Television/Video Communications Certificates not required for this specialty Certificate.

Course	Units
Television/Video Communications 100, Introduction to Electronic Media: TV, Radio, Film and the Internet	3
Television/Video Communications 101, Television and Society: A Visual History	3
Television/Video Communications 103 or Theater Arts 103, History of Film to 1945	3
—OR—	
Television/Video Communications 104 or Theater Arts 104, History of Film from 1945 to Present	3
Television/Video Communications 105, Mass Media and Society	3
—OR—	
Television/Video Communications 105H, Honors Mass Media and Society	3
Television/Video Communications 120, Beginning Writing for TV, Film and Corporate Video	3
Total	15



THEATRE ARTS

Option 1 (A)

Performance Emphasis Degree (sac.taper.aa)

The Theatre Arts Performance degree provides a fundamental exploration of Theatre Arts focusing on performance styles and acting techniques. It is designed to prepare the student for entry level performance careers in stage, television, and film, as well as other occupations where voice training, dynamic presentations, and adaptability in interactive style are important. This degree provides a more flexible and diverse study plan in comparison to the associate in arts degree for transfer. Please consult a SAC counselor for information about course requirements for particular four-year institutions.

Major requirements for the associate of arts degree:

Core courses: 9 units	Units
Theatre Arts 100, Introduction to the Theatre —OR—	3
Theatre Arts 105, A Cultural History of World Theatre	3
Theatre Arts 110, Fundamentals of Acting	3
Theatre Arts 131, Stagecraft	3

Plus 9 units from the following courses 9

Theatre Arts 111, Intermediate Acting (3)	
Theatre Arts 113, Acting for Television and Film (3)	
Theatre Arts 118, Fundamentals of Scene Study (2)	
Theatre Arts 132, Stage Makeup (2)	
Theatre Arts 135, technical Production (1)	
Theatre Arts 150, Theatre Production (2)	
Theatre Arts 151, Showcase (2)	
Theatre Arts 152, Tour Ensemble (3)	
Theatre Arts 153, Introduction to Directing (2)	
Theatre Arts 154, Performance Ensemble (2)	
Theatre Arts 155, Children's Theatre Ensemble (2)	
Theatre Arts 156, Reader's Theatre Workshop (2)	
Theatre Arts 198, Topics (2)	
Theatre Arts 250, Advanced Theatre Production (2)	
Total	18

Option 1 (B)

Technical Theatre Emphasis Degree (sac.tatec.aa)

The Technical Theatre degree provides a fundamental exploration of Theatre Arts focusing on the technical elements that support performers and enhance performances. It is designed to prepare the student for entry level technical careers in such as stage technician, lighting technician, sound technician, master electrician, scenic carpenter, stage manager, and other related careers. This degree provides a more flexible and diverse study plan in comparison to the associate in arts degree for transfer.

Major requirements for the associate of arts degree:

Core courses: 9 units	Units
Theatre Arts 100, Introduction to the Theatre —OR—	3
Theatre Arts 105, A Cultural History of World Theatre	3
Theatre Arts 110, Fundamentals of Acting	3
Theatre Arts 131, Stagecraft	3

Plus 9 units from the following courses 9

Theatre Arts 132, Stage Makeup (3)	
Theatre Arts 133, Stage Lighting (3)	
Theatre Arts 135, Technical Production (1)	
Theatre Arts 150, Theatre Production (2)	
Theatre Arts 165, Introduction to Intelligent Lighting (2)	
Theatre Arts 166A, Intermediate Programming (2)	
Theatre Arts 167, Setup for Intelligent Lighting (1)	
Theatre Arts 168A, Computer Applications for Entertainment Lighting (2.5)	
Theatre Arts 170, Entertainment Technology Internship (1)	
Theatre Arts 198, Topics (3)	
Theatre Arts 250, Advanced Theatre Production, (2)	
Total	18

Option 2

Associate in Arts in Theatre Arts for Transfer (sac.taper.aat)

The Associate in Arts in Theatre Arts for Transfer (A.A.-T) prepares students to move into a curriculum at a four-year institution leading to a baccalaureate degree in theatre arts which can lead to careers in teaching, design, technical theatre, theatre management, professional performance, stage direction, stage management, and related areas. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the A.A.-T degree also provides guaranteed admission with junior status to the CSU system, along with priority admission to the local CSU, Fullerton, in the Theatre Arts major. **See page 30 for a list of additional requirements for all Associate in Arts for Transfer (A.A.-T) and Associate in Science for Transfer (A.S.-T) degrees.** Upon completion of the A.A.-T in Theatre Arts, students will understand and be able to demonstrate the fundamental performance and technical production processes for the theatre arts, demonstrate knowledge of the historical and cultural dimensions of theatre, and understand the interaction between script, actor, and audience and the areas of scenery, lighting, sound, and costume.

Core courses: 9 units	Units
Theatre Arts 100, Introduction to the Theatre —OR—	3
Theatre Arts 105, A Cultural History of World Theatre	3
Theatre Arts 110, Fundamentals of Acting	3

Rehearsal and Performance to a maximum of 3 units chosen from the following courses: 3

Theatre Arts 151, Showcase (2)	
Theatre Arts 152, Tour Ensemble (3)	
Theatre Arts 153, Introduction to Directing (2)	
Theatre Arts 154, Performance Ensemble (2)	
Theatre Arts 155, Children's Theatre Ensemble (2) —OR—	

Technical Theatre Practicum to a maximum of 3 units chosen from the following courses:

Theatre Arts 135, Technical Production (1)	
Theatre Arts 150, Theatre Production (2)	



List A (select 3): 9 units

9

- Theatre Arts 111, Intermediate Acting (3)
- Theatre Arts 131, Stagecraft(3)
- Theatre Arts 132, Stage Makeup (3)
- Theatre Arts 133, Stage Lighting (3)

Rehearsal and Performance (if not used as part of the core) to a maximum of 3 units chosen from the following courses:

- Theatre Arts 150, Theatre Production (2)
- Theatre Arts 151, Showcase (2)
- Theatre Arts 152, Tour Ensemble (3)
- Theatre Arts 153, Introduction to Directing (2)
- Theatre Arts 154, Performance Ensemble (2)
- Theatre Arts 155, Children's Theatre Ensemble (2)

Technical Theatre Practicum (if not used as part of the core) to a maximum of 3 units chosen from the following courses:

- Theatre Arts 135, Technical Production (1)
- Theatre Arts 150, Theatre Production (2)

Total 18

Changes to this degree are pending approval from the Community College Chancellor's Office. Please consult a counselor for additional information.

Entertainment Lighting Technology Certificate (Untranscripted) (sac.taelt.cert)

The Entertainment Lighting Technology Certificate program provides hands-on educational training with a focus on emerging lighting systems through the study of automated fixtures and varied control consoles, including contemporary computer apps used for show design, visualization, project management, and support documentation.

Students will become proficient in the utilization of both conventional and automated lighting technologies commonly used in concerts, dance performances, television, theatre, theme parks, sports arenas, houses of worship, industrial applications, and more. Students will develop the fundamental skills necessary to assist them in pursuing career paths such as:

- Entertainment Lighting Technician
- Moving Light Programmer
- Console Operator
- Moving Light Technician
- Master Electrician
- Assistant Lighting Designer

Requirements for the certificate:

Core Courses: 14.5 units	Units
Theatre Arts 131, Stagecraft	3
Theatre Arts 133, Stage Lighting	3
Theatre Arts 165, Introduction to Intelligent Lighting	2
Theatre Arts 166A, Intermediate Programming	2
Theatre Arts 167, Set Up for Intelligent Lighting	1
Theatre Arts 168A, Computer Applications for Lighting	2.5
Theatre Arts 170, Entertainment Technology Internship	1
Plus a minimum of 3 units from the following courses:	3
Theatre Arts 135, Technical Production (1)	
Theatre Arts 150, Theatre Production (2)	
Total	17.5

WELDING

Welding Technology Degree (sac.weld.as)

In addition to the general education requirements, the associate degree and certificate curriculum in welding technology is designed to provide comprehensive occupational training in all common types of welding methods relating to the needs of today's welding fabrication industry. The program provides students with manipulative skills and technical knowledge required to operate oxyacetylene, shielded electric arc, M.I.G., T.I.G. and semiautomatic flame cutting welding equipment. In addition, students will be prepared for certification as required by employment in the welding industry. Employment opportunities available are welder, welder technician, inspector, maintenance welder, production welder in manufacturing, construction industries and shipbuilding. The Santa Ana College Welding Program is a Los Angeles Certified Testing Lab Facility. The program offers training and testing for the following certifications: SMAW, FCAW, T.I.G., and M.I.G.

Major requirements for the associate degree:

Course	Units
Welding 008, Oxyacetylene-Arc Welding	3
Welding 025A, Intermediate Arc Welding	3
Welding 029A, Advanced Arc Welding Level I	3
Welding 039A, Inert Gas Welding Level I	3
Welding 053, Math/Blue Print Reading for Welders	3
Manufacturing Technology 028, Basic Metals Technology	3
Please select 3 units from the following list:	3
Business 170, Principles of Small Business Management (3)	
English 061, Introduction to Composition (3)	
Manufacturing Technology 053, Technical Mathematics (3)	
Communication Studies 101, Introduction to Interpersonal Communication (3)	
—OR—	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	
Total	21

Welding Technology Certificate (Transcripted) (sac.weld.ca)

The certificate curriculum in welding technology is designed to provide comprehensive occupational training in all common types of welding methods relating to the needs of today's welding fabrication industry. The program provides students with manipulative skills and technical knowledge required to operate oxyacetylene, shielded electric arc, MIG,TIG and semiautomatic flame cutting welding equipment. In addition, students will be prepared for certification as required by employment in the welding industry. Employment opportunities available are welder, welder technician, inspector, maintenance welder, production welder in manufacturing, construction industries and shipbuilding. The Santa Ana College Welding Program is a Los Angeles Certified Testing Lab Facility. The program offers training and testing for the following certifications: SMAW, FCAW, TIG, and MIG.

**Major requirements for the certificate:**

Course	Units
Welding 008, Oxyacetylene-Arc Welding	3
Welding 025A, Intermediate Arc Welding	3
Welding 029A, Advanced Arc Welding Level I	3
Welding 039A, Inert Gas Welding Level I	3
Welding 053, Math/Blue Print Reading for Welders	3
Manufacturing Technology 028, Basic Metals Technology	3
Please select 3 units from the following list:	3
Business 170, Principles of Small Business Management (3)	
English 061, Introduction to Composition (3)	
Manufacturing Technology 053, Technical Mathematics (3)	
Communication Studies 101, Introduction to Interpersonal Communication (3)	
—OR—	
Communication Studies 101H, Honors Introduction to Interpersonal Communication (3)	
Total	21

Advanced Arc-Semi-Automatic Welding Certificate (Transcripted) (sac.advweld.ca)

The certificate curriculum in welding technology is designed to provide advanced occupational training in Advanced Arc and Inert Gas Welding in common types of welding methods relating to the needs of today's welding fabrication industry. The program provides students with manipulative skills and technical knowledge required to operate oxyacetylene, shielded electric arc, MIG, TIG and semiautomatic flame cutting welding equipment. In addition, students will be prepared for certification as required by employment in the welding industry. Employment opportunities available are welder, welder technician, inspector, maintenance welder, production welder in manufacturing, construction industries and shipbuilding. The Santa Ana College Welding Program is a Los Angeles Certified Testing Lab Facility. The program offers training and testing for the following certifications: SMAW, FCAW, TIG, MIG and PIPE.

Major requirements for the certificate:

Course	Units
Welding 029B, Advanced Arc Welding Level II	3
Welding 029C, Advanced Arc Welding Level III	3
Welding 029D, Advanced Arc Welding Level IV	3
Welding 039B, Inert Gas Welding Level II	3
Welding 039C, Inert Gas Welding Level III	3
Welding 040B, Welding Training Certification Level II	3
Welding 040C, Welding Certification Training Level III	3
Welding 041B, Welding Certification Exam Preparation Level II	3
Total	24

WOMEN'S STUDIES

Women's Studies Degree (sac.wmns.aa)

The associate degree curriculum in women's studies is a liberal arts major which is designed to meet the following needs: 1) to help women develop a perspective pertaining to their own self-interest and relate those views to social and cultural factors such as economic necessity, political participation, historical patterns, and ethics; 2) to develop their self-awareness in relation to others; 3) to develop skills of communication and analysis; 4) to prepare for transfer to four-year colleges and schools of professional training; 5) to enrich women's knowledge of their culture and the rapid developments that are taking place within it.

Major requirements for the associate in arts degree:

Course	Units
Women's Studies 101, Introduction to Women's Studies	3
Women's Studies 102, Women in America: Work, Self, Family	3
Women's Studies 201, Contemporary Women's Issues	3
English 278, Survey of Literature by Women	3
Kinesiology Health Education 102, Women's Health Issues	3
Interdisciplinary Studies 155, Human Sexuality	3
History 127, Women in U.S. History	3
Electives	6
Total	27

Recommended electives: Counseling 116, 117; History 181; Philosophy 108; Psychology 140; Sociology 112; Women's Studies 198.







ANNOUNCEMENT OF COURSES

Each course is designated by a number. A descriptive title and the units allowed for the course follow the course number. Courses numbered 100 and above are university parallel courses and are offered for transfer to colleges and universities. See page 46, Transferability of Courses. Courses numbered 100 and above followed by the letter “H” are university parallel courses for transfer to colleges and universities and are offered as part of the Santa Ana College Honors Program. Students enrolling in these courses must meet the designated prerequisites. Courses numbered less than 100 are not designed for transfer. Since these courses are not ordinarily offered in the universities and four-year colleges, they are not always applicable to the requirements for the bachelor of arts or bachelor of science degrees; however, courses numbered below 100 are applicable to the associate degree unless preceded by the letter “N”. Courses numbered less than 100 preceded by the letter “N” are not applicable to the associate degree and do not count toward graduation but do count toward course load.



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. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example COMM 110, students at that college can be assured that it will be accepted in lieu of a course

bearing the C-ID COMM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to www.assist.org to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted

from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations. Counselors can always help students interpret this information.

At the time of catalog publication many more SAC courses were pending C-ID approval. Please consult a counselor for the latest C-ID information.

C-ID	SAC COURSE	C-ID	SAC COURSE
ACCT 110	ACCT 101, Financial Accounting	ENGL 110	ENGL 102 or 102H, Literature and Composition or Honors Literature and Composition
ACCT 120	ACCT 102, Managerial Accounting	ENGL 120	ENGL 102 or 102H, Literature and Composition or Honors Literature and Composition
AJ 110	CJ 101, Introduction to Criminal Justice	ENGL 160	ENGL 231, Survey of English Literature I
AJ 120	CJ 103, Concepts of Criminal Law	ENGL 165	ENGL 232, Survey of English Literature II
AJ 122	CJ 107, Principles and Procedures in the Criminal Justice System	GEOG 110	GEOG 101, Physical Geography
AJ 124	CJ 105, Legal Aspects of Evidence	GEOG 111	GEOG 101L, Physical Geography Laboratory
AJ 140	CJ 205, Criminal Investigation Principles	GEOG 120	GEOG 102, Cultural Geography
AJ 150	CJ 108, Crime Scene Investigation	GEOG 125	GEOG 100 or 100H, World Regional Geography or Honors World Regional Geography
AJ 160	CJ 109, Community Interaction	GEOG 155	BA 150, Introduction to Geographic Information Systems
AJ 200	CJ 102, Introduction to Corrections	ITIS 120	BUS 150, Introduction to Information Systems and Applications
AJ 220	CJ 220, Juvenile Delinquency and Control	JOUR 100	TELV 105 or 105H, Mass Media and Society or Honors Mass Media and Society
CDEV 100	HUD 107, Child Growth and Development	JOUR 110	CMSD 121, Introduction to Reporting and Newswriting
CDEV 100	PSYC 157, Introduction to Child Psychology	JOUR 130	CMSD 123A, News Media Production
CDEV 110	HUD 110, Child, Family and Community	JOUR 131	CMSD 123A, News Media Production
COMM 120	CMST 140, Argumentation and Debate	JOUR 160	CMSD 160, Introduction to Photojournalism
COMM 130	CMST 101 or 101H, Introduction to Interpersonal Communication or Honors Introduction to Interpersonal Communication	JOUR 170	CMSD 103, Introduction to Visual Communication
COMM 150	CMST 103 or CMST 103H, Introduction to Intercultural Communication or Honors Introduction to Intercultural Communication	JOUR 210	CMSD 210, Intermediate Reporting and Newswriting
COMP 122	CMPR 121, Programming Concepts	KIN 100	KNPR 101, Introduction to Kinesiology
COMP 132	CMPR 131, Data Structures Concepts	KIN 101	KNHE 105 + KNHE 107, First Aid and Personal Safety Cardiopulmonary Resuscitation
COMP 142	CMPR 129, Introduction to Computer Organization	MUS 100	MUS 101 or 101H, Music Appreciation or Honors Music Appreciation
COMP 152	CMPR 140, Discrete Structures for Computer Science	MUS 120	MUS 111, Basic Music Theory and Musicianship I
ECE 120	HUD 111A, Principles and Practices of Teaching Young Children	MUS 125	MUS 111, Basic Music Theory and Musicianship I
ECE 200	HUD 108A, Observation and Assessment for Early Learning and Development	MUS 130	MUS 112, Music Theory and Musicianship II
ECE 210	HUD 298A, Practicum in Early Childhood Programs	MUS 135	MUS 112, Music Theory and Musicianship II
ECE 220	HUD 112, Health, Safety and Nutrition for Children	MUS 140	MUS 213, Theory 3
ECE 230	HUD 221, Teaching in a Diverse Society	MUS 145	MUS 114A, Musicianship
ECON 201	ECON 121, Principles/Micro	MUS 150	MUS 214, Theory 4
ECON 202	ECON 120, Principles/Macro	MUS 155	MUS 114B, Musicianship
ENGL 100	ENG 101 or 101H, Freshman Composition or Honors Freshman Composition	MUS 160	MUS 115A, Applied Music (Private Instruction)
ENGL 105	ENGL 103 or 103H, Critical Thinking and Writing or Honors Critical Thinking and Writing	MUS 160	MUS 115B, Applied Music (Private Instruction)
		MUS 160	MUS 115C, Applied Music (Private Instruction)



C-ID	SAC COURSE
MUS 160	MUS 115D, Applied Music (Private Instruction)
MUS 180	MUS 137, Chamber Choir
MUS 180	MUS 181, Chamber Orchestra
PHIL 110	PHIL 111, Introductory Logic
PHYS 205	PHYS 217, Engineering Physics I
PHYS 210	PHYS 227, Engineering Physics II
PSY 110	PSYC 100 or 100H, Introduction to Psychology or Honors Introduction to Psychology
PSY 170	SOC 240, Introduction to Social Psychology
SOCI 110	SOC 100 or 100H, Introduction to Sociology or Honors Introduction to Sociology
SOCI 115	SOC 140 or 140H, Analysis of Social Trends and Problems or Honors Analysis of Social Trends and Problems
SOCI 125	MATH 219 or 219H, Statistics and Probability or Honors Statistics and Probability
SOCI 125	SOCS 219 or 219H, Statistics and Probability or Honors Statistics and Probability
SOCI 130	SOC 112, Relationships, Marriages, and Family Dynamics
THTR 111	THEA 100, Introduction to Theatre
THTR 151	THEA 110, Acting Fundamentals
THTR 152	THEA 111, Intermediate Acting
THTR 171	THEA 131, Stagecraft
THTR 173	THEA 133, Stage Lighting
THTR 175	THEA 132, Stage Makeup
THTR 191	THEA 150, Theatre Production
THTR 191	THEA 151, Showcase
THTR 191	THEA 152, Tour Ensemble
THTR 191	THEA 154, Performance Ensemble
THTR 191	THEA 155, Children's Theatre Ensemble
THTR 192	THEA 135, Technical Production
THTR 192	THEA 150, Theatre Production

Prerequisites Definition

Prerequisites are courses, skills, or background experiences that are considered necessary in order for a student to be successful in a course. They are required prior to enrolling in the course.

Course Materials and Service Fees

Certain courses require additional costs to the student in excess of normal book and supply expense. Such courses will be designated in the published class schedules.

THE COLLEGE RESERVES THE RIGHT TO CANCEL SCHEDULED CLASSES.

Note on Topics Courses 098 and 198:

The college may offer Topics courses, either under 098 (non-transfer) or 198 (transfer) under any discipline listed in the announcement of courses. Topics courses are specialized courses on topics related to the immediate and changing needs of students. They may not be offered every semester, and, after no more than two scheduled offerings, they must be either converted to regular ongoing course status or be deleted.



ACCOUNTING (ACCT)

Accounting 010

Accounting Procedures

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course introduces the students to the accounting cycle including journal entries, general ledger, the adjustment process and the related financial statements. The course is designed to prepare students for Accounting 101 and/or occupations in bookkeeping.

Accounting 032

Payroll Accounting

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course covers accounting for payroll, and Worker's Compensation. Calculation of payroll, payroll taxes and the related forms and deposit requirements are covered.

Accounting 035

Quickbooks

Unit(s): 2.0

Class Hours: 32 Lecture total.

Preparation of accounting records for businesses using the QuickBooks software in the Windows environment. Topics include customer transactions, vendor transactions, bank reconciliations, reports, company file setup, and customization of QuickBooks.

Accounting 101 (C-ID ACCT 110)

Financial Accounting

Unit(s): 4.0

Class Hours: 64 Lecture total.

The study of accounting as an information system, examining why it is important, and how it is used by investors and creditors to make decisions. Coverage includes the accounting information system and the recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the classified financial statements, and statement analysis. It also includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls and ethics.

Accounting 102 (C-ID ACCT 120)

Managerial Accounting

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Accounting 101 with a minimum grade of C.

Study of the use and reporting of accounting data for managerial planning, cost control, and decision making purposes. The course includes broad coverage of concepts, classifications, and behaviors of costs. Topics include cost systems, the analysis and use of cost information, cost-volume-profit analysis, contribution margin, profit planning, standard costs, relevant costs, and capital budgeting.

Accounting 104

Federal and California Taxes

Unit(s): 4.0

Class Hours: 64 Lecture total.

Learn how to prepare federal and California state income tax returns for the individual. Learn tax theory and rules behind the Form 1040 and the most common IRS Schedules, such as Schedules A, B, C, D, E, and common income adjustments and tax credits. This course is CTEC qualified. This course may be repeatable as continuing education for professional certification.

Accounting 106

Cooperative Work Experience Education - Occupational

Unit(s): 1.0 - 4.0

Class Hours: 64 Lecture total.

Supervised paid or volunteer experience in student's major including new or expanded responsibilities. One credit for each 5 hours worked per week to a maximum of 4 units for 20 hours worked per week each semester. Limitation of 16 units in occupational cooperative education courses. Students must be enrolled in a minimum of 7 units including 4 units in Accounting 106. Grade: Pass/No Pass only.

Accounting 108

Tax Practices and Procedures

Unit(s): 3.0

Class Hours: 48 Lecture total.

The course covers various special topics in tax, including specialized returns and taxpayers; practices, procedures and representation before the IRS and completion of the tax filing process. This course may be repeatable as continuing education for professional certification.

Accounting 113

Intermediate Income Taxes - Corporations

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course covers income tax theory, concepts and regulations relating to corporations. The course includes the federal and California tax systems and income taxation relating to Corporations as well as basic tax research and ethical implications. This course includes coverage of both C Corporations and S Corporations. This course may be repeatable as continuing education for professional certification.

Accounting 114

Intermediate Income Taxes - Partnership and LLCs

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course covers income tax theory, concepts and regulations relating to partnerships. The course includes the federal and California tax systems and income taxation relating to partnerships and other forms of business such as LLCs as well as basic tax research and ethical implications. This course may be repeatable as continuing education for professional certification.

Accounting 116

Money, Finance and Accounting for Entrepreneurs

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn how entrepreneurial finance works - where, when and how to get financing - debt, equity, bootstraps, angels and venture capitalists. Determine how much you need, when and how to get it. Learn the critical importance of leveraging resources. Learn that cash flow is critical to entrepreneurs. Learn what you really need to know about bookkeeping and accounting and how to use numbers to make smarter decisions (same as Entrepreneurship 107).

Accounting 124

Computerized Income Tax Preparation

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course provides a student with the practical knowledge of income tax preparation and the income tax formula using commercial tax software. This course may be repeatable as continuing education for professional certification as legally mandated, for licensure and/or due to a significant lapse of time.

Accounting 160

Accounting With Sage MAS Software

Unit(s): 3.0

Class Hours: 48 Lecture total.

Hands-on training in the use of Sage MAS integrated accounting software, covering setup and transaction processing for the three core modules: General Ledger, Accounts Payable and Accounts Receivable. Suggested preparation: Completion of a basic accounting course or practical accounting experience.

**Accounting 161****Accounting with Sage MAS Software - Advanced**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Accounting 160 with a minimum grade of C.

Expanded hands-on training in the use of Sage MAS Software covering setup and transaction processing for the primary operations modules of a merchandising business: Inventory Management, Sales Order and Purchase Order.

Accounting 170**Microsoft Dynamics for Financial Accounting - Core Modules**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Hands-on training in the use of Microsoft Dynamics integrated software covering setup and transaction processing for the core modules of general ledger, accounts payable, and accounts receivable, and financial reporting for service businesses. Suggested preparation: completion of or current enrollment in Accounting 101.

Accounting 171**Microsoft Dynamics for Financial Accounting - Operations and Analysis**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Hands-on training in the use of Microsoft Dynamics integrated software covering setup, operational processing, and analysis for general ledger, accounts payable, accounts receivable, inventory, and financial Reporting for Service and Merchandising Companies. Suggested preparation: completion of Accounting 101 and 170.

Accounting 173**Microsoft Dynamics for Project Management and Control**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Hands-on training in the use of Microsoft Dynamics integrated software covering project planning and monitoring. Covers project management from both an operational and financial perspective. Includes an introduction to Enterprise Resource Planning and Management. Suggested preparation: completion of or current enrollment in Accounting 102.

Accounting 174**Microsoft Dynamics for Business Planning and Management**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Hands-on training in the use of Microsoft Dynamics integrated software covering setup and transaction processing for modules pertaining to inventory control, supply chain management, Enterprise Resource Planning (ERP), and other aspects of operational planning and management. Suggested preparation: completion of, or current enrollment in Accounting 102 and 173 (Same as Entrepreneurship 174).

Accounting 202**Cost Accounting for Construction Engineering**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of the theoretical and practical concepts of cost accounting. Topics include variable and fixed costs, break-even point, interrelationships of cost, volume and profits; job-order accounting, general and flexible budgeting, standard costs; product costing methods; cost allocation; inventory planning; control and valuation; and joint products (Same as Engineering 202).

Accounting 204**Managerial Cost Accounting**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Accounting 102 with a minimum grade of C.

Presents the theory of cost behavior, cost accounting and cost control; the use of accounting information for management planning and decision making; cost systems, budgeting and financial performance analysis.

Accounting 205**Intermediate Accounting**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Accounting 102 with a minimum grade of C.

Second-year accounting dealing with conceptual framework, adjustments, and financial statements, present and future value concepts, cash, investments, receivables, cost and valuation procedures for inventories, accounting for plant and intangible assets.

ANTHROPOLOGY (ANTH)**Anthropology 100****Introduction to Cultural Anthropology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A cross-cultural survey of the major areas of cultural anthropology including subsistence patterns, economic and political systems, family and kinship, religion, and cultural change. Also includes contemporary issues facing humankind such as the environment, resource depletion, ethnic conflict, globalization, and warfare. Emphasis is on understanding cultural diversity and cultural universals.

Anthropology 100H**Honors Introduction to Cultural Anthropology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Seminar style, content enriched for honors students, to provide a critical and extensive exploration of the major areas of cultural anthropology. Includes contemporary issues such as globalization, gender, and ethnic conflict.

Anthropology 101**Introduction to Physical Anthropology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to humankind's place in nature including evolutionary theory, principles of genetics, primate evolution and behavior, fossil evidence for human evolution, human biology and variation, growth and adaptability, and biomedical anthropology. Includes practical application of biological anthropology to human problems.

Anthropology 101L**Physical Anthropology Laboratory**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Anthropology 101 with a minimum grade of C or concurrent enrollment.

Laboratory exercises and experiments designed to explore and understand the primary areas of physical anthropology: evolutionary theory, principles of genetics, comparative anatomy, physiology, behavior and ecology of vertebrates with an emphasis on nonhuman primates, analysis of fossil evidence for human evolution, human biology and variation, growth and adaptability, and biomedical anthropology. Includes both traditional and virtual laboratory experiences.



Anthropology 103
Introduction to Archaeology

Unit(s): 3.0

Class Hours: 48 Lecture total.

This is a survey course in world archaeology. Methods of archaeological survey and excavation will be discussed as well as past and current concepts and theories. Material remains such as lithics, bone, ceramics and ecofacts will be discussed as to how they can be interpreted into social, political, economic, religious, and ethnic terms.

Anthropology 104
Language and Culture

Unit(s): 3.0

Class Hours: 48 Lecture total.

General introduction to the processes of human communication. Includes the relationship between language and culture, acquisition of first and second languages, languages in contact, sociolinguistics and the effects of both language and culture on inter/intra group communication. Languages spoken in the local area are used as basis of study (same as English 104).

Anthropology 104H
Honors Language and Culture

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Enriched, in-depth study of the processes of human communication including the relationship between language and culture, acquisition of first and second languages, languages in contact, sociolinguistics, and the effects of both language and culture on inter/intra group communication. Languages spoken in the local area are used as the basis of study. Requires individual research and oral presentations of readings in a seminar setting (Same as English 104H).

Anthropology 105
Ancient Mesoamerican Civilization

Unit(s): 3.0

Class Hours: 48 Lecture total.

An archeological and ethnohistorical survey of the origin and development of pre-Columbian civilizations in ancient Mesoamerica from Paleo-Indian times to the Spanish conquest (Same as History 105).

Anthropology 108
Religion, Magic, and Witchcraft

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to the anthropology of religion, magic, and witchcraft. A cross cultural study focusing on the beliefs and practices of early, non-western, and traditional religious systems with emphasis on the forms, functions, structures, symbolism, history, and evolution.

Anthropology 125
Native Americans in the U.S.

Unit(s): 3.0

Class Hours: 48 Lecture total.

An historical and contemporary survey of Native Americans in the United States, including the development of tribes and nations and the cultural practices of Native Americans today (Same as History 125).

ART (ART)

Art 009

Art Lab

Unit(s): 0.5

Class Hours: 24 Laboratory total.

An open lab for studio art students for the purpose of devoting additional hours outside of class time, on projects. Projects, determined by class assignments, vary by semester. Twenty-four lab hours per semester earn .5 unit. May be repeated. Open Entry/Open Exit.

Art 010

Advanced Art Lab

Unit(s): 0.5

Class Hours: 24 Laboratory total.

An open lab for studio art students devoting additional hours on projects. Projects determined by class assignments, vary by semester. 24 lab hours per semester earn .5 unit. Requires concurrent enrollment in another art course. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Art 100

Introduction to Art Concepts

Unit(s): 3.0

Class Hours: 48 Lecture total.

A study of the visual arts in relation to both personal and cultural expressions. Fundamentals of visual organization, color theory, terminology, historical art movements, and concepts will be studied. Required for art majors.

Art 100H

Honors Introduction to Art Concepts

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above. Must be a state-indentured apprentice

Enriched exposure to a study of the visual arts in relation to personal and cultural expression with an emphasis on critical thinking and writing. Fundamentals of visual organization, color theory, terminology, historical art movements and concepts will be studied in a seminar format.

Art 101

Survey of Western Art History I: Prehistory through the Middle Ages

Unit(s): 3.0

Class Hours: 48 Lecture total.

The study of art from Prehistory through Middle Ages. Cultures and Civilizations are studied through visual imagery, lecture, class discussion, reading, research and field trips. Recommended sequence of courses: Art 100, Art 101, Art 102.

Art 102

Survey of Western Art History II: Renaissance through the Twentieth Century

Unit(s): 3.0

Class Hours: 48 Lecture total.

The study of Western art history from the Renaissance through the 20th century. Art movements and individual painters, sculptors, architects, and printmakers will be presented within the context of the social, political and intellectual histories of their respective periods. Required for art majors.

Art 103

African Art History

Unit(s): 3.0

Class Hours: 48 Lecture total.

History and appreciation of the arts of Africa and The Diaspora. Examines the continent of Africa within socio-political, aesthetic, and religious cultural contexts and the impact of African art on Western art in Europe and the Americas.

Art 104

Mexican and Chicano Art History

Unit(s): 3.0

Class Hours: 48 Lecture total.

The history and appreciation of Mexican and Chicano art from the pre-Columbian to the present, including the modern murals of Mexico and the United States.

Art 105

History of Modern Art

Unit(s): 3.0

Class Hours: 48 Lecture total.

History of painting, sculpture, architecture, prints, and applied arts from the late nineteenth century through the twentieth century. Covers the formal philosophic, spiritual, and historical background of art from Post Impressionism to Post Modernism. For general students and art majors.

Art 106

Asian Art History

Unit(s): 3.0

Class Hours: 48 Lecture total.

Historical survey of the visual arts of China, Japan, India, and Southeast Asia. Includes relationship of Far Eastern philosophy and culture to artistic achievement. Emphasizes works of art, in terms of style, technique, and content.

**Art 108****Contemporary Art History: Art Since Mid-Century**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A survey course exploring post World War II styles, trends, ideas, and innovations in architecture and the visual arts in Europe and North America.

Art 110**Two-Dimensional Design**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Introduction to the principles and elements of two-dimensional design. Provides instruction in the fundamentals of visual communication including color theory, composition, and expression. Application of concepts through creative projects. Required for art majors. A combination of Art 110 and 111 may be taken a maximum of four enrollments.

Art 111**Three-Dimensional Design**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Fundamentals of visual organization as applied to objects in-the-round. Visual space problems, structure, and dimensional terminology through creative projects in various media. Required for art majors. A combination of Art 110 and 111 may be taken a maximum of four enrollments.

Art 121A**Fundamentals of Typography**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 195 with a minimum grade of C.

Introduction to the use of type styles, appropriate type selection, and their characteristics as a means toward understanding design and communication through type solutions. Projects will explore current graphics industry practices and standards, including the use of digital technology and traditional hand skills. Art 122, 162, 191A, 192A recommended. A combination of Art 121A, 121B, 122, and 221 may be taken a maximum of four enrollments.

Art 121B**Advanced Typography**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 121A with a minimum grade of C.

This course provides continued study in typography and appropriate type selection as a means for solving complex graphic design problems, such as illustrative type or multiple page layout using traditional hand skills, digital technology and portfolio presentations. A combination of Art 121A, 121B, 122, and 221 may be taken a maximum of four enrollments.

Art 122**Graphic Design I**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 195 with a minimum grade of C.

Introduction to basic graphic design concepts, techniques, and practices resulting in the production of effective visual communications. Projects combine text with images using current industry standards and technology in print media and other design applications. Art 110, 162, 191A, and 192A recommended. A combination of Art 121A, 121B, 122, and 221 may be taken a maximum of four enrollments.

Art 124**Gallery Production**

Unit(s): 2.0

Class Hours: 96 Laboratory total.

Instruction in preparation and installation of art exhibits, gallery management, and working on a museum exhibition staff. Includes lectures, visits to artists' studios, and opportunities to work on art shows in two college galleries. Field trips include visits to local galleries and behind-the-scenes museum tours of collections and exhibition preparation areas. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Art 129**Graphic Design Concepts for the Web**

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

Prerequisite: Art 195 with a minimum grade of C.

Introduction to graphic design for Web. An overview of the elements and principles of art as they relate to Web design. Includes learning the technical requirements for colors, fonts, file optimization, effects, image resolution, and special effects. Includes creative Web design projects (Same as Computer Science 155). A combination of Art 129 and 164 may be taken a maximum of four enrollments.

Art 130**Introduction to Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Introductory course in expressive drawing exploring line, form, composition, and a variety of media. Drawing from man-made objects and natural forms. Required for art majors. A combination of Art 130, 230, and 233 may be taken a maximum of four enrollments.

Art 131**Beginning Life Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Introduction to drawing the human form by observing live models for studies in anatomy, structure, and composition. Exposure to traditional and contemporary figurative drawing while exploring media and methods. Required for art majors. Art 130 recommended. A combination of Art 131, 231, 232, and 243 may be taken a maximum of four enrollments.

Art 132A**Beginning Pastel Drawing and Painting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 130 with a minimum grade of C.

Development of pastel drawing and painting skills using various techniques. Strong emphasis on color theory, value, and composition. Preparation of grounds using various papers. Study of historical and contemporary pastel styles and techniques. A combination of Art 132A and 132B may be taken a maximum of four enrollments.

Art 132B**Intermediate Pastel Drawing and Painting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 132A with a minimum grade of C.

Intensive exploration of contemporary uses of pastels. Intermediate and advanced projects emphasizing pastel drawing/painting concepts in conjunction with other media. Emphasis on creative, personal expression, content, and style development. A combination of Art 132A and 132B may be taken a maximum of four enrollments.

Art 140A**Watercolor Painting**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Introduction to watercolor painting as a creative art form with emphasis on transparent watercolor techniques. Course includes principles of composition and color theory, materials selection, tools, terminology, and various watercolor techniques. Students develop basic watercolor skills while painting from simple forms and progressing to a variety of subjects. A combination of Art 140A, 140B, 143, and 240 may be taken a maximum of four enrollments.

**Art 140B****Watercolor Painting**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Art 140A with a minimum grade of C.

A continuing course in transparent watercolor techniques providing the opportunity to advance the creativity of those with basic skills in watercolor. Further study of formal elements and composition while painting from varied subject matter. Emphasis on refinement of methods and techniques for more expressive painting. May be repeated. A combination of Art 140A, 140B, 143, and 240 may be taken a maximum of four enrollments.

Art 141**Beginning Painting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Introduction to acrylic and/or water soluble oil painting as a creative art form with exposure to historical, traditional and contemporary painting styles. Course includes principles of composition and color theory, materials selection, tools, terminology, and techniques. Students develop basic skills painting a variety of subjects. Required for art majors. Art 110 and 130 recommended. A combination of Art 141, 241, and 242 may be taken a maximum of four enrollments.

Art 143**Landscape Watercolor**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Art 140A with a minimum grade of C.

Intermediate course in transparent watercolor using the Southern California landscape as studio and subject for paintings. Explores a variety of techniques, papers, brushes, and pigments. Further study of compositional/conceptual elements leading to development of individual expression. A combination of Art 140A, 140B, 143, and 240 may be taken a maximum of four enrollments.

Art 150**Primitive Pottery Techniques**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Primitive techniques in pottery construction and firing. Emphasizes handbuilt forms. Students will construct tools. Sawdust, raku, dung, low temperature salt, and other pit firings will be utilized.

Art 151**Ceramics-Introductory Level**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Exploration of clay as a structural and creative material. Experiences include throwing on the potter's wheel and hand building. Instruction includes surface design, glazing, and experience in utilitarian forms. Students provide clay and tools. A combination of Art 151, 152, and 153 may be taken a maximum of four enrollments.

Art 152**Ceramics-Intermediate Throwing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

Further study of wheel thrown techniques with an emphasis on functional, utilitarian forms. Students provide own clay and tools. A combination of Art 151, 152, and 153 may be taken a maximum of four enrollments.

Art 153**Ceramics-Intermediate Handbuilding**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

Further study of handbuilding techniques with emphasis on one-of-a-kind sculptural forms. Non-traditional alternatives to glazes are explored. Students provide own clay and tools. A combination of Art 151, 152, and 153 may be taken a maximum of four enrollments.

Art 154**Ceramics Summer Workshop**

Unit(s): 3.0

Class Hours: 24 Lecture, 72 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

For intermediate/advanced students interested in a self-guided study/exploration in the ceramic medium. Emphasizes technical aspects and artistic imageries. Invited artists will provide supplementary guidance. Students provide own clay and tools.

Art 155**Plaster Mold Making**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

Basic aspects of plaster of Paris mold making; production of molds from original models in order to reproduce those models; alteration of those plaster mold castings into more artistic, personalized imagery. A combination of Art 155 and 157 may be taken a maximum of four enrollments.

Art 156**Clay Calculation: an Approach in Color Study**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

Basic uses of color clays as a decorative tool in making pottery forms. Techniques of sprigging, incising, inlay, and lamination are utilized with wheel-thrown, handbuilding, and plaster mold construction methods. A combination of Art 156, 159A, and 159B may be taken a maximum of four enrollments.

Art 157**Ceramics-Raku and Saggar Firing Techniques**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

Use of the potter's wheel and/or handbuilding techniques as methods for constructing vessel forms. Includes a study of surface coloration from natural organic materials. Several firing techniques will be utilized. A combination of Art 155 and 157 may be taken a maximum of four enrollments.

Art 158**Ceramic Mural Project**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

Design, construction and installation of a tile mural. Includes various techniques of surface textures, glaze colors, spatial compositions and technical processes of installation. Students provide own clay and tools. Projects vary each semester.

Art 159A**Ceramic Color Decoration: Low Temperature**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 151 with a minimum grade of C.

Exploration of surface color decoration on ceramic vessels. Emphasizes glazing techniques (low temperatures only) such as underglazes, lusters, engobes, sgraffito, decals, slip trailing, wax resist, burnishing and ceramic pencils/crayons. A combination of Art 156, 159A, and 159B may be taken a maximum of four enrollments.

**Art 159B****Ceramic Color Decoration: High Temperature**
Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 151 with a minimum grade of C.

Exploration of surface color decoration on ceramic vessels within the realm of high stoneware temperatures. Emphasizes glazing techniques such as marbling, feathering, mishima, brush decoration, stencils, stamp printing, spraying, slip painting, glaze trailing, wax resist, and terra sigallata. A combination of Art 156, 159A, and 159B may be taken a maximum of four enrollments.

Art 162**Digital Design with Photoshop-I**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 195 with a minimum grade of C or portfolio approval.

An introduction to using Photoshop for Web, print, CD, and 3D. Instruction in capturing, manipulating, and outputting images. Focus on basic skills and techniques for editing and enhancing photographs, manipulating scanned images and creating digital graphics. Application of technology skills using design to create digital composites. A combination of Art 191A, 192A, and 162 may be taken a maximum of four enrollments.

Art 164**Web Design with Flash**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 129 or 195 or 229 or Computer Science 155 or 156 with a minimum grade of C or portfolio approval.

Introduction to web design using digital media tools; graphics, illustrations, text, sound, motion, using Flash and other software programs for the Web. Students research how Flash is used in business presentations, advertising, entertainment, and self-promotion. Overview of elements and principles of design and motion. May be repeated. A combination of Art 129 and 164 may be taken a maximum of four enrollments.

Art 165**3D Character Animation**

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Art 197A or TV/Video Communications 185 with a minimum grade of C.

Instruction in theories and practice of character animation using 3D software. May be repeated. A combination of Art 165, 167, and 185 may be taken a maximum of four enrollments.

Art 166**Creating Realism with Textures and Lights**

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Art 196A or TV/Video Communications 181 with a minimum grade of C or Art 162 with a minimum grade of C and portfolio review.

Instruction in methods used to achieve realistic looking surface textures and lighting effects in digital 3D scenes for film and video games using Photoshop and 3D Studio Max. May be repeated. A combination of Art 166 and 180 may be taken a maximum of four enrollments.

Art 167**3D Commercial Applications**

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.
Prerequisite: Art 197A or TV/Video Communications 185 with a minimum grade of C.

Capstone course focusing on developing 3D artwork for specific commercial purposes and formats. Includes field trips and developing a web-based portfolio. May be repeated. A combination of Art 165, 167, and 185 may be taken a maximum of four enrollments.

Art 168**Digital Media: Portfolio and Business Strategies**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.
Prerequisite: Art 122 with a minimum grade of C or portfolio review.

Creation of a digital portfolio, career planning, and business operations for employment or continued education. Students will identify job markets, define career goals, develop a resume, create a portfolio for print and/or Web, and develop interviewing skills. Includes overview of business requirements for working with customers. Art 162, 191A, 192A recommended.

Art 180**Video Game and Interactive Media Art**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.
Prerequisite: Art 196A with a minimum grade of C.

Hands-on overview of art production for games and interactive media. Focus on how to use digital 3D art for creating environments for games. Instruction in industry standard graphics software and techniques in art production from concept to finished art assets for games. May be repeated. A combination of Art 166 and 180 may be taken a maximum of four enrollments.

Art 182**Introduction to Jewelry**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Basic instruction in jewelry fabrication including silver soldering, direct casting, and forging, patinas, cold connection, and piercing. May be repeated. A combination of Art 182, 284, and 285 may be taken a maximum of four enrollments.

Art 185**Fundamentals of Cartooning and Storyboarding**

Unit(s): 3.0

Class Hours: 24 Lecture, 48 Laboratory total.

Introduction to basic cartooning, character development, and story boarding as used in television, film, and electronic games. Includes sketching, inking, the development of characters, storyboard development and an overview of cartoon and storyboard history. A combination of Art 165, 167, and 185 may be taken a maximum of four enrollments.

Art 191A**Digital Publishing with Indesign**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 195 with a minimum grade of C.

An introduction to digital publishing and page layouts, including experience in design and development of single and multiple page documents. Also includes advanced technique in complex documents and web-ready pages using InDesign software. A combination of Art 191A, 192A, and 162 may be taken a maximum of four enrollments.

Art 192A**Digital Illustration with Illustrator**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 195 with a minimum grade of C.

An introduction to design and illustration techniques using Adobe Illustrator software on the Macintosh. Instruction in commonly used professional industry topics and techniques for print, animation and the Web. A combination of Art 191A, 192A, and 162 may be taken a maximum of four enrollments.

Art 195**Introduction to Digital Media Arts**

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

Introduction to digital media arts for artists, photographers, Web designers, programmers, and animation artists. Includes an overview of Photoshop, Illustrator, InDesign, digital graphics terminology, careers, market applications, and design components. Work in computer lab with scanners, printers, CD ROM's and the Web.

**Art 196A****3D Modeling Fundamentals**

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Art 195 with a minimum grade of C.

Instruction in digital 3D modeling using 3D Studio Max from introductory to high-intermediate level. Course includes orientation to the software interface, lectures and tutorials on how to build objects using primitives, modifiers, polygonal, and Spline modeling methods. Emphasis on practical application in games, architecture, and film. A combination of Art 196A and 197A may be taken a maximum of four enrollments.

Art 197A**3D Animation Fundamentals**

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Art 196A with a minimum grade of C.

Instruction in using 3D animation software for the purpose of linear storytelling. Emphasis on the incorporation of the classic principles of animation, and in learning the core components of the software that are necessary for effective visual communication. A combination of Art 196A and 197A may be taken a maximum of four enrollments.

Art 221**Graphic Design II**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 122 with a minimum grade of C.

Intermediate level study of concepts in graphic design to assist the artist/designer in formulating aesthetic and purposeful visual communications from roughs through finished art. Creative development of solutions to problems in common print media and other design applications. Explores the combination of images and text, using hand skills, digital technology and current graphics industry standards and practices. A combination of Art 121A, 121B, 122, and 221 may be taken a maximum of four enrollments.

Art 230**Intermediate Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 130 with a minimum grade of C.

Continued study in drawing with additional opportunities in graphic expression. Further exploration of media, including colored pencils, oil pastel, charcoal, and mixed media. Continuation of composition concepts with emphasis on individual expression. A combination of Art 130, 230, and 233 may be taken a maximum of four enrollments.

Art 231**Intermediate Life Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 131 with a minimum grade of C.

Continued experience in drawing from the live model with opportunity for development of self-expression. Further exploration of media and techniques. A combination of Art 131, 231, 232, and 243 may be taken a maximum of four enrollments.

Art 232**Advanced Life Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 231 with a minimum grade of C.

Intensive study of the figure with further development of drawing skills, composition, technique, and media utilizing the live model. Projects vary each semester. A combination of Art 131, 231, 232, and 243 may be taken a maximum of four enrollments.

Art 233**Advanced Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 230 with a minimum grade of C or portfolio review.

To further develop individual graphic expression, students will plan a series of drawing problems to be executed during the semester under the instructor's direction. Exploration of new materials and techniques. Field trips to artists' studios and museums. A combination of Art 130, 230, and 233 may be taken a maximum of four enrollments.

Art 240**Intermediate Watercolor**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Art 140B with a minimum grade of C.

An intermediate level course providing for continuing development of watercolor painting skills. Further refinement of media, technique and expression of style through more advanced painting projects. Subject matter content includes still life, landscape, figurative studies, abstraction, and individual creative expression. Traditional and non-traditional approaches. A combination of Art 140A, 140B, 143, and 240 may be taken a maximum of four enrollments.

Art 241**Intermediate Painting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 141 with a minimum grade of C.

An intermediate level class designed to promote and advance the creative development of those with basic skills in water-soluble oil and/or acrylic painting. Opportunity for further study of historical and contemporary references and to increase experience with new media, methods, and techniques. Emphasis on artistic expression and individual creative problems. A combination of Art 141, 241, and 242 may be taken a maximum of four enrollments.

Art 242**Advanced Painting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 241 with a minimum grade of C.

An advanced level studio course providing opportunity for further refinement of painting skills with increasing exposure to contemporary styles. Emphasis on research and individual creative problems in painting. Exploration into a personal mode of expression through development of media, technique, and style. Classroom studio use of oils limited to water-soluble oil paint only. A combination of Art 141, 241, and 242 may be taken a maximum of four enrollments.

Art 243**Portrait and Life Painting**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Art 131 or Art 141 with a minimum grade of C.

Painting of the human form with study of portraiture and anatomy. Compositions in representation of the life model through interpretive studies in watercolor, pastels, water soluble oil, and acrylic. Study of traditional and contemporary methods and directions. A combination of Art 131, 231, 232, and 243 may be taken a maximum of four enrollments.

Art 251**Ceramics-Advanced Throwing and Handbuilding**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Art 152 with a minimum grade of C.

Study of thrown and handbuilt sculptural forms. Exploration of decoration and glaze techniques and incorporation of non-traditional materials such as metal/wood/plastics/paints.

**Art 252****Ceramics-Advanced Study Process in Ceramics With Non-Traditional Media**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 152 or Art 153 with a minimum grade of C.

An advanced study in the ceramic process as it relates to a non-clay media approach. A sculptural form study with non-traditional materials as surface enhancements.

Art 253**Electric Kiln Ceramics**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 151 with a minimum grade of C.

Provides student potters working studio production knowledge of the uses of an oxidizing electric kiln. Emphasizes types of electric kilns, spectrum of glaze formulas, and safety procedures of firing.

Art 282**Jewelry II**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 182 with a minimum grade of C.

Continued instruction in the making of jewelry by means of fabrication, including techniques in silver soldering, die forming, etching, tool making, and hinge mechanisms. A combination of Art 282 and 283 may be taken a maximum of four enrollments.

Art 283**Jewelry III**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
Prerequisite: Art 282 with a minimum grade of C.

Advanced instruction in the making of jewelry by means of complex fabrication. Explores various traditional metal working techniques including mokume, inlay, complex soldering and raising. Gives opportunity for intensive work on projects of individual interest. May be repeated. A combination of Art 282 and 283 may be taken a maximum of four enrollments.

Art 284**Introduction to Stone Setting-Jewelry**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Course is an introduction to basic jewelry hand skills, including sawing, filing, soldering, and some fabrication. Emphasis is on cabochon and tube stone setting. Students supply their own stones and metal. A combination of Art 182, 284, and 285 may be taken a maximum of four enrollments.

Art 285**Introduction to Enameling-Jewelry**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

An introduction to basic jewelry enameling, including some sawing, filing, and metal forming fabrication with emphasis on color and attention to two dimensional design. Emphasis is on enameling on sheet metal and some cloisonne. Students supply their own enamel and metal. A combination of Art 182, 284, and 285 may be taken a maximum of four enrollments.

Art 296**Computer Graphics Production**

Unit(s): 1.5

Class Hours: 8 Lecture, 48 Laboratory total.

Prerequisite: Art 196A or TV/Video Communications 181 with a minimum grade of C.

Projects focusing on 3D modeling and animation for video games, film/TV, advertising, and marketing. May be repeated.

Art 298**Art Practicum**

Unit(s): 1.0 - 2.5

Class Hours: 0.50 Lecture, 20 Laboratory total.

Prerequisite: Portfolio review and previous or concurrent enrollment in a 200 level art course.

Directed study at selected locations providing workplace experience such as: gallery assistant, artist's apprentice, docent trainee, graphic design apprentice, etc. Before placement, skills assessed to match abilities with project needs. Experience differs each semester. Grade: Pass/No Pass only. Open Entry/Open Exit.

ASIAN AMERICAN STUDIES (ASIA)**Asian American Studies 101****Introduction to Asian American Studies**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An interdisciplinary survey of Asian American communities through examination of the various immigration histories, cultural backgrounds, images in literature and art, social movements, and contemporary issues.

ASTRONOMY (ASTR)**Astronomy 109****Introduction to the Solar System**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Surveys history of astronomy, recent research and observations of the planets, moons, and other solar system objects. Exploration of light and gravity to understand formation, properties, and motion of Solar System objects.

Astronomy 110**Introduction to Stars and Galaxies**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Surveys the development of astronomy, current research and observations of stars, galaxies and large-scaled structures in the universe. Exploration of light and gravity to understand the properties and evolution of stars, neutron stars, black holes, galaxies and the universe structures and changes.

Astronomy 110H**Honors Introduction to Stars and Galaxies**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: High school or college GPA of 3.0 or above.

Surveys the development of astronomy, current research and observations of stars, galaxies and large-scaled structures in the universe. Exploration of light and gravity to understand the properties and evolution of stars, neutron stars, black holes, galaxies and the universe structures and changes.

Astronomy 140**Astronomy Laboratory**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Astronomy 109 or 110 or 110H with a minimum grade of C or concurrent enrollment.

Utilizes experimental techniques to explore and comprehend properties and motions of celestial objects. Basic naked-eye, binocular and small telescope observing techniques will be introduced. Field trips to local planetaria and dark sky locations may be included.

AUTOMOTIVE TECHNOLOGY (AUTO)**Automotive Technology 002****Essentials**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Intended for automotive majors. Introduction to basic practical applications of technology required for advanced-level courses. Theory, parts nomenclature, and description of systems are emphasized.

Automotive Technology 006**Automotive Maintenance**

Unit(s): 4.0

Class Hours: 48 Lecture, 64 Laboratory total.

Introduces basic maintenance procedures in the areas of engines, drive lines, and electrical systems. This course is recommended for consumers and students interested in entering the automotive repair field. Students furnish hand tools and safety equipment.

**Automotive Technology 008****Oxyacetylene-Arc Welding**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Technical knowledge and basic skills needed for occupational oxyacetylene and arc welding processes and applications. Students must furnish safety equipment (same as Diesel 008 and Welding 008).

Automotive Technology 022**Electronics Fundamentals**

Unit(s): 5.0

Class Hours: 64 Lecture, 64 Laboratory total.

Introduction to the basic operating principles of electrical and electronic devices used in motor vehicles. Suggested preparation: Automotive Technology 002 or 006 (same as Diesel 022).

Automotive Technology 024**Electrical Systems**

Unit(s): 5.0

Class Hours: 64 Lecture, 64 Laboratory total.

Theory, operation, diagnosis and maintenance of the following systems and components: lighting, instrument, and accessory circuits. Students furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006, and 022.

Automotive Technology 025**A-6 Alternative Course - Electrical Systems**

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course is a Bureau of Automotive Repair certified course. It is designed to prepare the student to pass the Alternative A-6 Electrical Systems exam. Grade: Pass/No Pass only.

Automotive Technology 032**Tune-Up**

Unit(s): 5.0

Class Hours: 64 Lecture, 64 Laboratory total.

Tune-up procedures, including fuel, ignition, oscilloscope, emission control, and computer systems. Students furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006.

Automotive Technology 033**A-8 Alternative Course - Engine Performance**

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course is a Bureau of Automotive Repair certified course. It is designed to prepare the student to pass the Alternative A-8 Engine Performance exam. Grade: Pass/No Pass only.

Automotive Technology 043**Automatic Transmission Service**

Unit(s): 4.0

Class Hours: 32 Lecture, 96 Laboratory total.

Theory, operation, diagnosis, and service procedures of automatic transmissions. Students furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006.

Automotive Technology 044**Power Train Service**

Unit(s): 4.0

Class Hours: 32 Lecture, 96 Laboratory total.

Theory, operation, diagnosis, and service of manual transmissions, transaxles, clutches, drive shafts, and differentials.

This course also covers minor service of automatic transmissions. Students furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006.

Automotive Technology 053**Brakes**

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

Theory of operation, diagnosis and service of drum, disc and anti-lock brake systems. Students must furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006.

Automotive Technology 054**Front Ends**

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

Designed to instruct the student in the operation and service of the following: steering, suspension systems, and wheel alignment procedures. Suggested preparation: Automotive Technology 002 or 006.

Automotive Technology 062**Air Conditioning and Heating**

Unit(s): 3.0

Class Hours: 36 Lecture, 60 Laboratory total.

Operation, testing, and servicing of air conditioning and heating systems. Students must furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006 (same as Diesel 062).

Automotive Technology 072**General Automotive Engine Service**

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

The course deals with the diagnosis and service of modern automotive engines and accessories. Students furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006 (may be taken concurrently).

Automotive Technology 076**Engine Repair**

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

This course deals with teardown, assembly, and repair of modern automotive engines. Students furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006 (may be taken concurrently).

Automotive Technology 080**Computer Controls**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Theory, component function, and diagnosis of automotive computer controlled systems. Examples include GM, Ford, and import OBD-2 systems. Suggested preparation: Automotive Technology 002 or 006 and 032 or one year tune-up related trade experience.

Automotive Technology 081**Fuel Injection Systems**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Covers the theory, operation, and diagnosis of import and domestic gasoline fuel injection systems currently used with emphasis on those systems used on domestic and import vehicles. Suggested preparation: Automotive Technology 002 or 006 and 032 or one year tune-up related trade experience.

Automotive Technology 082**Automotive Computer Sensors**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course covers the function and testing of computerized engine sensors used on modern vehicles. The use of meters and test equipment will be emphasized. Suggested preparation: Automotive Technology 022, 032, or one year trade experience in automotive tune-up.

Automotive Technology 083**Automotive Lab Scopes**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course covers the use of automotive lab scopes for analyzing modern vehicles. Test procedures will be emphasized. Suggested preparation: Automotive Technology 002 or 006 and 032 or one year tune-up related trade experience. The use of San Tools will also be covered.

Automotive Technology 084**OBD-II**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course will present an overview of the OBD-II (On Board Diagnostics) system used on modern automobiles. Terminology, codes, monitors, and scan-tool use will be emphasized. Suggested preparation: Automotive Technology 002 or 006.

Automotive Technology 085**Basic Clean Air Car Course**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Bureau of Automotive Repair recognized Basic Clean Air Car Course. This course fulfills one of the required courses the student needs to take the State Smog Technician Exam. Grade: Pass/No Pass only. Open Entry/Open Exit.



Automotive Technology 086
Advanced Clean Air Car Course
 Unit(s): 2.0

Class Hours: 32 Lecture total.

This is a Bureau of Automotive Repair certified course. It is designed to provide advanced diagnostic training for smog licensed technicians. This course is required before taking the Smog License Renewal or initial smog exam. Suggested preparation: Automotive Technology 032 or a California Smog License. Grade: Pass/No Pass only.

Automotive Technology 087
L-1 Alternative Course: Advanced Engine Performance
 Unit(s): 2.0

Class Hours: 32 Lecture total.

This course is a Bureau of Automotive Repair certified course. It is designed to prepare the student to pass the L-1 Alternative Course Exam. Grade: Pass/No Pass only.

BANKING (BANK)

Banking 010
Teller Training for Financial Institutions
 Unit(s): 2.0

Class Hours: 32 Lecture total.

Course provides prospective bank employees with a broad overview of financial institutions and basic knowledge of teller techniques including bank transactions and customer service.

BIOLOGY (BIOL)

Biology 109
Fundamentals of Biology
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Principles of biology stressing the relationship of all organisms from anatomical, physiological, and ecological points of view. Includes cell machinery, genetics, reproduction, embryology, animal behavior, botany, ecology, evolution, and human physiology. Concurrent enrollment in Biology 109L recommended. Designed for non-biology majors.

Biology 109H
Honors Fundamentals of Biology
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Traditional Biology, enriched by extensive instructor-prepared study guides for each subject area of curriculum. Additional enhancement by outside reading suggestions and optional student reports. Class participation and discussion is strongly encouraged, as are questions on current reports and news in the popular media and scientific sources. Information will be expanded by reference to research observations and by appropriate references to classical and current literature. Emphasis is on analysis of pertinent topics using critical reading and interpretation skills. Concurrent enrollment in Biology 109L is recommended. Designed for non-biology majors.

Biology 109L
Fundamentals of Biology Laboratory
 Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Biology 109/109H with a minimum grade of C or concurrent enrollment.

Laboratory experiments that illustrate important biological concepts at all levels of organization, from molecules and cells, to organisms, populations, communities and ecosystems. Content complements Biology 109/109H lecture material. Fieldtrip required.

Biology 111
Marine Biology
 Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

This course covers basic concepts of marine ecosystems including oceanographic principles, ecology, and a survey of marine habitats and diversity of marine organisms.

Biology 115
Concepts in Biology for Educators
 Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

An investigation in the basic principles of Biology and Science with content appropriate for future multiple-subject teachers and secondary through high school. The course material is presented within the context of the human experience and includes cell biology, physiology, genetics, evolution, ecology, animal behavior, and the interaction of humans with the environment. The course is taught from an inquiry-based strategy using active learning. May be repeated.

Biology 127
Ecology
 Unit(s): 1.0

Class Hours: 16 Lecture total.

Introduction to the basic principles of ecology. Study of ecosystems, biomes, and the relationships of plants and animals in the natural world. This is a field study course and includes overnight camping.

Biology 128
Natural History of the California Coast
 Unit(s): 1.0

Class Hours: 16 Lecture total.

An ecological study of plant and animal life of the southern and central California coast. This is a field study course and includes overnight camping.

Biology 129
Ecology of Southern California
 Unit(s): 1.0

Class Hours: 16 Lecture total.

Identification and study of the plants and animals of the ocean, mountain and desert regions of Southern California with emphasis on the organisms' relationship to their environment. This is a field study course and includes overnight camping.

Biology 131
Natural History of the Southwest
 Unit(s): 3.0

Class Hours: 48 Lecture total.

An ecological study of mountain, canyon, and desert ecosystems of the Southwestern United States. Animal and plant identification, geology, and environmental problems will be emphasized. This is a field study course and includes overnight camping.

Biology 132
Natural History of Death Valley
 Unit(s): 1.0

Class Hours: 16 Lecture total.

Natural history of Death Valley emphasizing the biology of the plants and animals, their ecology, adaptations and evolutionary history, as well as the history of environmental change and human activities. This is a field study course and includes overnight camping.

Biology 133
Desert Biology
 Unit(s): 1.0

Class Hours: 16 Lecture total.

Study of desert organisms, their adaptations to arid conditions, their evolution, identification and ecology, and the impact of human activities on desert organisms, communities, and ecosystems. This is a field study course and includes overnight camping.

Biology 134
Natural History of the Sonoran/Colorado Desert
 Unit(s): 1.0

Class Hours: 16 Lecture total.

Ecological study of the plants and animals of the Sonoran/Colorado Desert area of Southern California. This is a field study course and includes overnight camping.

**Biology 135****Natural History of the Mojave Desert**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Ecological relationships of Mojave Desert plant and animal life will be observed and studied. This is a field study course and includes overnight camping.

Biology 139**Health Microbiology**

Unit(s): 4.0

Class Hours: 48 Lecture, 64 Laboratory total.

Presents practical and theoretical aspects of medical microbiology to meet the needs of those in allied health professions. Provides basic knowledge of the microbial world by covering diversity, structure, metabolic and genetic characteristics, cultivation and control.

Emphasis is placed on human-microbe interactions especially infectious diseases. Laboratory deals with identification, growth, and control of microorganisms. Prior completion of Biology 109 or 149 recommended.

Biology 149**Human Anatomy and Physiology**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Human anatomy and physiology stressing the interrelationships between normal structure and function. Designed for students in the allied health sciences, particularly those desiring the two-year RN degree. May not meet requirements for physical education or BSN majors.

Biology 169**Natural History of the Sierra Nevadas**

Unit(s): 1.0 - 3.0

Class Hours: 48 Lecture total.

A field study of the ecology, geology and history of the Sierra Nevada mountains. Animal and plant studies, environmental problems and wilderness preservation will be emphasized. This is a field study course and includes overnight camping.

Biology 177**Human Genetics**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course in human genetics which explores basic principles, patterns of inheritance, gene structure, function and regulation, current advances in genetics and gene technology, as well as social and ethical issues in contemporary genetics.

Biology 190**Introduction to Biotechnology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course will define the field of biotechnology and provide students with a brief history of its development, an understanding of the foundational molecular biology principles relating to its modern industrial practices and applications, create an awareness of bioethics, and introduce students to the variety of jobs available in this field. This course will allow students to acquire the basic foundational knowledge and skills for the biotechnology field. Industry practices and ethics will be emphasized.

Biology 191**Biotech A: Basic Skills**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Introduction to the fundamental skills necessary for any biotechnology laboratory. Skills include maintenance of an industry standard notebook, preparation and sterilization of solutions, reagents and media, utilization of good aseptic technique, proper use and maintenance of laboratory equipment, adherence to quality control protocols, and lab safety regulations.

Biology 192**Biotech B: Proteins**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Biology 191 with a minimum grade of C.

Fundamental skills in applied biotechnology necessary for any biotechnology laboratory but particularly focused on downstream manufacturing processes in biomanufacturing. Skills include maintenance of an industry standard notebook, preparation and sterilization of solutions, reagents and media; utilization of good aseptic technique; proper use and maintenance of laboratory equipment; adherence to quality control protocols and lab safety regulations; in vitro translation, large scale expression, purification, modification, western blot analysis, ELISA, antibody tagging, and fluorescent microscopy. Compliance with industry standards and regulation will be incorporated in course procedures.

Biology 193**Biotech C: Nucleic Acids**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Biology 191 with a minimum grade of C.

This course introduces the fundamental skills in applied biotechnology focusing on the upstream research and development process. Skills include maintenance of an industry standard notebook; preparation and sterilization of solutions, reagents and media; utilization of good aseptic technique; proper use and maintenance of laboratory equipment; adherence to quality control protocols and lab safety regulations; DNA/RNA extraction and purification, bioinformatics, polymerase chain reaction, electrophoresis, DNA sequencing, recombinant DNA technology, DNA cloning, fluorescence in situ hybridization, and Southern blot analysis, and in vitro transcription. Compliance with industry standards and regulations will be incorporated into course procedures.

Biology 194**Quality and Regulatory Compliance in Biosciences**

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course will cover quality assurance and regulatory compliance for the bioscience industries. Topics will span quality control and Federal Drug Administration (FDA) regulations for the biotechnology, biopharmaceutical, biomedical device and food industries. Theories and application of quality assurance and quality control will be presented and several different quality systems will be discussed such as cGMP (Good Manufacturing Practices), ISO9000 (International Standards Organization), Six Sigma and Lean.

Biology 195**Biotech: QC Microbiology**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Biology 229 with a minimum grade of C.

This course will cover the skills necessary to work in a regulated quality control microbiology laboratory.

Biology 197**STEM Internship/Work Experience**

Unit(s): 1.0 - 16.0

Class Hours: 60-1200 Laboratory total.

Prerequisite: Biology 193 and Biology 194 with a minimum grade of C.

Supervised paid or volunteer experience in student's major including new or expanded responsibilities. 75 hours of paid work or 60 hours of unpaid work equals one unit. Course may be taken 4 times for a maximum of 16 units of occupational cooperative work experience credit. Grade: Pass/No Pass only.



Biology 200
Environment of Man

Unit(s): 3.0

Class Hours: 48 Lecture total.

A biological and physical science introduction to environmental problems such as energy, resources, pollution, land use, population, and food including economic and political factors. A natural science elective (Same as Environmental Studies 200 and Science 200).

Biology 211
Cellular and Molecular Biology

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Mathematics 080 or 081 with a minimum grade of C.

An investigation into the molecular and cellular basis of life, including the evolution of cells, cell structure and function, energy and information flow, cellular reproduction, genetics, and the molecular basis of inheritance. Required of majors in biology, medicine, forestry, and agriculture. This course is a prerequisite for Biology 212 and Biology 214. Prior completion of Chemistry 119 or 209 or equivalent recommended.

Biology 212
Animal Diversity and Ecology

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Biology 211 with a minimum grade of C.

A study of ecological principles and relationships between animal diversity and ecosystems. Habitat, populations, ecological interactions, and environmental influences are stressed while surveying animal diversity and addressing structure, function, behavior, and adaptation of major taxonomic groups. Required of majors in biology, medicine, forestry and agriculture. Field trips required.

Biology 214
Plant Diversity and Evolution

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Biology 211 with a minimum grade of C.

Principles and processes of evolution leading to biodiversity. Survey of the organisms, viruses, prokaryotes, fungi, algae, and plants with emphasis on evolutionary adaptations of the anatomy, physiology, and life cycles of these organisms. Field trips required.

Biology 217
Pathophysiology

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Biology 149, 239 or 249 with a minimum grade of C.

Covers dynamic aspects of human disease. Links sciences of anatomy, physiology, and biochemistry with their application to clinical practice for health professionals.

Biology 229
General Microbiology

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Biology 109/109H and 109L, or 139, or 149, or 211, or 239, or 249, or Chemistry 119 or Chemistry 209 with a minimum grade of C.

Introduction to microorganisms, their classification, structure, biochemistry, growth, control, and interactions with other organisms and the environment. Designed for biology, preprofessional, and prenursing (BSN) majors.

Biology 239
General Human Anatomy

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Structure of the human body. Systems, organs, and tissues are studied from human skeletons, models, charts, slides and CD-ROM programs. Laboratory includes the dissection of a cat, and periodic demonstrations of a prosected cadaver as available.

Biology 249
Human Physiology

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Biology 239 or similar Human Anatomy course with a minimum grade of C.

Microscopic, macroscopic, and dynamic view of the human physiological processes. The lecture portion includes a thorough consideration of both "cell and systems" physiology. Laboratory work includes the use of techniques used in basic research, an introduction to the use of standard medical equipment, and the performance of medical laboratory tests. Non-invasive experiments are performed on students enrolled in the class.

Biology 259
Environmental Biology

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Introduction to Environmental Biology. Includes study of ecosystems, population dynamics, classification, diversity of plant and animal species, effects of pollutants at both the cellular and organismal levels, and principles of ecology (Same as Environmental Studies 259).

Biology 290
Biochemistry and Molecular Biology

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Biology 211 and Chemistry 209 with a minimum grade of C.

Introduction to biochemistry and molecular biology. Included are discussions of biological macromolecules, energy production, metabolic pathways and regulation, genetic code, genomics, DNA replication, transcription and RNA processing, translation, and gene regulation. Laboratory activities will include use of visible and UV spectroscopy, chromatography, cell fractionation, ultracentrifugation, protein purification, electrophoresis, and recombinant DNA methods. This course is designed for biology majors, health pre-professionals, and biotechnology majors.

BLACK STUDIES (BLST)

Black Studies 101
Introduction to Black Studies

Unit(s): 3.0

Class Hours: 48 Lecture total.

A course designed to present a foundation in African American history for subsequent course work leading to a degree in Black Studies and/or Ethnic Studies. This course will highlight the significant contributions of African Americans to the history of America in the areas of history, literature, arts, science, and technology.

BUSINESS (BUS)

Business 080
Business Mathematics

Unit(s): 3.0

Class Hours: 48 Lecture total.

Business math applications including review of fractions, decimals, percents, banking, discounts, markups, payroll, interest calculation, installment buying, mortgages, depreciation, taxes, insurance, stocks, bonds and mutual funds.

Business 100
Fundamentals of Business

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to the basic fundamentals of business. A survey of marketing, management, production, accounting, finance, and economics and how they interrelate in the business environment.

Business 101
Business Law

Unit(s): 3.0

Class Hours: 48 Lecture total.

Fundamental legal principles pertaining to business transactions. Introduction to the legal process. Topics include sources of law and ethics, contracts, torts, agency, criminal law, business organizations, and judicial and administrative processes.

**Business 103****Cooperative Work Experience-Occupational Education-Occupational**

Unit(s): 1.0 - 16.0

Class Hours: 60-1200 Lecture total.

Supervised paid or volunteer experience in student's major including new or expanded responsibilities. 75 hours of paid work or 60 hours of un-paid work equals one unit. Course may be taken 4 times for a maximum of 16 units of occupational cooperative work experience credit. Grade: Pass/No Pass only. Open Entry/Open Exit.

Business 104**Cooperative Work Experience-General Education-General**

Unit(s): 1.0 - 16.0

Class Hours: 1200 Lecture total.

Supervised paid or volunteer experience not related to student's major including new or expanded responsibilities. 75 hours of paid work or 60 hours of un-paid work equals one unit. Course may be taken 4 times for a maximum of 16 units of occupational cooperative work experience credit. Grade: Pass/No Pass only. Open Entry/Open Exit.

Business 105**Legal Environment of Business**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Fundamental legal principles pertaining to business transactions. Introduction to the law as an instrument of social and political control in society. Topics include sources of law and ethics, contracts, torts, agency, judicial and administrative processes, employment law, forms of business organizations, and domestic and international governmental regulations.

Business 106**Culture and International Business-Kiss, Bow Or Shake Hands**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to different cultures and their effects on international business. Analysis of cross-cultural attitudes towards management, status, rules, relationships, motivating employees, and negotiation.

Business 110**Export Pricing, Quotations and Terms of Trade**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn how to respond to trade inquiries. Learn international trade terms of sale, international pricing, and supply chain management. Learn how to calculate landed costs and export pricing.

Business 111**International Business Documentation-Beginning**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn how to create and issue international documents used in selling or buying products. Includes the creation and use of actual documents used in international business.

Business 113**International Transportation**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn how to ship products internationally and develop a transportation strategy. Includes transportation terminology, the role of the freight forwarder, transportation documentation, freight cost calculations, major ports of the world, and distribution issues.

Business 114**International Documentation and Supply Chain Management**

Unit(s): 1.0

Class Hours: 16 Lecture total.

International documents for product inspection, health/agricultural registrations, and hazardous materials shipments. Utilizes actual documents, software, and resources necessary to effectively complete documentation. Introduces the need for supply chain management and inventory control.

Business 120**Principles of Management**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Principles, methods, and procedures essential to the successful management of human and financial resources. Planning, decision making, staffing, directing, motivating, leading, communicating, controlling and the application of managerial skills (Same as Management 120).

Business 121**Human Relations and Organizational Behavior**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The role of the manager and management's relationship to employees. Includes the application of motivational theories, communications, leadership, and organizational structure (same as Management 121).

Business 125**Introduction to International Business**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A survey course previewing international marketing, finance, law and logistics. Includes how a company decides to go global and how products are made, transported and sold around the world.

Business 127**Introduction to E-Commerce**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Electronic commerce from a managerial perspective focusing on the retailing, business-to-business and service industries. Topics include: E-commerce infrastructure, intranets and extranets, electronic payment systems, marketing research, advertising, E-commerce strategies, and privacy issues.

Business 130**Personal Finance**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Various aspects of personal financial planning covering family budgeting, investments, housing, insurance, taxation, estate planning, credit and its uses, planning for retirement, and installment buying.

Business 140**Principles of Finance**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to corporate financial management and the functioning of global financial markets. Includes financial planning and analysis, working capital management, capital budgeting, time value of money, risk analysis, capital markets, and long term financing.

Business 141**The Globalization of Marketing**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn how to adapt marketing techniques to international markets, how to develop marketing strategies, and how to target markets based on the cultural, political and economic environments. Learn how to create forecasts and budgets for international markets.

Business 142**International Market Research and Planning**

Unit(s): 1.0

Class Hours: 16 Lecture total.

How to research international markets for opportunities using the Internet, government and private resources as well as in-market surveys. Includes the development of international marketing strategies and the analysis of domestic and international markets for import and export opportunities.

**Business 143****Packaging, Pricing, and Promoting Products/Services for Export**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Understand international market requirements. Learn to adapt products and services to meet international market needs. Create competitive price structures. Implement exciting promotion and advertising plans. Learn how to entice international customers to buy U.S. products and services.

Business 145**Channels of Distribution in International Markets**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn alternate methods for distributing products in international markets. How to use distributors and agents. Learn channels of distribution for different industries and different countries. Adapt distribution strategies to maintain product quality, positioning, and competitive price structure.

Business 147**International Commercial Agreements and Distribution Law**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn to create business contracts in the global marketplace and how to use the U.N. Convention on Contracts for the International Sale of Goods. Learn about contracts with foreign sales representatives and laws regulating international distribution. Learn about international limited liability companies and foreign direct investment laws (same as Paralegal 147).

Business 148**International Intellectual Property Law**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn international intellectual property law—patents, copyrights, trademarks, and trade secrets. Learn international treaties relating to intellectual property rights. Learn technology licensing agreements and international franchising (same as Paralegal 148).

Business 149**The Law of Global Commerce**

Unit(s): 1.0

Class Hours: 16 Lecture total.

How countries join together to create trade. Includes NAFTA, GATT, the EU and other trade agreements around the world. Explore law in different legal systems as well as U.S. export regulations (same as Paralegal 149).

Business 150 (C-ID ITIS 120)**Introduction to Information Systems and Applications**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to computer concepts and management information systems. Application software will be used to solve business problems.

Business 160**Introduction to Stock and Bond Investments**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introductory course in investment decision-making. Topics covered are types of securities, securities markets, stocks, bonds, options, mutual funds, value analysis, international investing, portfolio management, and financial planning.

Business 163**International Methods of Payment and Letters of Credit**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Analyze international methods of payment to determine risks and benefits. Learn how to initiate and utilize a letter of credit and its role in international transactions. Learn how to check customer credit and assign payment terms.

Business 164**Alternative Financing Techniques for International Trade**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Explore the alternative financing techniques of bartering, countertrade, and forfeiting for medium-term financing. Learn how the foreign exchange market operates and the risk and management techniques of foreign exchange.

Business 165**International Trade Finance and Insurance**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Borrowing based on specific import/export transactions—documentary bankers' acceptances, clean bankers' acceptance financing, trade acceptance, borrowing against receivables, sale of receivables, and factoring. Learn to assess risks, hedge risks, and insure international trade transactions. Discover Eximbank.

Business 166**Financing an Import/Export Business**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn where and how to obtain financing to operate an international business. Discover domestic and international financing and lending sources, commercial banks and brokers, non-bank lenders, government, and quasi-government lenders. Understand government finance assistance organizations.

Business 170**Principles of Small Business Management**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Practical business skills needed to start and operate a small business. Includes information on risk management, site location, legal aspects, financing, budgeting, merchandising, promotion, and management techniques.

Business 180**Finding and Evaluating Products for Import**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Evaluate the potential of an import business. Contact vendors and source products. Determine import classification, tariffs and taxes, and calculate landed costs to import into the U.S.

Business 182**Classifying Imports and Clearing U.S. Customs**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn to classify products being imported into the U.S. using the Harmonized Tariff Schedule (HTS). Identify applicable duty rates and quotas for products. Learn how the operations and U.S. Customs programs have changed since 9/11/2001.

Business 183**Customs Broker License Class**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Gain in-depth knowledge of import regulations, tariff schedules, and customs law in order to become a customs broker. Learn the concepts covered in the Homeland Security customs broker examination.

Business 184**Customs Broker Exam Prep Class**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prepare for the Customs Broker Exam. Designed to help students study for the Homeland Security Customs Broker Exam.

Business 222**Business Writing**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101 or 101H with a minimum grade of C.

Overview of oral and written communication skills used in business. Emphasizes guidelines for improving writing and speaking skills, common solutions to common communication problems, ethical issues facing business communicators today, instructions on how to identify areas of legal vulnerability, and tested techniques for communicating successfully in today's high-tech, international business environment.



BUSINESS APPLICATIONS (BA)

Business Applications 016

Computer Office Modules

Unit(s): 0.5 - 6.0

Class Hours: 24-192 Laboratory total.

Office training on an individualized basis to include: computer applications (Word, Excel, Access, and PowerPoint), communication skills, office procedures and equipment for entry level office positions, Microsoft Office Specialist practice testing, and office simulation. May be repeated for a maximum of 6 units.

Grade: Pass/No Pass only. Open Entry/Open Exit.

Business Applications 017

Business Writing Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

Comprehensive up-to-date usage of grammar including punctuation, capitalization, number style, spelling, vocabulary development, and other business writing skills. Designed for today's administrative assistant, secretary, word processor, or other office worker.

Business Applications 018

Office Procedures

Unit(s): 3.0

Class Hours: 48 Lecture total.

Develop skills for the automated office including interpersonal relations, administrative support, office communication, and work management. Provides instruction in adapting to the changing office environment, including problem solving and team atmosphere.

Business Applications 034

Machine Calculation

Unit(s): 1.5

Class Hours: 24 Lecture total.

Instruction in the 10-key touch system for the calculator and basic business math skills. Students develop skills and concepts for the workplace, gain familiarity with business concepts, and develop speed and accuracy solving typical business math problems.

Business Applications 035

Computer Fundamentals

Unit(s): 1.5

Class Hours: 24 Lecture total.

Introduction to computer hardware components, software applications, multimedia, and the use of the Internet.

Business Applications 036

Data Entry

Unit(s): 1.5

Class Hours: 24 Lecture total.

Instruction in the process of entering alphabetic and numeric data into the computer to produce report formats such as statistical reports, inventories, payroll records, and registration forms. Students develop dexterity and accuracy while learning data entry procedures.

Business Applications 038

Telephone Techniques

Unit(s): 0.5

Class Hours: 8 Lecture total.

Course will provide a solid foundation for students who want training in the professional use of the telephone. Hands on training in handling business calls.

Business Applications 043

Microsoft Certified Application Specialist

Preparation

Unit(s): 0.5

Class Hours: 8 Lecture total.

Prepares students to take the Microsoft Certified Application Specialist (MCAS) certification exams. Students choose practice programs that replicate actual MCAS exams for Word, Excel, PowerPoint, Access and/or Outlook. May be repeated. Grade: Pass/No Pass only.

Business Applications 047

Introduction to the Legal Office

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of the role of the legal office support personnel. Duties of support personnel, investigation, basic law office organization, court system, and research fundamentals. Focus on ethics, terminology, and interviewing with sensitivity toward the diverse cultural mix of our society.

Business Applications 049

Introduction to Microsoft Access

Unit(s): 1.5

Class Hours: 24 Lecture total.

Introduction to Microsoft Access, a database program which teaches how to create, design, and use databases.

Business Applications 056

General Foundation for Bilingual Business

Interpretation-Spanish/English

Unit(s): 3.0

Class Hours: 48 Lecture total.

A course designed to give general foundations for interpreting and translating in Spanish and English for government and private businesses. Fluency in Spanish and English strongly recommended. May be repeated.

Business Applications 057

Medical Interpretation and Translation-

Spanish/English

Unit(s): 3.0

Class Hours: 48 Lecture total.

A course in medical interpretation/translation designed for employment certification of interpreters for governmental and private health services-providers. Fluency in Spanish and English strongly recommended. May be repeated.

Business Applications 058

Legal Interpretation and Translation-Spanish/English

Unit(s): 3.0

Class Hours: 48 Lecture total.

A course in legal interpretation/translation designed for employment certification of interpreters for government and private legal businesses. Fluency in Spanish and English strongly recommended. May be repeated.

Business Applications 059

Court and Business Work Experience for Interpreters and Translators

Unit(s): 1.0 - 2.0

Class Hours: 16 Lecture total.

Prerequisite: Business Applications 057 or 058 with a minimum grade of C.

An open entry/open exit course in practical interpreter preparation with work experience designed for interpreters/translators for government and private businesses. May be repeated. Open Entry/Open Exit.

Business Applications 066

Microsoft Outlook

Unit(s): 1.5

Class Hours: 24 Lecture total.

Instruction in the use of Microsoft Outlook, a personal information management program used to communicate with others, schedule appointments and tasks, record information about personal and business contacts, and organize files.

Business Applications 101

Cooperative Work Experience Education-Occupational

Unit(s): 1.0 - 4.0

Class Hours: 64 Lecture total.

Supervised paid or volunteer experience in student's major including new or expanded responsibilities. One credit for each 5 hours worked per week to a maximum of 4 units for 20 hours worked per week each semester. Limitation of 16 units in occupational cooperative education courses. Students must be enrolled in a minimum of 7 units including 4 units for Business Applications 101. Grade: Pass/No Pass only.

Business Applications 110A

Computer Keyboarding Skills I

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Proficiency based keyboarding skills includes alphabet, speed, and accuracy development. Open Entry/Open Exit.



**Business Applications 110B
Computer Keyboarding Skills II**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Business Applications 110A with a minimum grade of C.

Continuation and refinement of proficiency based computer keyboarding skills includes: alphabet and numeric keyboard, speed and accuracy development, and basic word processing skills. Open Entry/Open Exit.

**Business Applications 115A
Computer Keyboarding Speed and Accuracy Development I**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Intense review of letter, number, and symbol typing. Emphasis on individual's problem keys. Increase keyboarding speed and improve accuracy through prescribed drills and timed writings on computer. Basic proficiency in typing or keyboarding recommended. Open Entry/Open Exit.

**Business Applications 115B
Computer Keyboarding Speed and Accuracy Development II**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Business Applications 115A with a minimum grade of C.

Refinement of letter, number, and symbol typing. Emphasis on individual's problem keys. Increase keyboarding speed and improve accuracy through prescribed drills and timed writings on computer. Open Entry/Open Exit.

**Business Applications 120
Administrative Office Management**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduces the fundamentals of effective management including basic principles of office management, problem solving, systems thinking, communications, information technology, the ergonomic environment, managing human resources, and office productivity.

**Business Applications 125
Microsoft Word Basics**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Basic procedures for creating, editing, and manipulating documents of varying sophistication using Microsoft Word software.

**Business Applications 147
Introduction to Windows**

Unit(s): 1.5

Class Hours: 24 Lecture total.

The fundamentals of Windows graphical user interface including Help, launching applications, and managing files and folders using My Computer and Windows Explorer. Additional topics include WordPad and customizing Windows using Control Panel.

**Business Applications 148
Advanced Windows**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Continued instruction in Microsoft Windows features. Topics include using the Internet and multimedia; working with digital photos and music; networking and system maintenance; adding software and hardware; and troubleshooting the system.

**Business Applications 150 (C-ID GEOG 155)
Introduction to Geographic Information Systems**

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

Learn to use Geographic Information Systems (GIS). Course covers mapping and spatial analysis capabilities of ArcView software. Students are introduced to GIS, basic cartographic principles and will learn to use ArcView to view relationships, patterns, or trends by plotting data on maps, and its role in analysis and decision-making.

**Business Applications 151
Intermediate Geographic Information Systems**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course is a continuation of the ArcView skills and concepts learned in Introduction to Geographic Information Systems (GIS). It is based on the mapping and spatial analysis capabilities of ArcView software. Students will be creating and editing spatial data, geocode data, perform spatial data processing and conduct spatial analysis.

**Business Applications 160
Microsoft Publisher**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Easy-to-use desktop publishing program that guides you through the process of creating brochures, newsletters, invitations, and flyers. Create professional-looking documents without graphic design training. Use a scanner to incorporate graphics in your documents.

**Business Applications 163
Adobe Acrobat**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Learn to use Adobe Acrobat Pro software to create, secure, optimize, and distribute interactive PDF documents for print and Web. Course covers document review features to add comment and editing notes and electronic signatures used by most departments in an office based on current business standards.

**Business Applications 164
Adobe Photoshop**

Formerly: Introduction to Adobe Photoshop

Unit(s): 3.0

Class Hours: 48 Lecture total.

Learn how to efficiently use Adobe Photoshop for photo and original artwork image editing for print and web projects based on current industry standards and methods. Topics include graphics terminology, color correction, photo repair and restoration, proper file setup and export, masking, filters, channels, and special effects.

**Business Applications 166
Adobe Illustrator**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Learn how to use Adobe Illustrator to digitally create, manipulate, and export vector based graphic images, illustrations, drawings, logos, business cards, and simple page layout for print and Web projects based on current industry standards and methods.

**Business Applications 167
Adobe Photoshop Applications**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Students will learn how to use advanced features of Photoshop and how to integrate the results with other computer and digital programs in order to create a project ready for real world application. Students should have prior knowledge of Photoshop software.

**Business Applications 169
Adobe Dreamweaver**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Learn to use Adobe Dreamweaver to create professional Web sites for mobile, tablet, and desktop devices using current industry standards and methods. The course includes site mapping, wireframes, search engine optimization (SEO) techniques, HTML5, XHTML, responsive fluid design, cascading style sheets (CSS), links, proper setup of web images, cross-browser testing, and publishing.

**Business Applications 170
Adobe InDesign**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Learn how to use Adobe InDesign desktop publishing software to produce professional page layout projects such as brochures, newsletters, flyers, magazines, and books for print and web using current business standards and methods. Topics include typography, importing and linking graphics, creating and applying colors, master pages, frames, proper file setup, styles, interactivity, prepress, and preflight.

**Business Applications 173****Adobe Flash**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course introduces multimedia design for business using Adobe Flash for web sites, banner ads, presentations, and online tutorials based on current industry standards. Topics include animation, import sound and video, ActionScript, interactivity, testing, and publishing for Flash Player or directly into JavaScript code for HTML5. Knowledge of Photoshop helpful.

Business Applications 174**Creating Web Pages with Dreamweaver and Flash**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Provides instruction on designing a dynamic web site from concept to upload to a server using Dreamweaver and Flash together. Students will integrate HTML with multimedia into one web site using cascading style sheets, animation, and sound based on professional business standards and techniques. Knowledge of Word and Photoshop helpful.

Business Applications 176**Microsoft Expression Web**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Learn how to use Microsoft Expression Web, a powerful suite of programs used to develop dynamic, interactive World Wide Web sites and Web pages. Students will learn how to work with text, images, and hyperlinks; create interactivity, forms and page layouts, and publish a Web site.

Business Applications 177**Microsoft OneNote**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Students will learn how to use Microsoft OneNote, create, organize and manage notebooks. Students will work with audio and video files, search Notes, and integrate OneNote with Microsoft Office.

Business Applications 179**Introduction to Microsoft Office**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Learn the basics of the Microsoft Office, suite of applications including Word, Excel, Access and PowerPoint. Acquire skills for creating, formatting, printing, and editing business documents.

Business Applications 180**Advanced Microsoft Office**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Expand your knowledge of the integrated use of Microsoft Office applications. Instruction will include the integration and advanced applications of Microsoft Office. Working knowledge of Office recommended.

Business Applications 183**Microsoft Word**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Step-by-step procedures are taught for creating, editing, and printing business documents with Microsoft Word. Ability to type is recommended.

Business Applications 184**Advanced Microsoft Word for the Workplace**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Step-by-step procedures for using the desktop publishing features of Microsoft Word to create workplace documents.

Business Applications 185**Real World Microsoft Office Projects**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Integration of the Microsoft Office programs including Word, Excel, PowerPoint, Access, and Outlook. Students work in a simulated business organization to complete project-based documents. Students will reinforce and build their software skills, improve Internet skills, and develop teamwork and critical-thinking skills.

Business Applications 187**Graphics and Scanning**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Instruction in the use, conversion, and scanning of graphics for use in PC application programs.

Business Applications 188**Microsoft Excel**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Introduction to Excel spreadsheets including formatting, graphics, charts, and formulas common to business applications.

Business Applications 189**Excel Application Projects**

Unit(s): 1.5

Class Hours: 24 Lecture total.

The student will apply spreadsheet theory and design to typical business related Excel projects. This course will expand student's knowledge of Excel concepts and techniques. Prepares student for Microsoft Excel Certification. Recommended experience with Excel.

Business Applications 190**Microsoft PowerPoint**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Instruction in the essentials of presentation graphics using PowerPoint. Students will learn how to design and produce presentation material for business including transparencies, slides, and screen shows.

Business Applications 191**Powerpoint-Application Projects**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Course will provide an opportunity to develop original presentation project for business, job or personal use. Course is designed to allow students an opportunity to expand knowledge of PowerPoint.

Business Applications 192**Introduction to Microsoft Project**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Students will learn how to plan a project, create project schedules, communicate project information, use the critical path, assign resources, track progress, and share information across applications and the Web using Microsoft Project.

BUSINESS SEMINAR (BUSM)**Business Seminar 001****Time Management**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to apply various time management techniques to properly allocate your time and energy on the job. Emphasis is on an individual approach to identifying personal time wasters and setting task priorities. Grade: Pass/No Pass only.

Business Seminar 002**Coping With Negative People**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Truly negative people - Negaholics - are addicted to being negative and strive to pass on their negative feelings to everyone around them. This seminar provides a wide variety of coping techniques to maintain a positive attitude, reduce stress, and improve life at work. Grade: Pass/No Pass only.

Business Seminar 003**Understanding Personal Workstyles**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Understanding differing personal workstyles can influence successful cooperation and productivity. Learn complementary vs. conflicting workstyles, strengths, and blindspots of workstyles, and identify and how to analyze your own workstyle. Grade: Pass/No Pass only.

Business Seminar 004**Goal Setting on the Job**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to assure the accomplishment of job responsibilities through the understanding of the roadblocks to goal achievement. Includes developing a plan to meet short and long term goals and learning to establish a support system to achieve these goals. Grade: Pass/No Pass only.

**Business Seminar 005****How to Delegate Effectively**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to utilize effective delegation techniques for improving results achieved through others. Includes resistance to delegation, appropriate time to delegate, and the use of delegation to develop employees. Grade: Pass/No Pass only.

Business Seminar 006**Improving Employee Performance**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to improve employee performance by analyzing performance problems, setting objectives and goals, and developing successful counseling and motivation techniques. Grade: Pass/No Pass only.

Business Seminar 007**Preparing for Supervision**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Techniques on how to prepare for the job of supervisor. Includes a focus on the role of the supervisor, delegation, performance review, communication, handling difficult employees, and how to prepare for the supervisory job interview. Grade: Pass/No Pass only.

Business Seminar 008**Elements of Supervision**

Unit(s): 0.4

Class Hours: 16 Lecture total.

Introduction to management skills for new and existing supervisors. Includes management styles, motivation, human relations, leadership, group dynamics, and communications. Grade: Pass/No Pass only.

Business Seminar 009**Problem Solving and Decision Making**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to solve problems and improve decision making skills through the application of sound problem solving techniques. Designed to help all employees increase their effectiveness in daily operations. Grade: Pass/No Pass only.

Business Seminar 010**Motivating Your Employees**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to maintain a consistent and high level of productivity through the understanding and application of basic motivation theories. The focus is on improving employee job satisfaction through the accomplishment of organizational goals. Grade: Pass/No Pass only.

Business Seminar 011**Coaching Your Employees**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Techniques for supervisors to help their employees achieve winning outcomes. Includes a coaching vocabulary, an understanding of what coaching is and isn't, and guidelines to determine where coaching fits in the organization. Grade: Pass/No Pass only.

Business Seminar 012**Managing Conflict on the Job**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to identify and deal with the many causes of job-related conflict. Emphasis on reducing the negative effects of conflict to improve productivity. Grade: Pass/No Pass only.

Business Seminar 013**Avoiding Burn-Out**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to deal with the effects of job burn-out: listlessness, fatigue, and loss of interest in the job. Includes the stages of burn-out, coping strategies, and organizational responsibility. Grade: Pass/No Pass only.

Business Seminar 014**Situational Leadership**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to increase your effectiveness as a leader by understanding the relationship between leadership and performance improvement. Includes identification of leadership behaviors and the techniques needed to adapt your leadership style to increase employee effectiveness. Grade: Pass/No Pass only.

Business Seminar 015**Applied Supervision**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Application of supervisory principles and management theory to case studies and student's situations on the job. Includes basic problem solving and decision-making techniques, leadership skills, team-building techniques, and motivational application. Completion of Elements of Supervision is recommended. Grade: Pass/No Pass only.

Business Seminar 016**Managing Change**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to manage change within an organization's environment, structure, technology, and people. Includes forces that create change, techniques for reducing resistance to change, and coping strategies. Grade: Pass/No Pass only.

Business Seminar 017**Employee Relations for Supervisors**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Understanding the rights of employees and the responsibilities of supervisors. The focus is on techniques for preventing employee grievances and complaints, progressive discipline, discrimination issues, and proper documentation. Grade: Pass/No Pass only.

Business Seminar 018**Team Building Skills**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to change a group into a team to increase productivity, efficiency, and effectiveness. Includes the differences between a group and a team, the phases of team building, and the tools required for the process. Grade: Pass/No Pass only.

Business Seminar 019A**Managing Emotional Intelligence (EQ)**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Emotional intelligence (EQ) is the capacity for self-awareness, self-management, and social awareness that affects our relationships with others. This seminar focuses on how to improve employee effectiveness and create positive organizational change through the understanding and management of emotions. Grade: Pass/No Pass only.

Business Seminar 019B**Managing Emotional Intelligence: Self Awareness**

Unit(s): 0.2

Class Hours: 8 Lecture total.

This seminar focuses on the personal inquiry segment of emotional intelligence. The goal of this class is for each student to emerge with an enhanced level of self-awareness, personal power, and personal responsible. Grade: Pass/No Pass only.

Business Seminar 019C**Managing Emotional Intelligence: Social Awareness**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Exploration of our ability to assess and react to various personalities and situations. This seminar explores interaction styles, social personality, and social awareness that will leave students with a stronger functioning ability with various personalities in their day to day interactions. Grade: Pass/No Pass only.

**Business Seminar 020A****Workplace Boundaries**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Understanding how various personalities affect and control us is strongly related to our personal success. This seminar helps one build upon personal strengths, establish personality alignment, and create a safe, respectful and productive environment. Grade: Pass/No Pass only.

Business Seminar 020B**Workplace Boundaries: Personal Exploration**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Exploring the realities of our own boundary strengths and weaknesses allows us to develop strong yet resilient boundaries that remain functional even through difficult circumstances. This seminar provides an opportunity to explore one's personal boundaries in a safe, controlled environment. Grade: Pass/No Pass only.

Business Seminar 026A**Basic Writing Skills**

Unit(s): 0.4

Class Hours: 16 Lecture total.

How to increase the effectiveness of your written communications. Includes message development, building strong sentence structure, and paragraph construction, and writing style. Grade: Pass/No Pass only.

Business Seminar 026B**Advanced Business Writing**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to revise and refine memos, letters, and reports to produce professional final documents that convey the meaning intended. The focus is on the types of documents the students are currently working on in the work environment. Grade: Pass/No Pass only.

Business Seminar 027**Business Writing for Results**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to write with clarity and conciseness in today's business environment. The focus is on the correct approach to reach your audience, how to determine the correct tone, and how to eliminate clutter from your writing so your message gets the attention and response you want. Grade: Pass/No Pass only.

Business Seminar 028**Building Your Vocabulary**

Unit(s): 0.4

Class Hours: 16 Lecture total.

How to improve your communication skills by improving your vocabulary. Includes methods for learning and retaining new words and strategies for applying your new vocabulary to organizational communications. Grade: Pass/No Pass only.

Business Seminar 029**Grammar and Punctuation Skills**

Unit(s): 0.4

Class Hours: 16 Lecture total.

How to recognize and apply the basic principles of grammar and punctuation to improve your business writing skills. Includes sentence structure and the proper use of numbers. Grade: Pass/No Pass only.

Business Seminar 030**Effective Communications**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to improve your oral communications skills. Includes practical guidelines for getting useful feedback, avoiding verbal blocks, identifying nonverbal messages, listening effectively, and discovering hidden agendas. Grade: Pass/No Pass only.

Business Seminar 031A**Learning to Listen**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to apply listening techniques to improve your communication skills. Includes major blocks to listening, paraphrasing skills, body language, feedback, and identifying hidden messages. Grade: Pass/No Pass only.

Business Seminar 031B**Learning to Listen: Practice Application**

Unit(s): 0.2

Class Hours: 8 Lecture total.

This seminar provides an intensive listening format and is structured to give the student the opportunity to learn and enhance skills in hearing specific elements of verbal communication, tapping into intention, reading non-verbals, and reacting to various conversational styles and scenarios. Grade: Pass/No Pass only.

Business Seminar 032**Presentation Skills**

Unit(s): 0.4

Class Hours: 16 Lecture total.

How to prepare and deliver professional presentations. Includes audience analysis, purpose, introduction, body, conclusions, building self-confidence, and body language techniques. Grade: Pass/No Pass only.

Business Seminar 033**Overcoming Speech Fright**

Unit(s): 0.4

Class Hours: 16 Lecture total.

How to overcome anxieties that may occur when making various types of presentations. Learn the causes of speech fright, cognitive restructuring, systematic desensitization, and techniques to reduce speech fright. Grade: Pass/No Pass only.

Business Seminar 034**Interviewing Techniques**

Unit(s): 0.4

Class Hours: 16 Lecture total.

How to apply the techniques used in the selection and counseling of employees for various types of interviewing situations. Includes planning and organizing an interview, gathering and exchanging information, using open and closed-ended questions, and evaluating the results. Grade: Pass/No Pass only.

Business Seminar 035**Negotiation Techniques**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to apply the fundamentals of negotiating techniques to achieve your objectives. Includes preparation for negotiation; building leverage; developing a suitable climate; strategies, tactics and countermoves; and the application of nonverbal communication. Grade: Pass/No Pass only.

Business Seminar 036**Cross-Cultural Communication**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to work effectively in a multicultural environment. Includes techniques for communicating cross culturally, strategies for retrieving and interpreting information, and three elements of culture that influence decisions and problem resolution. Grade: Pass/No Pass only.

Business Seminar 037**Dealing Successfully With the Public And Customers**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to deal with the public and customers to effectively solve their problems and create positive relationships. Includes learning to establish rapport, how to control sensitive situations, listening techniques, and problem solving. Grade: Pass/No Pass only.

Business Seminar 038**Creativity and Brainstorming**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to solve problems through the effective use of sharing ideas and information. Includes a wide variety of ways to harness creativity to find and implement new solutions and options for job related problems. Grade: Pass/No Pass only.

Business Seminar 039**Interpersonal Relationships in the Office**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to understand and deal with the variety of interpersonal behaviors within an office environment. Includes methods for dealing with others who have different backgrounds, personalities, temperaments, values, and needs. Grade: Pass/No Pass only.

**Business Seminar 040****The Effective Use of E-Mail**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use the ten key essential elements of effective email to get message across. Included in this skill-building seminar will be how to: grab your reader's attention, add visual punch to your email, determine the right tone for your message, remove unnecessary clutter, and recognize the pitfalls of emotions. Grade: Pass/No Pass only.

Business Seminar 041**Workplace Morale**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Positive interaction with other employees as well as pride in work is vital to productivity and the emotional health of each employee. This seminar dissects the various aspects of morale with a focus on personalities, mood, negotiation skills, developing communication abilities, and stress reduction techniques. Grade: Pass/No Pass only.

Business Seminar 042**Facilitation Skills**

Unit(s): 0.4

Class Hours: 16 Lecture total.

Learn how to facilitate meetings and discussion groups in an interactive manner with any group of highly diverse individuals. The use of questioning techniques, dealing with difficult people at meetings, the use of films and other mediums, and creating an adult learning environment will be explored. Grade: Pass/No Pass only.

Business Seminar 046**Stress Reduction Techniques**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to apply coping mechanisms, relaxation techniques, and self-assessment skills to manage stress that impacts productivity on the job and in personal lives. Grade: Pass/No Pass only.

Business Seminar 047A**Memory Skills**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to apply techniques for improving memory and concentration. Includes concentration techniques, effective study methods, proper listening habits, and abstract idea interpretation. Grade: Pass/No Pass only.

Business Seminar 047B**Memory Skills: Practical Application**

Exploration

Unit(s): 0.2

Class Hours: 8 Lecture total.

This seminar provides in class memory capacity development. The students will experiment and implement various tricks and techniques while developing and personalizing the techniques best suited to their purposes. Grade: Pass/No Pass only.

Business Seminar 048**Assertion Training**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to communicate clearly and concisely without being overly aggressive or shy. Includes individual behavior patterns and assertive techniques with emphasis on how to ask for what you want and how to say no without feeling guilty. Grade: Pass/No Pass only.

Business Seminar 049**Building Interpersonal Skills**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Building interpersonal skills and interpersonal relationships. Includes work/personality styles, self-analysis, assertion techniques, establishing credibility, and coping with anger. Grade: Pass/No Pass only.

Business Seminar 050**Overcoming Procrastination**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to overcome the tendency to put off tasks that should be done now. Includes reasons why people procrastinate, task sequencing techniques, and the steps to follow to overcome the problem. Grade: Pass/No Pass only.

Business Seminar 051**Personal and Financial Success**

Unit(s): 0.2

Class Hours: 8 Lecture total.

The fundamentals of how to achieve personal and financial success. Includes a "how to" approach assisting participants in understanding terminology and various processes to improve the quality of life now and in the future. Grade: Pass/No Pass only.

Business Seminar 052**Getting the Life and Job Satisfaction You Want**

Unit(s): 0.4

Class Hours: 8 Lecture total.

How to explore the positive results of reducing stress, raise self-esteem, turn conflict into cooperation, and free the mind to create. Includes relaxation exercises, how to avoid burnout in daily activities, maintain a proactive attitude, and replacing destructive stress. Grade: Pass/No Pass only.

Business Seminar 060**Proofreading Skills**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to apply effective proofreading techniques to improve the accuracy of written communications. Emphasis on identifying and correcting errors which frequently occur in business communications. Grade: Pass/No Pass only.

Business Seminar 062**Organizing Files and Records**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to plan and implement systems for efficient filing and retrieval of documents. Includes techniques for improving organization, maintaining control, and eliminating redundancy in files and records. Grade: Pass/No Pass only.

Business Seminar 065B**Word - Intermediate**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to perform basic procedures for document and paragraph formatting in Microsoft Word. Includes headers and footers, columns, tables, macros, and merge. Grade: Pass/No Pass only.

Business Seminar 065C**Word - Advanced**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to perform advanced procedures in graphics, charts, newsletters, and job related tasks using all components of Microsoft Word. Grade: Pass/No Pass only.

Business Seminar 066A**Excel - Beginning**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to create worksheets using Microsoft Excel. Includes entering data, formulas, formatting, and creating charts. Grade: Pass/No Pass only.

Business Seminar 066B**Excel - Intermediate**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Additional topics for students familiar with the basics of Excel. Includes advanced formatting, templates, database applications, and sharing between applications. Grade: Pass/No Pass only.

Business Seminar 066C**Excel - Advanced**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Advanced procedures utilizing all Excel features including database, macros, scenarios and job related tasks. Grade: Pass/No Pass only.

**Business Seminar 067A****Access - Beginning**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to create a database using Microsoft Access. Includes data entry basics, form design, queries, and report generation.

Grade: Pass/No Pass only.

Business Seminar 067B**Access - Intermediate**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use Database Wizards, export data to Word and Excel, perform queries, and filter records in a database file. Grade:

Pass/No Pass only.

Business Seminar 067C**Access - Advanced**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to perform the advanced features of Microsoft Access. Includes database relationships, advanced forms, reports, graphing and macros. Grade: Pass/No Pass only.

Business Seminar 068A**Powerpoint - Beginning**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to develop a basic presentation using Microsoft PowerPoint. Includes design templates, adding graphics, developing note pages, slides, and transparencies. Grade: Pass/No Pass only.

Business Seminar 068B**Powerpoint - Intermediate**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to enhance your PowerPoint presentations. Includes time saving techniques, customizing slide layouts, developing charts, and using drawing tools. Grade: Pass/No Pass only.

Business Seminar 068C**Powerpoint - Advanced**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to apply advanced procedures to your PowerPoint presentations. Includes creating charts, handouts and note pages, embedding/linking objects, redesigning templates and slide show options. Grade: Pass/No Pass only.

Business Seminar 069A**Outlook - Beginning**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to send and receive email messages, use the Calendar to keep track of schedules, use the Contacts list to manage addresses, use the Task list to manage To-Do's, and use the Journal to keep a log of important activities. Grade: Pass/No Pass only.

Business Seminar 069B**Outlook - Advance**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use the advanced features of Microsoft Outlook. Includes the "out-of-office" assistant, adding signatures, formatting messages, organizing folders, automatically manage, sort, and delete email messages, and how to use Outlook with other programs. Grade: Pass/No Pass only.

Business Seminar 070A**Ms Publisher - Beginning**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to create brochures, flyers and newsletters using Microsoft Publisher. Includes an introduction layout, font types, image and text formats and the use of color.

Grade: Pass/No Pass only.

Business Seminar 070B**Ms Publisher - Intermediate**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use MS Publisher to efficiently create more elaborate publications. The skills covered will include: using templates, facing pages, master pages, and working with multiple columns. Grade: Pass/No Pass only.

Business Seminar 070C**Ms Publisher - Advanced**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use MS Publisher to create publications utilizing advanced features and tools. The skills covered will include: merging databases with publications, utilizing tables, creating forms, and creating Web pages. Grade: Pass/No Pass only.

Business Seminar 071A**Visio - Beginning**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use Microsoft Visio to visually communicate information concepts, procedures, business processes, product information, and more through the use of flowcharts, charts, and diagrams. Grade: Pass/No Pass only.

Business Seminar 071B**Visio - Intermediate**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use the more advanced features of MS Visio to create and use flowcharts and diagrams for professional communication. Includes working with shapes, creation of timelines, Gantt charts, working with layers, making graphs, and creating reports. Grade: Pass/No Pass only.

Business Seminar 072**Introduction to Windows XP**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use the features of the Windows XP operating system. Includes the user interface, customizing the desktop, window manipulation, creating users, file transfers, setting and using "restore" points, directory structure, and disk formatting. Grade: Pass/No Pass only.

Business Seminar 073A**Adobe Acrobat Basics**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use Adobe Acrobat to create, edit, and convert files and forms for reliable electronic document exchange around the office, over the Web, or by email using Adobe Portable Document Format (PDF). Grade: Pass/No Pass only.

Business Seminar 074A**Adobe Photoshop - Beginning**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use Adobe Photoshop to retouch and repair photographs for use in the print and Web environment. Includes topics on: the Photoshop work area, tool usage, layers, cropping and straightening photos, sharpening techniques, fixing exposure mistakes, and removing red-eye. Grade: Pass/No Pass only.

Business Seminar 074B**Adobe Photoshop - Intermediate**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use Adobe Photoshop to correct digital camera and scanned image problems. Includes topics on: color correction, adjusting flesh tones, converting color photos to black and white, extracting people from the background, retouching portraits by reducing freckles, wrinkles, removing blemishes, dark circles under the eyes and whitening teeth. Grade: Pass/No Pass only.

Business Seminar 074C**Adobe Photoshop - Advanced**

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to use advanced features of Adobe Photoshop to retouch and repair photographs for use in the print and web environment. Includes topics on: repairing scanned photos by removing specks, dust and scratches; restoration of old photos, colorizing black and white photos, creating photo montages, and preparing photos for various types of output. Grade: Pass/No Pass only.



Business Seminar 075A
Web Page Development - Beginning

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to develop basic Web pages using Microsoft FrontPage. Includes using toolbars, templates, design techniques, links, and HTML basics. Grade: Pass/No Pass only.

Business Seminar 075B
Web Page Development - Intermediate

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to enhance your Web pages using Microsoft FrontPage. Includes techniques to make a Web site more dynamic, interactive, and user friendly. Grade: Pass/No Pass only.

Business Seminar 076
Fundamentals of Geographic Information Systems (GIS)

Unit(s): 0.2

Class Hours: 8 Lecture total.

An introduction to the concepts and uses of Geographical Information Systems. Topics include the GIS history, applications, data structures and sources, tools, software, and resources. Grade: Pass/No Pass only.

Business Seminar 078A
Word - Beginning

Unit(s): 0.2

Class Hours: 8 Lecture total.

Learn the basics of MS Word including: parts of the Word screen, keying text, editing, saving, printing, formatting, themes, clipboard, finding, page setup, envelopes and creating labels. Grade: Pass/No Pass only.

Business Seminar 079A
Access-Beginning

Unit(s): 0.2

Class Hours: 8 Lecture total.

Learn database basics in Access including the structure and components of Access: tabs, ribbons, groups, major objects, queries, forms, filters, creating a database, primary key fields, and managing Access files. Grade: Pass/No Pass only.

Business Seminar 079B
Access-Intermediate

Unit(s): 0.2

Class Hours: 8 Lecture total.

Designing and managing database objects; data integrity, designing queries, adding and modifying forms, adding and modifying reports. Grade: Pass/No Pass only.

Business Seminar 080A
Excel-Beginning

Unit(s): 0.2

Class Hours: 8 Lecture total.

This course is an introduction to Excel and its visual interface. Students will learn to create worksheets, enter data, utilize simple formulas and functions, format data and cells, how to save excel workbooks, and printing. Grade: Pass/No Pass only.

Business Seminar 081A
Powerpoint-Beginning

Unit(s): 0.2

Class Hours: 8 Lecture total.

Learn how to navigate this new user interface and the basics of this powerful presentation package including: creating presentations from design templates, adding graphics and developing note pages and handouts, and running a timed on-screen show. Grade: Pass/No Pass only.

Business Seminar 082A
Outlook-Beginning

Unit(s): 0.2

Class Hours: 8 Lecture total.

Learn how to send and receive email messages in this new user interface and the basics of this format including: how to use the calendar, the contacts list, the task list, and the journal. Grade: Pass/No Pass only.

CHEMISTRY (CHEM)

Chemistry 109
Chemistry in the Community

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

The non-science major will study practical applications of chemistry and the chemical principles behind them including: the scientific method, atomic structure, molecular models, and chemical reactions. Environmental and community issues will be the focus of student centered laboratories, discussions and field trips. Group work and computer activities will be used in this cooperative learning environment. May be repeated.

Chemistry 115
Concepts in Physical Sciences for Educators

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

An investigation of basic principles of physics and chemistry including matter, physical and chemical properties, energy, motion, light, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. Designed for non-science majors, concepts are introduced in lab through inquiry and further developed during discussion. Completion of Math N48 is recommended (Same as Physical Science 115).

Chemistry 119
Fundamentals - General and Organic

Unit(s): 5.0

Class Hours: 64 Lecture, 48 Laboratory total.

Prerequisite: Mathematics 060 or 061 with a minimum grade of C.

No prior chemistry needed. For majors in nursing, dietetics, family and consumer studies, pharmacy technology, biology, and physical education. Includes atomic structure, nuclear chemistry, bonding, solutions, acids and bases, organic nomenclature, hydrocarbons and alcohols.

Chemistry 209
Introductory Chemistry

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Mathematics 080 or 081 with a minimum grade of C.

Basic concepts of matter: atomic structure, formulas, equation writing, nomenclature, gases and kinetic theory. Emphasizes properties of solutions, and the mole concept in quantitative chemistry. Prepares students for biology and Chemistry 219.

Chemistry 210
General, Organic and Biochemistry

Unit(s): 5.0

Class Hours: 64 Lecture, 48 Laboratory total.

Prerequisite: Chemistry 209 with a minimum grade of C OR passing grade on current chemistry placement exam and Mathematics 080 or 081 with a minimum grade of C.

An introduction to the fundamental concepts of general, organic and biochemistry for majors in nursing and other allied health majors. Includes atomic structure, nuclear chemistry, bonding, solutions, acids and bases, organic nomenclature, hydrocarbons, alcohol, aldehydes, ketones, carboxylic acids, carbohydrates, proteins, lipids, nucleic acids and metabolism.

Chemistry 219
General Chemistry

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Mathematics 080 or 081 and Chemistry 209 with a minimum grade of C or Mathematics 080 or 081 with a minimum grade of C and a passing score on current chemistry placement test.

Fundamental principles and concepts of chemistry including, but not limited to, atomic structure, quantum theory, periodic properties, stoichiometry, oxidation-reduction, molecular structure and bonding, gas laws, states of matter, solutions, chemical kinetics and chemical equilibrium.



Chemistry 219H Honors General Chemistry

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Mathematics 080 or 081 and Chemistry 209 with a minimum grade of C or Mathematics 080 or 081 with minimum grade of C and a passing score on current chemistry placement test. Cumulative GPA of 3.0. Transcripts required to verify prerequisite.

Enriched and intensive study, including seminar approach, of fundamental principles and concepts of chemistry including, but not limited to, atomic structure, quantum theory, periodic properties, stoichiometry, oxidation-reduction, molecular structure and bonding, gas laws, states of matter, solutions, chemical kinetics and chemical equilibrium.

Chemistry 229 General Chemistry and Qualitative Analysis

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Chemistry 219 with a minimum grade of C.

Continuation of Chemistry 219, including but not limited to ionic equilibrium, acid and base equilibrium, thermodynamics, electrochemistry, nuclear chemistry, organic chemistry and descriptive chemistry.

Chemistry 249 Organic Chemistry I

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Chemistry 229 with a minimum grade of C.

This course is the first semester of a year of organic chemistry. This course will cover: structure and bonding, nomenclature, descriptive chemistry, reaction mechanisms, synthetic methods and IR spectroscopy for different functional groups including alkanes, alkenes, alkynes, alkyl halides, organometallics, alcohols, and ethers. Laboratory will include: separations/purifications identification, and simple syntheses.

Chemistry 259 Organic Chemistry II

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Chemistry 249 with a minimum grade of C.

This course is the second semester of a year of organic chemistry (continuation of Chemistry 249). It includes units on structure elucidation, aromatic compounds, carbonyl compounds, carboxylic acids and their derivatives, amines, and classes of biologically important compounds. More complex synthetic routes are explored. Laboratory work includes multi-step syntheses and unknown identification. Reaction mechanisms and use of spectroscopic techniques continue to be emphasized.

CHICANO STUDIES (CHST)

Chicano Studies 101

Introduction to Chicano Studies

Unit(s): 3.0

Class Hours: 48 Lecture total.

An interdisciplinary survey of Chicano society from a sociological, economic, political, philosophical, and cultural perspective from pre-Columbian civilizations to contemporary society. This course is designed to present a foundation in Chicano history.

CHINESE (CHNS)

Chinese 101

Elementary Chinese I

Unit(s): 5.0

Class Hours: 80 Lecture total.

Practice and integration of pronunciation, grammar, vocabulary, and common idioms through listening, speaking, reading, and writing so that students can begin to express thoughts orally and in writing. The class will also introduce students to culture and social linguistic knowledge appropriate to Chinese-speaking societies.

Chinese 102

Elementary Chinese II

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Chinese 101 or equivalent, or two years of high school Chinese with a passing grade.

Continuation of Chinese I. Further training in language skills providing avenues for the expression of ideas in both oral and written forms. Enhanced study of culture and socio-linguistic knowledge appropriate to Chinese-speaking societies.

COMMUNICATION STUDIES (CMST)

Communication Studies N49

Introduction to Academic Speaking Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

Beginning course for non-native students with previous instruction in basic English as a second language. Includes listening discrimination, pronunciation, speaking and listening skill building. Skills are intensively practiced and reviewed. Not applicable to associate degree. Grade: Pass/No Pass only.

Communication Studies N50 Pronunciation Skills Laboratory

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Sign-in/out listening and speaking practice in a lab setting. Utilizes pronunciation and vocabulary/conversational material. 48 hours earns 1 unit. Not applicable to associate degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Communication Studies N52A

Beginning American English Pronunciation Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English for Multilingual Students 055 with a minimum grade of C.

Instruction in pronunciation of American English sounds, identifying commonly mispronounced sounds, and common sound spelling patterns. Not applicable to associate degree. Grade: Pass/No Pass only.

Communication Studies N52B

Intermediate American English Pronunciation Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Communication Studies N52A with a minimum grade of C.

More extensive instruction in American English sounds. Emphasis on more difficult sounds, sound blends, word endings, syllable and word stress. Not applicable to associate degree.

Communication Studies N53

Advanced American English Pronunciation Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English for Multilingual Students 107 and Communication Studies N52B with a minimum grade of C.

For those who have learned the American English sound system. Intensive practice pronouncing English words, sentences with appropriate stress and intonation, and difficult sounds/sound patterns in sentences and conversations. Not applicable to associate degree.

Communication Studies N54

Accent Reduction

Unit(s): 1.0

Class Hours: 16 Lecture total.

Prerequisite: Concurrent or previous enrollment in English for Multilingual Students 055 or 107, or 109, or 110, or 112.

Individualized instruction to assist in the reduction of foreign accents.

Improvement of discrimination and production of the American English sound system, melody, intonation and stress patterns. Not applicable to associate degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Communication Studies N59 Pronunciation Review

Unit(s): 1.0

Class Hours: 16 Lecture total.

Prerequisite: Communication Studies N52A with a minimum grade of C.

Review of the pronunciation system of American English. Designed for non-native speakers who have studied pronunciation, but need further practice and identification of specific needs for improvement. Grade: Pass/No Pass only.



Communication Studies 096
American English Listening Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

Designed for non-native speakers wanting to improve ability to comprehend conversations, lectures, and other forms of spoken English. Introduces basic listening skills and provides intensive listening practice. Helps prepare for transfer level courses. Completion of Communication Studies 097 recommended.

Communication Studies 097
American English Conversational Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Communication Studies N52B with a minimum grade of C or concurrent enrollment; English for Multilingual Students 107 or higher with a minimum grade of C.

Intensive, advanced conversational practice of American English. The course emphasizes oral competency in key American social, academic and business encounters and communication techniques. Laboratory hours are required. Preparation for Communication Studies 101 or 101H. Designed for non-native speakers.

Communication Studies 101
(C-ID COMM 130)

Introduction to Interpersonal Communication

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to communication theory, listening, perception, language usage, non-verbal communication, and conflict management. Recommended for students who have completed or are currently enrolled in English 101.

Communication Studies 101H
(C-ID COMM 130)

Honors Introduction to Interpersonal Communication

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Introduction to communication theory, listening, perception, language usage, non-verbal communication and conflict management. An enriched approach designed for honors students. Seminar mode stresses the development of analytical thinking, writing, and speaking skills. Completion or concurrent enrollment in English 101 recommended.

Communication Studies 102
Public Speaking

Unit(s): 3.0

Class Hours: 48 Lecture total.

Teaches critical thinking skills in relation to public speaking. Emphasis on the process, principles, and major facets of critical thinking with practice through oral presentations. Communication Studies 097 recommended for non-native speakers.

Communication Studies 103
(C-ID COMM 150)

Introduction to Intercultural Communication

Unit(s): 3.0

Class Hours: 48 Lecture total.

A general view of the sociological, psychological, and communication patterns of various cultural groups. Special emphasis on the methods, skills, and techniques necessary for effective intercultural, cross-cultural, and interracial communication. Stresses the development of analytical thinking, speaking, and writing skills. Communication Studies 097 recommended for non-native speakers.

Communication Studies 103H
(C-ID COMM 150)

Honors Introduction to Intercultural Communication

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: High school or college GPA of 3.0 or above.

Enriched for honors students. In-depth, seminar format examination of sociological, psychological, and communication patterns of various cultural groups. Methods, skills, and techniques for effective intercultural and interracial communication. Stresses analytical thinking, speaking, and writing skills.

Communication Studies 104
Listening

Unit(s): 1.5

Class Hours: 24 Lecture total.

Prerequisite: Communication Studies 097 with a minimum grade of C.

For students wanting to assess and improve their current listening/responding capabilities. Emphasizes appropriate application of diverse listening skills.

Communication Studies 107
Communication for the Health Care Professional

Unit(s): 1.5

Class Hours: 24 Lecture total.

Introduction to communication skills vital to health care settings-listening, presentation skills, cultural awareness, expressions and terminology used in health care settings. Designed for students whose first language is not English.

Communication Studies 140
(C-ID COMM 120)

Argumentation and Debate

Unit(s): 3.0

Class Hours: 48 Lecture total.

Principles of debate techniques with emphasis on methods of logical analysis and reflective thinking. Practical application through adaptation of material to forms of debate on current issues. Completion of or concurrent enrollment in English 101 recommended. Communication Studies 097 recommended for non-native speakers.

Communication Studies 145
Group Dynamics

Unit(s): 3.0

Class Hours: 48 Lecture total.

Principles and methods of communication as applied in the small group setting. Emphasis on communication skills, processes, and operations in the small group. Includes understanding group dynamics and cooperative problem solving. Communication Studies 097 recommended for non-native speakers.

Communication Studies 151
Voice and Diction for Effective Communication

Unit(s): 3.0

Class Hours: 48 Lecture total.

Basic speech and voice production. Anatomy and physiology related to respiration (breathing/loudness), phonation (sound/pitch) and articulation (diction/clarity). Practice in improving vocal skills for effective communication. Designed for individuals who have special demands on vocal production in their vocation. Communication Studies 097 recommended for non-native speakers.

Communication Studies 152
Oral Interpretation

Unit(s): 3.0

Class Hours: 48 Lecture total.

Oral presentation of prose and poetry; practice in speaking, interpretation, and analysis of literature, with training in the principles of effective delivery. Communication Studies 097 recommended for non-native speakers. Not offered every semester.

Communication Studies 158
Readers Theatre

Unit(s): 3.0

Class Hours: 48 Lecture total.

Oral presentation of prose and poetry; practice in speaking, reading, and analysis of literature, with training in the principles of effective ensemble delivery. Communication Studies 097 recommended for non-native speakers.

**Communication Studies 170****Introduction to Phonetics**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of the articulatory foundations of the description and classification of speech sounds. Introduces the International Phonetic Alphabet (IPA), physiological properties of the speech-producing mechanism, and methods of transcription. Emphasis will be on American English along with comparison to the sound systems of other languages. Communication Studies N53 recommended for non-native speakers.

Communication Studies 206**Gender Communication**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Communication Studies 101 or higher with a minimum grade of C.

Practical application, techniques and in-depth analysis of male and female communication regarding language usage, biological and social influences, mass media, marriage, organizations, same sex/cross sex friendships, and education.

Communication Studies 206H**Honors Gender Communication**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Communication Studies 101 or higher with a minimum grade of C OR a high school or college GPA of 3.0 or above.

An enriched approach in practical application, techniques, and in-depth analysis of male and female communication regarding language usage, biological and social influences, mass media, marriage, organizations, same sex/cross sex friendships, and education. Students will be required to do individual/group professor-guided research.

COMMUNICATIONS & MEDIA STUDIES (CMSD)**Communications & Media Studies 102****Multimedia Storytelling**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Explores alternative story forms by combining text, still photographs, video clips, audio, graphics and interactivity to tell stories in the most compelling and informative way. Focuses on using a variety of media to tell different parts of a story for presentation in digital and online platforms.

Communications & Media Studies 103**(C-ID JOUR 170)****Introduction to Visual Communications**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This multimedia course explores the social, cultural and historical implications of visual communications from Gutenberg's printing press to present day digital media. Using works of philosophical, historical and cultural importance students will analyze and debate the changes in the way visual communications affect society, and shape cultural values.

Communications & Media Studies 110**Introduction to Creative Nonfiction**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 101, 101H or Communications & Media Studies 121 with a minimum grade of C.

Exploration of creative nonfiction writing concepts, and genres with focus on critically reading and analyzing respected works of literature ranging from biography and review to profiles and personal essays.

Communications & Media Studies 111**Media, Race and Gender**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This multimedia course is an overview of the social and cultural implications of mass media on race and gender from the 1920s to the present. Using works of philosophical and cultural importance students will analyze and debate the changes in the faces of media with particular focus on social class, gender and ethnicity.

Communications & Media Studies 121**(C-ID JOUR 110)****Introduction to Reporting and Newswriting**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to evaluating, gathering, and writing news across multiple platforms under newsroom conditions. Includes role of the journalist in a multi-media environment and the legal and ethical issues related to reporting. Writing experiences include: web-based and multi-media reporting, interviewing techniques, research methods, application of media law, writing under deadline and use of AP Style.

Communications & Media Studies 122**Editing for Print and Digital Media**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to editing for print and digital media. Course emphasizes Associated Press Style, syntax, grammar, copy editing and headline writing.

Communications & Media Studies 123A**(C-ID JOUR 130) (C-ID JOUR 131)****News Media Production**

Unit(s): 4.0

Class Hours: 64 Lecture, 160 Laboratory total.

A production-based course designed around a functioning media organization, providing students practical training in print, digital and Web-based media through work as members of the campus news magazine *el Don* and its website eldonnews.org. Students utilize a digital laboratory to gain practical experience in a variety of disciplines, including writing, editing, design, photography, audio, visual, multimedia and emerging technologies. Arranged laboratory hours (TBA) 10 hours per week.

Communications & Media Studies 123B**Intermediate News Media Production**

Unit(s): 4.0

Class Hours: 64 Lecture, 160 Laboratory total.

Prerequisite: Communications & Media Studies 123A with a minimum grade of C or equivalent college media course.

An intermediate level production-based course designed around a functioning media organization, providing students practical training in print, digital and web-based media through work as members of the campus news magazine *el Don* and its website eldonnews.org. Students utilize a digital laboratory to gain practical experience in a variety of disciplines, including writing, editing, design, photography, audio, visual, multimedia and emerging technologies. Completion of CMSD 123A is required. Arranged laboratory hours (TBA) 10 hours per week.

Communications & Media Studies 123C**Advanced Intermediate News Media****Production**

Unit(s): 4.0

Class Hours: 64 Lecture, 160 Laboratory total.

Prerequisite: Communications & Media Studies 123B with a minimum grade of C or equivalent college media course.

An advanced intermediate level production-based course designed around a functioning media organization, providing students practical training in print, digital and Web-based media through work as members of the campus news magazine *el Don* and its website eldonnews.org. Students utilize a digital laboratory to gain practical experience in a variety of disciplines, including writing, editing, design, photography, audio, visual, multimedia and emerging technologies. Completion of CMSD 123B required. Arranged laboratory hours (TBA) 10 per week



**Communications & Media Studies 123D
Advanced News Media Production**

Unit(s): 4.0

Class Hours: 64 Lecture, 160 Laboratory total.

Prerequisite: Communications & Media Studies 123C with a minimum grade of C.

An advanced level production-based course designed around a functioning media organization, providing students practical training in print, digital, and web-based media through work as members of the campus news magazine *el Don* and its website eldonnews.org. Students utilize a digital laboratory to gain practical experience in a variety of disciplines, including writing, editing, design, photography, audio, visual, multimedia, and emerging technologies. Completion of CMSD 123C required. Arranged laboratory hours (TBA) 10 per week.

**Communications & Media Studies 124
Magazine Writing for Print and Digital Media**

Unit(s): 3.0

Class Hours: 48 Lecture, 80 Laboratory total.

A comprehensive course in magazine writing and production. Emphasizes a variety of conceptual, research, and nonfictional prose writing styles. Examines trends in editing, layout, and design. Students write, edit, design, and produce campus magazine. English 101 or Communications & Media Studies 121 recommended. May be repeated.

**Communications & Media Studies 160
(C-ID JOUR 160)**

Introduction to Photojournalism

Unit(s): 3.0

Class Hours: 48 Lecture total.

Explores the photographer as a journalist, focusing on theory and practice in press and publications photography, with emphasis on using the camera as a reporting and communications tool. Stresses news, feature photography, and photographic essays, including composition, impact, and creativity for newspapers, magazines, Internet, and other mass communications media.

**Communications & Media Studies 201
Visual Reporting**

Unit(s): 2.0

Class Hours: 32 Lecture, 16 Laboratory total.

Course stresses how to perceive and select visual images through work with a digital camera, a computer, and related graphics software. Students learn application and manipulation of images in digital form by focusing on telling stories through pictures and informational graphics. Students serve as visual reporters for campus media. May be repeated.

**Communications & Media Studies 210
(C-ID JOUR 210)**

Intermediate Reporting and Newswriting

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Communications & Media Studies 121 with a minimum grade of C.

This course is a continuation of Introduction to Newswriting and Reporting, and focuses on coverage of public affairs reporting including local and regional government, police, courts, school, and city boards. It includes both on- and off-campus reporting and writing, stressing news presentation for a variety of media purposes through multiple platforms.

**Communications & Media Studies 222
Writing Across Media**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101, 101H or Communications & Media Studies 121 with a minimum grade of C.

For writing students seeking a better understanding of non-fictional prose genres focusing on narrative storytelling techniques for web, Multimedia, and print. Emphasizes integration of writing skills across media formats.

**Communications & Media Studies 298A
Designing for Print and Digital Media**

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

A comprehensive course emphasizing professional standards, theory, and techniques in print, digital, and Web-based design. Students use a digital laboratory as a platform for training in design theory, visual organization, color theory, scale, unity, and use of typography. For those interested in design careers.

**Communications & Media Studies 298B
Intermediate Designing for Print and Digital Media**

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Communications & Media Studies 298A with a minimum grade of C or upon approval of instructor.

An intermediate level comprehensive course emphasizing professional standards, theory, and techniques in print, digital, and Web-based design. Students use a digital laboratory as a platform for training in design theory, visual organization, color theory, scale, unity, and use of typography. For those interested in design careers. Completion of CMSD 298A is required.

COMPUTER SCIENCE (CMPR)

**Computer Science 100
The Computer and Society**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to the area of computers and their relationship to today's information society. Examines a broad overview of topics including: hardware, software, networking, information technology, and the Internet. The student will explore the implication and effect of technology on society, careers, and ethics.

**Computer Science 104
Cooperative Work Experience Education-Occupational**

Unit(s): 1.0 - 16.0

Class Hours: 1200 Lecture total.

Supervised paid or volunteer experience in student's major including new or expanded responsibilities. 75 hours of paid work or 60 hours of un-paid work equals one unit. Course may be taken 4 times for a maximum of 16 units of occupational cooperative work experience credit. Grade: Pass/No Pass only. Open Entry/Open Exit.

**Computer Science 105
Visual BASIC Programming**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to programming and Visual BASIC. Emphasis on programming fundamentals and the creation of applications with Visual BASIC. No previous programming experience required.

**Computer Science 112
Java Programming**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of the Java language, its features and applications.

**Computer Science 117
PERL Programming and CGI**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Students will be introduced to the Perl scripting language syntax, data types, input/output, managing system processes, database programming, CGI programming, and Web programming.

**Computer Science 118
JavaScript Programming**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Students will be introduced to the syntax of JavaScript, the methods used to incorporate JavaScripts into HTML documents, and using JavaScripts to create interactive forms. Students will also learn to enhance Web pages through the use of interactive programming utilizing forms, frames, documents, windows, loops, strings, and cookies.



Computer Science 120
Introduction to Programming

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

Prerequisite: Mathematics 080 or 081 with a minimum grade of C.

Introduction to programming concepts including data types, mathematical operations, elementary input/output, and the basic control structures of sequence, selection, iteration, and functions. Program design techniques utilizing structured and object-oriented methodologies will be emphasized.

Computer Science 121 (C-ID COMP 122)
Programming Concepts

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

Prerequisite: Computer Science 120 with a minimum grade of C.

Continuing introduction to programming concepts, development of algorithms utilizing functions, classes, and the primary control structures. Program I/O; strings and arrays; data types: classes and objects. Documentation techniques.

Computer Science 124A
MCDST Preparation

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of skills needed to successfully support end-users and to successfully troubleshoot desktop environments that are running the Microsoft operating systems. Student will be provided with the skills necessary for the Microsoft Certified Desktop Support Technician (MCDST) Exams, 70-271 and 70-272. Recommended preparation: Computer Science 100.

Computer Science 125
Help Desk Skills

Unit(s): 1.5

Class Hours: 24 Lecture total.

Introduction to Help Desk “soft skills,” non-IT related business, such as effective communication, analytical thinking, diplomacy, problem solving, leadership, team building, and listening skills. In addition to learning necessary soft skills, students will be familiar with a help-desk environment, its function and organization.

Computer Science 129 (C-ID COMP 142)
Introduction to Computer Organization

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Computer Science 120 with a minimum grade of C.

Presents the organization and structure of computers at hardware and software levels: analysis and synthesis of combinatorial and sequential logic, data representation and manipulation, language structures and translation, and process administration and management. Recommended preparation: Computer Science 121 or equivalent.

Computer Science 131 (C-ID COMP 132)
Data Structures Concepts

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Computer Science 121 with a minimum grade of C.

Application of simple Data Structures Concepts (ADT's) including linked structures, stacks, queues, and trees. Use of pointers, recursion, sorting algorithms, classes, and object-oriented programming to implement data structures.

Computer Science 134B
Windows Vista Operating System

Unit(s): 3.0

Class Hours: 48 Lecture total.

Windows Vista operating system (Business and Enterprise). Course topics include installation and configuration, application installation and management, hardware configurations, file and information management, security, managing user accounts, networking, digital media, system maintenance and management, desk top management, and configuration.

Computer Science 134C
Microsoft Windows 7 Operating System

Unit(s): 3.0

Class Hours: 48 Lecture total.

Microsoft Windows 7 operating system. Course topics include installation, configuration, application installation and management, hardware configurations, file and information management, security, managing user accounts, networking, digital media, system maintenance and management, desk top management and configuration.

Computer Science 134D
Microsoft Windows 8 Operating System

Unit(s): 3.0

Class Hours: 48 Lecture total.

Microsoft Windows 8 operating system. Course topics include: installation, configuration, application installation and management, hardware configurations, file and information management, security, managing user accounts, networking, digital media, system maintenance and management, desk top management, configuration of the Metro UI and utilization of cloud storage.

Computer Science 135
Software Deployment Mechanisms

Unit(s): 1.5

Class Hours: 24 Lecture total.

Computer software deployment strategies in large computer systems.

Computer Science 136
Building a Small Office/Home Office Network

Unit(s): 1.5

Class Hours: 24 Lecture total.

Plan and build a SOHO network. Students will learn about simple file-sharing networks, wireless networks, and more advanced networking technologies that connect multiple machines and devices. Students will be able to choose the networking solution that is best suited to their needs.

Computer Science 137
Personal Computer Troubleshooting

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of techniques and methods of PC maintenance. Topics include the interaction between hardware and software; the motherboard and CPU; managing memory; disk drives; input and output and multimedia; printers; installation; management and supporting Windows; network and Internet connectivity; purchasing and building a PC; backups; viruses; and troubleshooting PC problems.

Computer Science 139
Configuration and Administration of Local Area Networks

Unit(s): 1.5

Class Hours: 24 Lecture total.

The configuration and administration of Windows-based local area networks, including planning, hardware, software, and Internet connectivity. Recommended preparation: completion of Windows server course.

Computer Science 140 (C-ID COMP 152)
Discrete Structures for Computer Science

Unit(s): 3.0

Class Hours: 48 Lecture total.

Course presents the fundamentals of discrete mathematics as applied to the computer sciences. Topics include sets, relations, functions, basic logic, proof techniques, counting, graphs, trees and probability. Recommended preparation: College Algebra.

Computer Science 141
Unix Operating System

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to computer operations using the UNIX and Linux operating systems. Includes the file system, shell programming, and filters. Recommended preparation: Computer Science 121.

**Computer Science 142****Advanced Unix**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Computer Science 141 with a minimum grade of C.

This advanced UNIX/Linux class will have a shell script component and a system administration component. Shell scripting will cover complex commands and programming constructs. Administration will cover system installation/configuration/maintenance and network servers.

Computer Science 152**HTML**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to HTML (Hypertext Markup Language) scripting and the creation of Hypertext documents. Topics will include the specification of the form and function of documents, inclusion of hypertext links, images, frames, tables, forms, JavaScript, VRML, and new features of HTML.

Computer Science 163**Microsoft Excel**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to Microsoft Excel and how it facilitates solving business problems. Covers data management and reporting using spreadsheets, charts, database tools, and macros.

Computer Science 167**Microsoft Access**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Relational Database Management using Microsoft ACCESS. Includes design, creation and maintenance of a RDBMS, reports and form generation, queries, importing and exporting data, macros, and modules using ACCESS Basic.

Computer Science 168**Advanced Microsoft Access**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Advanced Relational Database Management using development using VBA, implementation in a multiuser environment and working with Access on the Internet. Computer Science 167 or equivalent experience is recommended.

Computer Science 169**Structured Query Language (SQL)**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The course covers database concepts and the use of SQL (Structured Query Language). Completion of Computer Science 167 or equivalent is recommended.

Computer Science 170**Introduction to Oracle**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Relational database development concepts using Oracle. Includes application development using PL/SQL.

Computer Science 173**Introduction to Networking Technology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A comprehensive overview of networking technology, including a history of LAN development and the uses and benefits of LAN's. Students are introduced to LAN terminology, components, standards, and upper level protocols.

Computer Science 205**Advanced Visual Basic**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Computer Science 105 with a minimum grade of C.

Advanced programming for those seeking to further develop their skills using Visual Basic programming language. Course will cover the advanced features of the Visual Basic programming language, data structures, and advanced programming techniques available with Visual Basic.

Computer Science 206**Visual Basic for Web Development**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Web development using the Visual Basic programming language. Students will use Visual Basic and ASP to develop Internet applications, including Web browsers and databases. Completion of Computer Science 205 is recommended.

Computer Science 207A**Introduction to Business Intelligence**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Students must be familiar with basic Data Base and Spread Sheet software. Recommended course work would include courses in Access and Excel or the Business 150 course.

Understanding Business Intelligence from user, DBA and developer perspectives. Overview of the main components that comprise the Business Intelligence Application. Practical Business Solutions using Microsoft and MicroStrategy.

Computer Science 207B**Business Intelligence and Data Warehouse Architecture**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Computer Science 207A with a minimum grade of C.

Overview of the DWH architecture. Explore the DWH implementation cycle. Hands on study of the DWH development processes with practical end-to-end implementation using Microsoft and MicroStrategy.

Computer Science 213**C# Programming**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of the C# programming. Topics covered include the .NET environment, object oriented programming including inheritance and polymorphism, and writing graphical user interfaces. Completion of Computer Science 121 is recommended.

Computer Science 214**XML Programming**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to XML (Extensible Markup Language). The course covers what it is, how it works, what technologies surround it, and how it can be used in data handling and web pages. Knowledge of HTML recommended.

Computer Science 243**UNIX System Programming**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of UNIX Systems Programming. UNIX C libraries, development tools, spawning processes, inter-process communication, and programming with sockets. Completion of Computer Science 121 and 141 is recommended.

Computer Science 244**Microsoft Exchange Server**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Microsoft Exchange Server - migration and deployment, server administration and client administration. Previous knowledge of Microsoft Server and networking technologies is desirable.

Computer Science 247B**Windows Server 2008**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Installation, management, and configuration of Windows Server 2008 for managing network environments. Recommended preparation: knowledge of any client-level Windows operating system (e.g., XP, Vista).

Computer Science 247C**Windows Small Business Server (SBS) 2011 - Standard**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Installation, management and configuration of Windows Small Business Server (SBS) 2011 for managing small business (25-75 Clients) network environments. Recommended preparation: knowledge of any client-level Windows operating system (e.g., Windows 7)



Computer Science 247D
Windows Server 2012

Unit(s): 3.0

Class Hours: 48 Lecture total.

Installation, management, and configuration of Windows Server 2012 for managing network environments. Recommended preparation: knowledge of any client-level Windows operating system (e.g. Windows 7, Windows 8).

Computer Science 248
Microsoft SQL Server

Unit(s): 3.0

Class Hours: 48 Lecture total.

Microsoft SQL Server, relational database concepts, programming with SQL and Transact-SQL, stored procedures, triggers, and use of client tools. Course is designed for developers and database administrators. Basic knowledge of SQL, programming and/or database concepts is helpful.

Computer Science 249
Microsoft Internet Information Server (IIS)

Unit(s): 3.0

Class Hours: 48 Lecture total.

Tools and methods for the deployment, management, configuration, and support of Microsoft Internet Information Server (IIS).

COUNSELING (CNLS)

Counseling 021

Math Study Strategies

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course is designed to give intensive assistance to students in the areas of solving word problems, group study skills, test-taking strategies, note taking, and time management. Topics also include learning styles, active listening, and overcoming barriers to math comprehension. Grade: Pass/No Pass only.

Counseling N45

Orientation to College

Unit(s): 0.5

Class Hours: 8 Lecture total.

Introduction to college services and programs. Identification and exploration of programs and services designed to assist students entering college credit courses. Grade: Pass/No Pass only.

Counseling 090

Academic Success Strategies

Unit(s): 0.5

Class Hours: 8 Lecture total.

This course is designed to develop strategies for educational goal completion. Emphasis is placed on the purpose of higher education in society and the policies, practices, and behaviors related to success in college. Students will learn to apply principles of cognitive psychology to overcoming barriers to academic progress. Grade: Pass/No Pass only.

Counseling 100

Lifelong Understanding and Self Development

Unit(s): 2.0

Class Hours: 32 Lecture total.

Integrates concepts of lifelong understanding pertaining to career choice, educational planning, and self inventory. Skills, values, and interest assessments are utilized. Emphasis is on applying psychological principles to values clarification, goal setting, and decision making. Students analyze social/cultural conditioning and explore successful strategies for living in a diverse society.

Counseling 103

Educational Planning

Unit(s): 0.5

Class Hours: 8 Lecture total.

This course is designed to introduce students to the process of composing an educational plan. Emphasis is placed on the objective assessment of Career/Technical Education and transfer options. Students will identify an educational pathway for Career/Technical Education, AA/AS degree, and/or university transfer. Grade: Pass/No Pass only.

Counseling 104

Personal and Goal Development for Educational Planning

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course will facilitate the development of goals for educational planning. Students taking this course will receive an overview of graduation requirements, transfer requirements, academic policies, and college resources. Additional topics will include: student development theory, internal and external influences on educational success, purpose for attending college, and strategies for living a balanced life. Grade: Pass/No Pass only.

Counseling 106

Inquiries Into Higher Education

Unit(s): 1.0

Class Hours: 16 Lecture total.

A comprehensive and advanced study of selecting and completing an academic plan, developing goals and objectives and choosing a college major. Topics include study techniques, assessing interests and skills and planning a major. Grade: Pass/No Pass only.

Counseling 107

The Freshman Experience

Unit(s): 3.0

Class Hours: 48 Lecture total.

Integration of educational, socio-economic, and psychological factors that contribute to success in college. Development of personal learning style as it interfaces with the linked college classes. Development of college-level learning skills.

Counseling 110

University Transfer Research

Unit(s): 0.5 - 2.0

Class Hours: 8-32 Lecture total.

Development and enhancement of decision-making strategies for transfer students. Identification of educational/career goals. Analysis, comparison, and evaluation of university entrance, major and post-graduate requirements, and student services. On-site research/field study at universities.

Counseling 111

Learning Skills Development

Unit(s): 1.0

Class Hours: 16 Lecture total.

Application of educational/psychological principles in the development of effective learning skills for college courses. Topics also include identifying diversities of cultural influence, learning style, time management, textbook study/comprehension, note-taking, research preparation, and testing.

Counseling 114

Careers in Teaching

Unit(s): 1.0

Class Hours: 16 Lecture total.

Introduction to the teaching profession, culturally diverse student populations, career ladders and options, academic preparation, experience, and credentials required for employment, utilizing career assessments, principles of goal setting, and exposure to teaching environments and teaching professionals. Students will formulate a career objective and develop an educational plan (same as Human Development 114).

Counseling 116

Career/Life Planning and Personal Exploration

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course is designed to assist students in successfully establishing and achieving education, career, and life goals. Students are guided through a reflective process that focuses on values, interests, personality, skills, and learning styles. Career and education options are researched, and students are exposed to college resources and support services. Decision making models and goal setting techniques are examined and will be used to develop short and long term education, and career and life plans.

Counseling 120

Assertive Self Development

Unit(s): 3.0

Class Hours: 48 Lecture total.

A process for building self esteem and confidence in personal/social/professional interactions without feeling excess anger, guilt, stress or passivity. Psychological theories will be used to identify, analyze, and change ineffective thought systems and behavior.

**Counseling 121****Introduction to STEM Study Skills**

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course is designed to introduce specialized study techniques for students in science, technology, engineering, and math courses. Effective learning processes will be examined through facilitated, structured peer interaction; strategies for complex problem solving; time management; and overcoming obstacles to achievement in rigorous coursework. Grade: Pass/No Pass only.

Counseling 122**STEM Study Strategies**

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course examines and employs advanced study techniques for students in science, technology, engineering, and math courses. Effective learning processes will be strengthened through applying emotional intelligence concepts to group and classroom study, creating an exam preparation plan and formulating long and short term goals. Grade: Pass/No Pass only.

Counseling 124**College Success and Personal Growth**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Analysis of the concepts related to learning and self-development as a lifelong process. Examination of human motivation from psychological, social, and physiological perspectives. An evaluation of the roles of values, ideals, and principle centered leadership in achieving balance in life.

Counseling 125**Exploring Leadership**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This introductory course will examine the fundamental concepts of effective leadership through reading, discussion, research, and inventories for self-awareness and assessment. The course will prepare students to understand the importance of leadership in careers, communities, and society in general and to assume responsibilities of leadership roles in college and community settings.

Counseling 128**Introduction to Community Activism**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The study of issues facing communities and ways individuals can become involved in solving community problems. Introduces the study of communities in theory and practice: forces shaping past and present communities and issues defining contemporary communities. This course will facilitate the understanding of human beings as integrated physiological, psychological, and social entities within the context of communities and the process of change.

Counseling 144**Reasoning and Problem Solving**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The nature of critical thinking, models and strategies; common fallacies of reasoning, self-regulation in the thinking process; application of critical thinking to complex issues of life. Not open to students who are enrolled or have credit in Philosophy 144.

Counseling 150**Introduction to Human Services**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The history and philosophy of human services including theoretical frameworks, the function and orientation of human service organizations and the roles and qualifications of human service workers. A study of the target populations served by the human services and the professional, ethical, and cultural issues facing the human service field.

Counseling 155**Skills for the Helping Professions**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An exploration of processes for increasing mental flexibility and assisting people in getting resolution on life issues. Focus is on the theory and practice of methods which are based in inquiry, distinction, resolution, and integration. The role of self-responsibility and self-awareness will be emphasized.

Counseling 220**The Child as Victim**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Exploration of battered, molested, and neglected children from five vantage points: child, law, parents, social services, and educator (same as Human Development 220).

CRIMINAL JUSTICE (CJ)**Criminal Justice 101 (C-ID AJ 110)****Introduction to Criminal Justice**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A survey of the philosophy and history of criminal justice system (law enforcement, courts, corrections); processes of justice from detection of crime to parole; evaluation of modern criminal justice delivery systems.

Criminal Justice 102 (C-ID AJ 200)**Introduction to Corrections**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introductory course in adult corrections. Emphasis on laws, legal liabilities, and different philosophies used in dealing with the adult offender inside an institution.

Criminal Justice 103 (C-ID AJ 120)**Concepts of Criminal Law**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Criminal law definitions, classifications, basic concepts, and their application to the system of justice administration.

Criminal Justice 104**Prison Experience**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Full Background Check Required.

A practical and in-depth study of adult corrections in the United States. This class includes field trips to various jails and prisons in the surrounding area with follow-up analysis, discussion, and written assignments. Full background check required.

Criminal Justice 105 (C-ID AJ 124)**Legal Aspects of Evidence**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Origin, development, and philosophy of rules of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights.

Criminal Justice 106**Coroner Death Investigations**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The investigation of homicides, suicides, accidents, and natural deaths will be covered with special emphasis on evidence collection and identification. Special topics to be covered include sexual assault, arson fires, autopsy procedures, disaster response, gunshot wounds, stabbings, traffic collisions, buried bodies, and skeletal remains.



Criminal Justice 107 (C-ID AJ 122)
Principles and Procedures in the Criminal Justice System

Unit(s): 3.0

Class Hours: 48 Lecture total.

Role, responsibilities, interrelationships of segments in justice system; law enforcement, courts, corrections, exposure to procedures from initial entry to probation and/or parole (same as Paralegal 107).

Criminal Justice 108 (C-ID AJ 150)
Crime Scene Investigation

Unit(s): 3.0

Class Hours: 48 Lecture total.

An in-depth course on the collection and preservation of evidence. Special topics to be covered include: fingerprinting, arson, tool marks, ballistics, D.N.A. toxicology, photography and sketching.

Criminal Justice 109 (C-ID AJ 160)
Community Interaction

Unit(s): 3.0

Class Hours: 48 Lecture total.

Explores roles of criminal justice practitioners and how they are perceived by the public with an emphasis on critical thinking and decision making.

Criminal Justice 110
Street Gangs

Unit(s): 3.0

Class Hours: 48 Lecture total.

A course which focuses on street gangs in the U.S. with emphasis on California and the local area. Topics include but are not limited to Hispanic, Asian, African American, taggers, hate groups, and prison gangs.

Criminal Justice 148
Report Writing for Criminal Justice Personnel
 Formerly: Criminal Justice 048, Writing Skills for Criminal Justice Personnel

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English N60 with a minimum grade of C.

To develop practical, precise report writing techniques as well as general writing skills applicable to law enforcement and corrections.

Criminal Justice 205 (C-ID AJ 140)
Criminal Investigation Principles

Unit(s): 3.0

Class Hours: 48 Lecture total.

Basic principles of criminal investigations. Includes aspects of working with the public, specific knowledge necessary for handling crime scenes, interviews, evidence, and surveillance. Heavy emphasis on report writing.

Criminal Justice 209
Organized Crime

Unit(s): 3.0

Class Hours: 48 Lecture total.

An in-depth study of international organized crime and its social, cultural and economic impact on white collar crime and political corruption in the host country and the United States. Countries dealt with include, but are not limited to, Italy, Sicily, Japan, China, Colombia, Mexico, Old Soviet Union, Haiti, Cayman Islands, and Caribbean.

Criminal Justice 210
Drug Abuse and Criminal Justice

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of the recognition, identification, and effects of illegal drugs: opiates, marijuana, hallucinogens, depressants, and stimulants. Emphasis will also be placed on investigation techniques, use of informants, search warrants, and treatment.

Criminal Justice 220 (C-ID AJ 220)
Juvenile Delinquency and Control

Unit(s): 3.0

Class Hours: 48 Lecture total.

Techniques of handling juvenile offenders and victims' diagnosis and referral; prevention and repression of delinquency; organization of community resources; juvenile law and juvenile court procedures.

CRIMINAL JUSTICE ACADEMIES (CJA)

Criminal Justice Academies 006B
Arrest and Control Training/ACT

Unit(s): 0.1 - 0.5

Class Hours: 4-24 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

This is an advanced course using P.O.S.T. approved ACT skills training. This course meets P.O.S.T. perishable skills requirements. Grade: Pass/No Pass only.

Criminal Justice Academies 007A
Gangs, Cults and Hate Crimes

Unit(s): 0.1 - 0.8

Class Hours: 4-40 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

This course covers gangs, cults and hate crimes: ethnic gangs, organized crime, current gang trends, gangs and drugs, and drug cartels. Course information is P.O.S.T. approved. Grade: Pass/No Pass only.

Criminal Justice Academies 008A
Disaster Preparedness Training

Unit(s): 0.1 - 0.8

Class Hours: 4-40 Laboratory total.

Course instruction covers the federally mandated training for ICS 300 and 400, instruction for volunteers (CERT) and train the trainer for ICS 300 and 400. P.O.S.T. Approved. May be repeated. Grade: Pass/No Pass only.

Criminal Justice Academies 008B
Corrections Supplemental Core Course

Unit(s): 2.0

Class Hours: 96 Laboratory total.

Prerequisite: Criminal Justice Academies 100 with a minimum grade of C. Successfully completed a basic P.O.S.T. police academy.

This training meets the standards and training for corrections entry-level personnel working in adult corrections after completion of a P.O.S.T. Basic Academy. Grade: Pass/No Pass only.

Criminal Justice Academies 009B
Fitness for Law Enforcement

Unit(s): 0.1 - 0.3

Class Hours: 4-16 Laboratory total.

Training designed specifically for law enforcement and those with an interest in entering law enforcement. Grade: Pass/No Pass only.

Criminal Justice Academies 009C
Narcotics Related Training

Unit(s): 0.1 - 0.5

Class Hours: 4-24 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

Course is designed to cover all aspects of narcotic enforcement: drug recognition, drug identification, drug abuse and signs of intoxication, investigations, use of informants, legal issues, and search warrants. Grade: Pass/No Pass only.

Criminal Justice Academies 010
Pre-Employment Preparation for Law Enforcement

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Criminal justice career information will be provided. Emphasis will be on preparing students to successfully complete law enforcement pre-employment testing including oral boards, physical agility, and training academy requirements. Grade: Pass/No Pass only.

Criminal Justice Academies 010B
Supervision and Leadership

Unit(s): 0.1 - 0.8

Class Hours: 4-40 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

Course is designed to assist supervisor in areas of leadership, supervision skills, legal issues, and handling of work place investigations. Grade: Pass/No Pass only.



**Criminal Justice Academies 010C
Explorer Academy (OCLEAAA)**

Unit(s): 0.6 - 1.0

Class Hours: 32-48 Laboratory total.

This course is designed to prepare Law Enforcement Explorers for volunteer work in their respective agency. It will include report writing, ethics, criminal law, communications, tactics and close order drill. May be repeated. Grade: Pass/No Pass only.

**Criminal Justice Academies 010D
Explorer Training Academy**

Unit(s): 0.8 - 2.2

Class Hours: 40-108 Laboratory total.

Prerequisite: Must be sponsored by law enforcement agency.

This course will prepare and update Law Enforcement Explorers for volunteer work at their respective agencies. Grade: Pass/No Pass only.

**Criminal Justice Academies 010E
Youth Academy**

Unit(s): 0.5

Class Hours: 24 Laboratory total.

This course is designed to introduce Youth Academy students to the world of law enforcement. Topics include ethical policing, community policing, and the dangers of driving under the influence. The academy consists of six Saturday sessions and is offered during the summer. Grade: Pass/No Pass only.

**Criminal Justice Academies 021
P.C. 832, Laws of Arrest**

Unit(s): 0.8

Class Hours: 40 Laboratory total.

This course of instruction will provide the student with a basic knowledge of law enforcement. The course will cover history of law enforcement, arrest, and search and seizure laws. The course is P.O.S.T. certified. Grade: Pass/No Pass only.

**Criminal Justice Academies 021A
PC 832 Firearms**

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Students must pass DOJ Live-scan screening

This course of instruction will provide the student with a basic knowledge of firearms, as well as related safety and liability issues. The course is P.O.S.T. certified and presented in cooperation with the Orange County Sheriff. May be repeated. Grade: Pass/No Pass only.

**Criminal Justice Academies 026A
Training Academy Preparation**

Unit(s): 0.1 - 0.3

Class Hours: 8-16 Laboratory total.

This course is designed to prepare the student for the Basic Law Enforcement Academy, CJA 100A. It will include drill, ceremony, physical training, reporting, and speeches. Grade: Pass/No Pass only. Open Entry/Open Exit.

**Criminal Justice Academies 029A
Explosive Devices Training**

Unit(s): 0.1 - 0.8

Class Hours: 4-40 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

Training will provide updates on explosive devices: new technology, trends, and intelligence information. Grade: Pass/No Pass only.

**Criminal Justice Academies 034A
Advanced Officer Training (AOT)**

Unit(s): 0.1 - 0.8

Class Hours: 4-40 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

Course is designed to cover a variety of courses that are required and meet P.O.S.T. training mandate: communications, ethics, legal issues, basic patrol procedures and cultural diversity. Grade: Pass/No Pass only.

**Criminal Justice Academies 038A
Tactical/Weapons Training**

Unit(s): 0.1 - 0.8

Class Hours: 4-40 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

This course is designed to cover training that would be weapons-based or involve law enforcement tactics: range qualifications, nomenclature, positioning, trigger pull, and tactics planning. P.O.S.T. required training and approved. Grade: Pass/No Pass only.

**Criminal Justice Academies 038B
Basic SWAT Course**

Unit(s): 1.6

Class Hours: 80 Laboratory total.

Prerequisite: Students must be California P.O.S.T. Certified Peace Officer.

A Peace Officer Standards and Training certified course to train peace officers to become a member of a Special Weapons and Tactics team. May be repeated. Grade: Pass/No Pass only.

**Criminal Justice Academies 039A
First Aid/CPR Refresher**

**Formerly: Criminal Justice Academies 039A,
Emergency/First Aid Training**

Unit(s): 0.1

Class Hours: 8 Laboratory total.

Prerequisite: Law enforcement personnel.

Course is designed to refresh first aid and CPR training. Grade: Pass/No Pass only.

**Criminal Justice Academies 055A
Driver Simulator Training**

**Formerly: Criminal Justice Academies 055A,
Drivers Training/Force Option**

Unit(s): 0.1

Class Hours: 4 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

Course is designed to update student's skills in the area of emergency driving. Grade: Pass/No Pass only.

**Criminal Justice Academies 055B
Correction Services Assistant Academy**

Unit(s): 8.3 - 8.6

Class Hours: 400-416 Laboratory total.

Prerequisite: Sponsored as a new employee by a California law enforcement agency or screened by CJA staff.

This course is designed to train new civilian employees in all aspects of working in a criminal justice custody environment in a California jail. May be repeated. Grade: Pass/No Pass only.

**Criminal Justice Academies 055C
Park Ranger Academy III**

Unit(s): 5.1 - 5.4

Class Hours: 247-263 Laboratory total.

Prerequisite: Meet with and be approved by the County of Orange Parks and Recreation department and CJA training staff.

Course is designed to train future Park Rangers. The curriculum will include certification for PC 832 (laws of arrest), CPR, Park, Interpretation, and other Park Ranger Training. May be repeated. Grade: Pass/No Pass only.

**Criminal Justice Academies 055D
Sheriff Special Officer Academy**

Unit(s): 13.8 - 14.2

Class Hours: 664-684 Laboratory total.

Prerequisite: The course is designed for new OCSD Sheriff Special Officers. Students will need to complete the hiring process, which includes a written test, oral exam, physical agility test, background investigation, medical, and psychological testing.

In coordination with California P.O.S.T., this course provides training and certification for new OCSD Sheriff Special Officers. Grade: Pass/No Pass only.

**Criminal Justice Academies 059
Supervision**

Unit(s): 1.6

Class Hours: 80 Laboratory total.

Prerequisite: Successfully completed California P.O.S.T. basic academy.

P.O.S.T. approved course for law enforcement personnel newly appointed to a first-level supervisory position. Topics covered include effective communication with staff and community as well as definition and techniques of supervisory role in providing training to staff. Grade: Pass/No Pass only.

**Criminal Justice Academies 066
Basic Course Requalification**

Unit(s): 2.9

Class Hours: 136 Laboratory total.

Prerequisite: Successfully completed any P.O.S.T. basic academy.

To update and renew a P.O.S.T. Basic Certificate after a three year or longer break in service. Includes updates in human relations, legal update, preliminary investigations, field tactics, and the use of force and weaponry. Grade: Pass/No Pass only.



Criminal Justice Academies 068A Investigations and Report Writing

Unit(s): 0.1 - 1.6

Class Hours: 4-80 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

This course is designed to cover all aspects of investigation from a theft to homicide to include: first responder, report writing, evidence and courtroom testimony. Grade: Pass/No Pass only.

Criminal Justice Academies 069A Corrections Training

Unit(s): 0.1 - 1.1

Class Hours: 4-56 Laboratory total.

Course covers all aspects of correctional officers training as required by the State of California (STC): Policies, legal update, case law, communication skills, transportation, extractions, and weapons training. Grade: Pass/No Pass only.

Criminal Justice Academies 069B Corrections Officer CORE Course Enforcement

Unit(s): 4.0

Class Hours: 200 Laboratory total.

Prerequisite: Completion of admission requirements into the Criminal Justice Academy.

This course is certified with Standards and Training for Corrections (STC) and meets the requirements for Basic Corrections Officer Core Course. Course is presented in cooperation with the Orange County Sheriff's Department. Grade: Pass/No Pass only.

Criminal Justice Academies 076A Police K-9 Training

Unit(s): 0.1 - 5.8

Class Hours: 8-280 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

Intensive training for law enforcement personnel in the handling, deployment and care of a police service dog. Either legally mandated or employer required training. Grade: Pass/No Pass only.

Criminal Justice Academies 083A Instructor Skills

Unit(s): 0.5 - 0.8

Class Hours: 24-40 Laboratory total.

Prerequisite: California P.O.S.T. Certified Peace Officer.

Course is designed to develop teaching skills and prepare instructors for the classroom environment. Grade: Pass/No Pass only.

Criminal Justice Academies 088 Campus Law Enforcement Update

Unit(s): 0.8

Class Hours: 40 Laboratory total.

This course is designed to expand the knowledge of peace officers working a campus environment. The course will include a history of campus law enforcement, legal authority, laws and liability, responsibility in learning environment, campus conduct, and the discipline process as it relates to students. Must be a California P.O.S.T. peace officer, reserve P.O.S.T. California peace officer or employee of a California educational institution. Grade: Pass/No Pass only.

Criminal Justice Academies 099 OCSB Basic Pre-Academy

Unit(s): 0.8 - 1.6

Class Hours: 40-80 Laboratory total.

Prerequisite: To have been accepted to attend the Basic Police Academy (Criminal Justice Academies 100A) as a sponsored trainee or self-sponsored student.

Preparatory course to prepare students for the rigors of the basic police academy. May be repeated. Grade: Pass/No Pass only.

Criminal Justice Academies 100A Basic Police Academy

Unit(s): 20.0 - 21.3

Class Hours: 960-1024 Laboratory total.

Prerequisite: Students sponsored by California law enforcement agencies must meet P.O.S.T. hiring requirements. Self-sponsored students must successfully complete Criminal Justice Academies 010, Criminal Justice Academies 026A, Criminal Justice Academies 099 and required college screening procedures including interview, written test, medical evaluation, psychological evaluation and DOJ livescan. Self-sponsored students' applications will be evaluated and screened by Criminal Justice Academies Coordinator and Academy Fitness Instructor to assure students are sufficiently prepared. Self-sponsored students must meet all required prerequisites before entering or continuing the course.

Student will receive instruction in all areas of criminal justice, as required by P.O.S.T., for entry-level law enforcement officers. This course is offered in cooperation with the Orange County Sheriff's Department. Grade: Pass/No Pass only.

Criminal Justice Academies 100B Level 3 Modular Police Academy

Unit(s): 3.5 - 3.8

Class Hours: 168-184 Laboratory total.

Prerequisite: Livescan Department of Justice fingerprint screen and medical clearance

The first module of the P.O.S.T. Certified Modular Police Academy Program. May be repeated. Grade: Pass/No Pass only.

Criminal Justice Academies 100C Level 2 Modular Police Academy

Unit(s): 4.4 - 4.7

Class Hours: 212-228 Laboratory total.

Prerequisite: Successful completion of California P.O.S.T. module 3 Police Academy Program. Livescan Department of Justice fingerprint screening. Medical clearance.

The second module of the California P.O.S.T. Modular Police Academy Program. May be repeated. Grade: Pass/No Pass only.

Criminal Justice Academies 100D Level 1 Modular Police Academy

Unit(s): 9.1 - 9.5

Class Hours: 438-458 Laboratory total.

Prerequisite: Successful completion of California P.O.S.T. Certified Module 2 Police Academy Program. Livescan fingerprint clearance from California department of Justice. Medical screening.

The third and final module of the California P.O.S.T. Certified Modular Police Academy Program. May be repeated. Grade: Pass/No Pass only.

CULINARY ARTS (CULN)

Culinary Arts 062

Basic Techniques of Cooking

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Basic techniques and principles of food preparation are practiced in skill applied laboratory (same as Nutrition and Food 062).

Culinary Arts 066

Baking

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Basic techniques in the preparation and handling of ingredients to produce presentation quality baked desserts for culinary professional.

Culinary Arts 070

Beverage Service

Unit(s): 2.0

Class Hours: 32 Lecture total.

Intervention procedures by servers of alcoholic beverages. Familiarization with different types of wines and champagnes used in the food service/hospitality industry. Not offered every semester. Students must be 21 years of age to participate in all activities.

Culinary Arts 100

Introduction to Culinary Arts and Hospitality

Unit(s): 2.0

Class Hours: 32 Lecture total.

Practices and procedures for individuals interested in a career in the Culinary Arts and Hospitality or allied fields. Includes field trips to industry sites and interaction with actual working professionals in the field.



Culinary Arts 110 **Food Sanitation and Safety**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Basic principles of sanitation and safety applied to commercial food service operations to comply with state regulations for sanitation certification. Includes certification knowledge of food borne illnesses and steps of food handling; personal hygiene, procurement, preparation, storage and service; and equipment use, care, selection, and accident prevention (same as Nutrition and Food 110, Sanitation and Safety).

Culinary Arts 135 **Gourmet and International Foods**

Unit(s): 2.0

Class Hours: 24 Lecture, 24 Laboratory total.

Advanced food production techniques to be utilized in planning, costing and implementing a widevariety of catered functions.

Culinary Arts 145 **Foods Presentation Pantry/Garde Manger**

Unit(s): 2.0

Class Hours: 24 Lecture, 24 Laboratory total.

Foods presentation and cold food preparation, emphasizing knife usage for fruit and vegetables.

Culinary Arts 200 **Business Practices for Culinary Arts Professionals**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Business 080 with a minimum grade of C.

Business practices for entrepreneurs or individuals interested in employment in the culinary arts industry. Includes menu planning, marketing strategies, accounting systems and visits to industry sites.

Culinary Arts 299 **Cooperative Work Experience Education**

Unit(s): 1.0 - 4.0

Class Hours: 6 Lecture, 60-240 Laboratory total.

Prerequisite: 21 units completed in Culinary Arts or Nutrition and Food degree/certificate courses.

Supervised culinary arts field experience with new tasks in major. Student can earn 1 unit of credit for 60 hours worked up to 240 hours for 4 units. Grade: Pass/No Pass only.

DANCE (DNCE)

Dance 009

Dance Class Laboratory

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Provides studio rehearsal time to work out dance class assignments and rehearse for concert performances. New and different material each semester. 24 hours earns 0.5 unit. Requires concurrent enrollment in a dance course. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit. A combination of Dance 009 and 010 may be taken a maximum of four enrollments.

Dance 010

Advanced Dance Class Laboratory

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Provides studio rehearsal time to work out dance class assignments and rehearse for concert performances. New and different material each semester. 24 hours earns 0.5 unit. Requires concurrent enrollment in a dance course. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit. A combination of Dance 009 and 010 may be taken a maximum of four enrollments.

Dance 100

Dance History and Appreciation

Unit(s): 3.0

Class Hours: 48 Lecture total.

The development of dance in Western Europe and the U.S. from ancient times to the present. Explores dance as an emerging art form from the Renaissance to the 21st Century. Emphasizes the contemporary dance heritage of the United States.

Dance 100H

Honors Dance History and Appreciation

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An enriched honors course featuring intensive study of theatrical dance development in Western Europe and the U.S. from ancient times to the present. Utilizes writing, reading, critical thinking skills, required research, and student-initiated discussions in a seminar setting to explore dance history from cultural and aesthetic points of view.

Dance 102

Introduction to Dance Forms

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

An introduction to historical and contemporary dance forms through lecture and activity. Experience in ballet, modern, jazz, hip-hop, improvisation, folk, ethnic and/or ritual dance styles. Recommended for future teachers.

Dance 103

Dance and Movement for Educators

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Instruction in basic techniques to create dance movement appropriate for elementary and middle school pupils and its application across the curriculum. Includes introduction to theories and principles of dance as identified in the Visual and Performing Arts Academic Content Standards.

Dance 105

World Dance and Cultures

Unit(s): 3.0

Class Hours: 48 Lecture total.

Dance around the world is studied in its cultural/social context. Emphasis on the different ways dance is used to express ideas about religion, cultural identity, myths, and social ideals. Includes cultures from Africa, Asia, Europe, India, Latin America, Middle East, and North America, plus a focus on Southern California. Videotaped performances enhance the course.

Dance 106A

Introduction to Modern Dance

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An introduction to modern dance emphasizing movement technique, dance vocabulary, and creative individual expression. Includes an introduction to choreographic principles and the historical/cultural context of American modern dance. For the student with little or no dance experience. May be repeated. A combination of Dance 106A, 106B, 206A, 206B, 209, and 210 may be taken a maximum of four enrollments.

Dance 106B

Introduction to Modern Dance

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An introduction to modern dance emphasizing movement technique, dance vocabulary, and creative individual expression. Includes an introduction to choreographic principles and cultural context of American modern dance. Dance 106B is a refinement of skills learned in Dance 106A. Two semesters of Dance 106AB equals Dance 206A. May be repeated. A combination of Dance 106A, 106B, 206A, 206B, 209, and 210 may be taken a maximum of four enrollments.

**Dance 107****Dance Concert Performance**

Unit(s): 1.0

Class Hours: 8 Lecture, 40 Laboratory total.

Prerequisite: Audition.

Formal Dance Concert performance experience for dance students. Includes both rehearsal process and a minimum of three on-stage public performances. 48 hours earns one unit. Repertoire and casting vary each semester. May be repeated. Grade: Pass/No Pass only.

Dance 108A**Introduction to Ballet**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Introduction to basic ballet emphasizing movement technique, dance vocabulary, and creative individual expression. Student learns basic ballet barre exercises, center work, and short dance works. Includes an introduction to choreographic principles and cultural context of ballet. Prepares the student for Dance 108B. May be repeated. A combination of Dance 108A, 108B, 201A, 201B, 213, and 214 may be taken a maximum of four enrollments.

Dance 108B**Introduction to Ballet**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Continuation of instruction in basic ballet technique, dance vocabulary, and creative individual expression. Student learns basic ballet barre exercises, center work, and short dance works. Includes choreographic principles and cultural context of ballet. Two semesters of Dance 108AB equals Dance 201A. May be repeated. A combination of Dance 108A, 108B, 201A, 201B, 213, and 214 may be taken a maximum of four enrollments.

Dance 109A**Pilates Mat I**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An introduction to the mat exercises developed by Joseph Pilates to build strength, stability, coordination, and control in the core muscles of the body. Applicable to dance and general body conditioning. Grade: Pass/No Pass only. A combination of Dance 109A, 109B, and 109C may be taken a maximum of four enrollments.

Dance 109B**Pilates Mat II**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Continued refinement of skills learned in Pilates Mat I with an emphasis on building strength, stability, coordination, and control in the core muscles of the body. Applicable to dance and general body conditioning. Grade: Pass/No Pass only. A combination of Dance 109A, 109B, and 109C may be taken a maximum of four enrollments.

Dance 109C**Pilates Mat III**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Intermediate level course in the mat exercises developed by Joseph Pilates to build strength, stability, coordination, and control in the core muscles of the body. Applicable to dance and general body conditioning. Grade: Pass/No Pass only. A combination of Dance 109A, 109B, and 109C may be taken a maximum of four enrollments.

Dance 110**Beginning Mexican Folk Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Introduces techniques, forms, and regional/historical backgrounds of dances from various regions of Mexico. Students will perform at least 3 different traditional dances. A combination of Dance 110, 111, and 117 may be taken a maximum of four enrollments.

Dance 111**Intermediate Mexican Folk Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Continued study of techniques, forms, and regional/historical backgrounds of dances from various regions of Mexico. Students will perform at least 3 different and more complex traditional dances. Dance 110 recommended. A combination of Dance 110, 111, and 117 may be taken a maximum of four enrollments.

Dance 112**Ethnic Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Introduction to the dance movement and techniques of selected ethnic groups from around the world, with emphasis on skill development and cultural/historical context. Focus chosen from African dance, Asian court or folk dance, dance forms from India, European folk dance, or Polynesian dance. No experience necessary.

Dance 113A**Flamenco Dance I**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Introduction to dance movements, techniques, and terminology of Flamenco dance, music, rhythms, and song. Emphasis on dance skills and cultural relationship between Spain and the Gypsies. Prepares the student for Dance 113B. A combination of Dance 113A and 113B may be taken a maximum of four enrollments.

Dance 113B**Flamenco Dance II**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Dance 113A with a minimum grade of C.

Continued study of Flamenco culture through dance, music, and song, with emphasis on particular rhythms. Students will explore the dynamics and structure of these rhythms and learn a choreographed dance. Repertoire varies each semester. A combination of Dance 113A and 113B may be taken a maximum of four enrollments.

Dance 117**Introduction to Middle Eastern Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Introduction to Middle Eastern Dance, including belly dance and folk dance forms. Emphasis is on movement technique, vocabulary, and creative expression. Also explores the fusion of Western and Middle Eastern dance forms. No experience necessary. Content varies each semester. A combination of Dance 110, 111, and 117 may be taken a maximum of four enrollments.

Dance 118**Introduction to Caribbean and Latin Dance Styles**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An introduction to Caribbean and Latin social dance styles, including musicality, partnering, and patterns. Emphasis is on movement technique, vocabulary, and creative expression. Historical and contemporary forms such as Salsa, Merengue, Rhumba, Cumbia and Tango are studied. Content varies each semester. A combination of Dance 118, 123, and 124 may be taken a maximum of four enrollments.

Dance 119A**Introduction to Jazz Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Introduction to jazz dance technique emphasizing elementary movement technique, vocabulary, and creative expression. Includes an introduction to composition and cultural context of jazz. For students with little or no dance experience. A combination of Dance 119A, 119B, 219A, 219B, 220, and 221 may be taken a maximum of four enrollments.

**Dance 119B****Introduction to Jazz Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

A refinement of basic jazz dance, emphasizing movement technique, vocabulary, and creative expression. Includes composition, the cultural context of jazz, and contemporary jazz dance forms. Movement repertoire differs from 119A. A combination of Dance 119A, 119B, 219A, 219B, 220, and 221 may be taken a maximum of four enrollments.

Dance 122**Commercial Contemporary Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Instruction for the advanced dance student in contemporary commercial dance, including the technical steps, styles, audition techniques, and performance skills necessary to be a successful dancer in commercial settings, such as industrials, cruise ships, music videos, etc.

Dance 123**Introduction to Salsa Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An introduction to Salsa dance, including musicality, partnering and patterns. Emphasis is on movement technique, dance vocabulary, and creative expression. Historical and contemporary forms are studied. Content varies each semester. A combination of Dance 118, 123, and 124 may be taken a maximum of four enrollments.

Dance 124**Intermediate Salsa Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Continued study in salsa dance, including musicality, partnering, and patterns. Emphasis is on movement technique, vocabulary, and expression. Includes more complicated movements, complex patterns, and advanced dance combinations. Content varies each semester. Introduction to Salsa recommended. A combination of Dance 118, 123, and 124 may be taken a maximum of four enrollments.

Dance 130**Dance Improvisation**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An introduction to structured dance improvisation, emphasizing movement invention, creative problem solving, group dynamics, and contact improvisation. Prior completion of dance technique course highly recommended. A combination of Dance 130, 202A, and 202B may be taken a maximum of four enrollments.

Dance 132**Dance Stretch**

Unit(s): 0.5

Class Hours: 4 Lecture, 12 Laboratory total.

Instruction in sustained and specific stretch designed to improve overall body flexibility, increase range of motion, and improve body alignment. Supplemental course for all levels of dance technique. Grade: Pass/No Pass only.

Dance 140**Dance Repertory Workshop**

Unit(s): 1.0

Class Hours: 9 Lecture, 27 Laboratory total.

Intensive course which emphasizes learning selected repertory. Students learn one or more complete choreographic works of concert quality with instruction in specific performance styles, culminating in a public performance. Grade: Pass/No Pass only.

Dance 180**Professional Studio Practices**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Learn the procedures, management, and expectations of dancers working in private studios. Applicable for both the dance educator and the professional dancer.

Dance 201A**Ballet I**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Introduction to ballet technique and terminology, including basic barre work, center work, and combinations en diagonale. Includes basic alignment, use of turnout, coordination, and ballet terminology. Dance 201A prepares the student for Dance 201B. May be repeated. A combination of Dance 108A, 108B, 201A, 201B, 213, and 214 may be taken a maximum of four enrollments.

Dance 201B**Ballet II**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Continuation of beginning ballet technique and terminology, including barre work, center work, and combinations en diagonale. Includes basic alignment, use of turnout, coordination, and ballet terminology. Dance 201B utilizes additional combination work and prepares the student for Dance 213. Dance 201A recommended. May be repeated. A combination of Dance 108A, 108B, 201A, 201B, 213, and 214 may be taken a maximum of four enrollments.

Dance 202A**Choreography**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

A class for the general student that defines and explores the elements involved in creating a dance. Students will develop choreographic skills in order to be able to express their ideas through dance movement. Compositions created by students will be performed in the studio. For non-majors only. A combination of Dance 130, 202A, and 202B may be taken a maximum of four enrollments.

Dance 202B**Choreography for Dance Majors**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

A composition class for dance majors that defines and explores the elements involved in creating a dance. Students will develop choreographic skills emphasizing individual expression of ideas through dance movement. Solo compositions created by students performed in dance studio. Dance majors. A combination of Dance 130, 202A, and 202B may be taken a maximum of four enrollments.

Dance 204A**Dance Production**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Audition.

Concert Dance production experience culminating in public performances in Phillips Hall Theater as part of the Spring Student/Faculty Dance Concert. Includes production basics, with an emphasis on working with faculty/student choreographers to create original dances. Focus on performance techniques.

Dance 204B**Dance Production**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Dance 202A or 202B with a minimum grade of C and audition.

Concert Dance production experience for students creating and producing original choreography for and/or performing in the SAC dance concert. Includes production basics with an emphasis on creating, rehearsing, and performing dances. Focus on choreography.

Dance 205**Performance Ensemble**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Audition.

Pre-professional ensemble to provide performance experience for advanced students. 64 hours earns 2 units. Repertoire and casting vary each semester. Requires audition prior to enrollment. May be repeated. Grade: Pass/No Pass only.

**Dance 206A****Modern Dance I**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

An introduction to modern dance emphasizing movement technique, dance vocabulary, and creative individual expression. Includes an introduction to choreographic principles and cultural context of modern dance. Students learn modern dance exercises and short works of dance. Prepares the student for Dance 206B. A combination of Dance 106A, 106B, 206A, 206B, 209, and 210 may be taken a maximum of four enrollments.

Dance 206B**Modern Dance II**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Dance 206A with a minimum grade of C or Audition.

Continued study in modern dance emphasizing movement technique, dance vocabulary, and creative individual expression. Includes an introduction to choreographic principles and cultural context of modern dance. Videos, concerts, and master classes enrich the course. Dance 206B is a continuation and refinement of work begun during Dance 206A. A combination of Dance 106A, 106B, 206A, 206B, 209, and 210 may be taken a maximum of four enrollments.

Dance 209**Modern Dance III**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Provides the continuing modern dance student opportunity to concentrate on more advanced steps and development of technical skills. Emphasizes combinations, choreography, and performance style. Dance 206 recommended. A combination of Dance 106A, 106B, 206A, 206B, 209, and 210 may be taken a maximum of four enrollments.

Dance 210**Modern Dance IV**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Continuing study of technique including more complicated combinations and advanced material. Emphasizes movement, expression, composition techniques, and comparison of modern dance styles. Dance 209 recommended. A combination of Dance 106A, 106B, 206A, 206B, 209, and 210 may be taken a maximum of four enrollments.

Dance 213**Ballet III**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Study of ballet technique and terminology on the intermediate level. Course includes center adagio, jumps with beats, pirouettes, and movement combinations. Intermediate variations are also learned and performed in class. A combination of Dance 108A, 108B, 201A, 201B, 213, and 214 may be taken a maximum of four enrollments.

Dance 214**Ballet IV**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Continuing study of technique and terminology. Emphasizes longer, more intricate movement combinations and development of balletic style. Stresses expression and technique at high/intermediate level. Includes ballet history and comparisons of various ballet styles. A combination of Dance 108A, 108B, 201A, 201B, 213, and 214 may be taken a maximum of four enrollments.

Dance 219A**Jazz Dance I**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Introduction to jazz dance emphasizing movement technique, vocabulary, and creative expression. Includes an introduction to choreographic principles and cultural context of jazz. Historical and contemporary forms are studied. Videos, concerts, and master classes enrich the course. A combination of Dance 119A, 119B, 219A, 219B, 220, and 221 may be taken a maximum of four enrollments.

Dance 219B**Jazz Dance II**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Continued study in jazz dance emphasizing movement technique, vocabulary, and creative expression. Includes an introduction to choreographic principles and cultural context of jazz. Historical and contemporary forms are studied. Movement repertoire differs from 219A. A combination of Dance 119A, 119B, 219A, 219B, 220, and 221 may be taken a maximum of four enrollments.

Dance 220**Jazz Dance III**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Instruction for the continuing jazz dance student in intermediate jazz steps and further development of technical skills. Emphasis will be placed on combinations, choreography, performance style, and cultural context of jazz. Historical and contemporary forms are studied. Dance 219B recommended. May be repeated. A combination of Dance 119A, 119B, 219A, 219B, 220, and 221 may be taken a maximum of four enrollments.

Dance 221**Jazz Dance IV**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Continuing study of jazz dance concentrating on advanced combinations with emphasis on movement technique, vocabulary, and performance style. Includes study of choreography, cultural context of jazz, and comparisons of historical and contemporary jazz styles. Dance 220 recommended. May be repeated. A combination of Dance 119A, 119B, 219A, 219B, 220, and 221 may be taken a maximum of four enrollments.

Dance 232**Partnering**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Completion of a prior dance class or concurrent enrollment and audition.

The study of partnering in modern, jazz, and classical choreography. Includes duets, groups, and choreography involving any body contact or shifting of weight from one individual to another. Experience differs each semester.

Dance 240A**Repertory I**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Audition.

Students develop and improve rehearsal and performance skills through learning a repertoire of dances. Includes preparation for public concerts and performances at different venues. Dances vary each semester. May be repeated.

Dance 240B**Repertory II**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Audition.

Continued refinement of rehearsal and performance skills through learning a more difficult repertoire of dances. Includes preparation for public concerts and performances at different venues. Dances vary each semester. May be repeated.

**Dance 250A****Hip Hop Dance I**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Introduction to hip hop dance emphasizing movement technique, vocabulary, and creative expression. Includes an introduction to choreographic principles, improvisation, and cultural context of hip hop. A combination of Dance 250A, 250B, and 251 may be taken a maximum of four enrollments.

Dance 250B**Hip Hop Dance II**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Continued study in hip hop dance emphasizing movement technique, vocabulary, and creative expression. Includes improvisation, more difficult combinations, student compositions, and the cultural context of hip hop. Movement repertoire differs from 250A. A combination of Dance 250A, 250B, and 251 may be taken a maximum of four enrollments.

Dance 251**Hip Hop Dance III**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Instruction for the continuing hip hop dance student in intermediate level hip hop dance steps and further development of technical skills. Emphasis will be placed on combinations, choreography, performance style, and cultural context of hip hop. Dance 250B recommended. A combination of Dance 250A, 250B, and 251 may be taken a maximum of four enrollments.

Dance 260**Somatic Practices in Dance**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

This course uses the principles of Bartenieff Fundamentals to develop efficient movement patterning within the body. Encourages and supports personal expression, meaning-making, and an integration of the body and mind. Includes core concepts of the Laban Movement Analysis System that embody all movement possibilities through Body, Effort, Shape, and Space. Knowledge in Anatomy/Physiology or Kinesiology and/or training in Intermediate/Advanced Dance Techniques are highly recommended. A combination of Dance 260, 261, 262, and 263 may be taken a maximum of four enrollments.

Dance 261**Somatic Practices in Modern Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Dance 260 with a minimum grade of C

Application of somatic practices learned in Dance 260 to intermediate/advanced level modern dance techniques. Grade: Pass/No Pass only. A combination of Dance 260, 261, 262, and 263 may be taken a maximum of four enrollments.

Dance 262**Somatic Practices in Ballet**

Unit(s): 1.0

Class Hours: 16 Lecture, 24 Laboratory total.

Prerequisite: Dance 260 with a minimum grade of C

Application of somatic practices learned in Dance 260 to intermediate/advanced level ballet techniques. Grade: Pass/No Pass only. A combination of Dance 260, 261, 262, and 263 may be taken a maximum of four enrollments.

Dance 263**Somatic Practices in Jazz Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Dance 260 with a minimum grade of C

Application of somatic practices learned in Dance 260 to intermediate/advanced level jazz dance techniques. Grade: Pass/No Pass only. A combination of Dance 260, 261, 262, and 263 may be taken a maximum of four enrollments.

Dance 270**Dance Internship**

Unit(s): 2.0

Class Hours: 8 Lecture, 72 Laboratory total.

Prerequisite: By recommendation of dance department chair.

Directed study at selected locations providing workplace experience as performer, choreographer, production assistant, dance management intern, dance team assistant, dance studio assistant, dance teacher, or somatics teaching assistant. Before placement, skills are assessed to match abilities with project or job needs. Experience differs each semester. Grade: Pass/No Pass only.

Dance 296**Special Studies in Modern Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An intermediate/advanced level course offering individualized and accelerated instruction in modern dance techniques. Grade: Pass/No Pass only. A combination of Dance 296, 297, and 298 may be taken a maximum of four enrollments.

Dance 297**Special Studies in Jazz Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

An intermediate/advanced level course offering individualized and accelerated instruction in jazz dance techniques.

Grade: Pass/No Pass only. A combination of Dance 296, 297, and 298 may be taken a maximum of four enrollments.

Dance 298**Special Studies in Dance**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Must complete two dance courses in ballet, jazz or modern dance.

An intermediate/advanced level course offering individualized and accelerated instruction in dance techniques. Grade: Pass/No Pass only. A combination of Dance 296, 297, and 298 may be taken a maximum of four enrollments.

DIESEL (DSL)**Diesel 008****Oxyacetylene-Arc Welding**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Technical knowledge and basic skills needed for occupational oxyacetylene and arc welding processes and applications. Students must furnish safety equipment (same as Automotive Technology 008 and Welding 008).

Diesel 009**Chassis Overhaul**

Unit(s): 8.0

Class Hours: 64 Lecture, 192 Laboratory total.

Inspection, service and overhaul procedures used on medium and heavy duty axles, steering and suspension components, clutches, transmissions, drivelines, differentials, air brake, and ABS systems.

Diesel 010**Bendix Air Brake System Service**

Unit(s): 1.5

Class Hours: 24 Lecture total.

Theory of operation of Bendix Medium and Heavy-Duty On-Highway Vehicle Air Brake Systems. Service, repair, and troubleshooting procedures used by the industry will be covered.

Diesel 013**Allison Transmission Service**

Unit(s): 5.0

Class Hours: 64 Lecture, 64 Laboratory total.

A course of study designed to familiarize the student with the operation, service, overhaul, and troubleshooting procedures of Allison transmissions. Students must furnish hand tools and safety equipment.

**Diesel 015****Introduction to Heavy-Duty Mobile Hydraulics**

Unit(s): 4.0

Class Hours: 64 Lecture, 64 Laboratory total.

This course presents operation and service procedures for hydraulic devices found on heavy-duty diesel equipment and trucks. Students must furnish tools and own safety equipment.

Diesel 021**Mid-Range Diesel Engine Service**

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

Troubleshooting and service and repair techniques for medium-duty diesel engines and fuel systems. Students must furnish own safety equipment.

Diesel 022**Electronics Fundamentals**

Unit(s): 5.0

Class Hours: 64 Lecture, 64 Laboratory total.

Introduction to the basic operating principles of electrical and electronic devices used in motor vehicles. Suggested preparation: Automotive Technology 002 or 006 (same as Automotive Technology 022).

Diesel 024**Electrical Systems**

Unit(s): 5.0

Class Hours: 64 Lecture, 64 Laboratory total.

Theory, operation, diagnosis, and maintenance of the following systems and components: lighting, instrument, and accessory circuits. Students furnish hand tools and safety equipment. Suggested preparation: Diesel 022.

Diesel 025**Diesel and Heavy-Duty Vehicle Engine****Overhaul**

Unit(s): 8.0

Class Hours: 64 Lecture, 192 Laboratory total.

Overhaul and repair of heavy-duty diesel engines. Designed to acquaint the student with the theory of operation, trouble diagnosis, service and repair of two and four-cycle heavy duty diesel engines.

Diesel 032**Diesel Fuel Injection Systems Service**

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Theory, testing, and service of mechanical and electronic diesel fuel injection systems. Engine tune-up and troubleshooting techniques on current production heavy-duty diesel engines. Students must furnish safety equipment and protective clothing.

Diesel 040**Diesel Electrical Systems**

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Diagnosis, service, and repair procedures for starting, charging, lighting, and instrument systems. Students furnish safety equipment and protective clothing.

Diesel 050**Transport Refrigeration**

Unit(s): 8.0

Class Hours: 96 Lecture, 96 Laboratory total.

Theory and operation of truck, trailer, and container single and multi-temperature refrigeration, electrical and microprocessor control systems used on current production Carrier and Thermo King units. Service, repair, and troubleshooting procedures used by the industry will be covered.

Diesel 055**Marine Container Refrigeration**

Unit(s): 4.0

Class Hours: 64 Lecture, 64 Laboratory total.

Theory of operation of refrigeration, electrical, electronic and microprocessor controller systems used by Thermo King and Carrier on current production marine container refrigeration units. Service, repair, and troubleshooting procedures used by the industry will be covered.

Diesel 062**Air Conditioning and Heating**

Unit(s): 3.0

Class Hours: 36 Lecture, 60 Laboratory total.

Operation, testing, and servicing of air conditioning and heating systems. Students must furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006 (same as Automotive Technology 062).

Diesel 068**Transit Vehicle Engines**

Unit(s): 0.8

Class Hours: 27 Lecture, 15 Laboratory total.

Designed to acquaint the student with the basic theory of operation, diagnostic and troubleshooting techniques, repair and service of engines. Grade: Pass/No Pass only.

Diesel 069**Paratransit Driver Training**

Unit(s): 1.0

Class Hours: 30 Lecture, 24 Laboratory total.

Orientation to paratransit bus system defensive driving techniques, equipment orientation, performance of pre-operation, inspections, customer escorting techniques, operation of lifts, and proper use of equipment restraints, Americans with Disabilities Act policies and procedures, and Orange County Transit Authority requirements for servicing the disabled. Grade: Pass/No Pass only.

Diesel 070**Bus Driver Training**

Unit(s): 2.3

Class Hours: 58 Lecture, 56 Laboratory total.

Orientation to the fixed route bus system, defensive driving techniques, equipment orientation, including performance of pre-trip inspections, Americans with Disabilities Act (ADA) policies and procedures, customer service techniques, and an introduction to internal system knowledge such as transit terminology and bus route information. Students must pass all written exams with a score of 80% or better. Grade: Pass/No Pass only.

Diesel 071**Introduction to Coach Operations**

Unit(s): 0.3

Class Hours: 18 Lecture total.

To provide students with an overview of the Certified Maintenance Course. Covers ground rules and expectations. Discusses safety issues and familiarizes students with the proper use of hand tools. Includes overview of the functions and procedures for the preventive maintenance on a bus. Grade: Pass/No Pass only.

Diesel 072**Transit Vehicle Electrical Systems**

Unit(s): 0.2

Class Hours: 26 Lecture, 10 Laboratory total.

To provide students with functions and components of the electrical systems on a bus. Principles of electricity and safety with an overview of troubleshooting techniques for both conventional and computer controlled buses. Grade: Pass/No Pass only.

Diesel 073**Transit Vehicle Air Systems**

Unit(s): 0.2

Class Hours: 8 Lecture, 4 Laboratory total.

To provide students with functions and components of the air systems on a bus. Principles of air supply and safety with an overview of troubleshooting techniques for both conventional and computer controlled buses. Grade: Pass/No Pass only.

Diesel 075**Transit Vehicle Automatic Transmissions**

Unit(s): 0.5

Class Hours: 18 Lecture, 6 Laboratory total.

Designed to acquaint the student with the basic theory of operation, diagnostic and troubleshooting techniques, repair and service of automatic transmissions. Grade: Pass/No Pass only.

Diesel 076**Engine Repair**

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

This course deals with teardown, assembly, and repair of modern automotive engines. Students furnish hand tools and safety equipment. Suggested preparation: Automotive Technology 002 or 006 (may be taken concurrently).

**Diesel 077****Transit Vehicle Heating, Ventilation, Air Conditioning**

Unit(s): 0.5

Class Hours: 18 Lecture, 6 Laboratory total.

Designed to acquaint the student with the basic theory of operation, diagnostic and troubleshooting techniques, repair and service of heating, air conditioning and ventilating buses. Grade: Pass/No Pass only.

Diesel 078**Transit Vehicle Drive Train Suspension**

Unit(s): 0.4

Class Hours: 15 Lecture, 6 Laboratory total.

Designed to acquaint the student with the basic theory of operation, diagnostic and troubleshooting techniques, repair and service of drive train suspension. Grade: Pass/No Pass only.

Diesel 079**Transit Vehicle Wheelchair Lifts**

Unit(s): 0.2

Class Hours: 8 Lecture, 4 Laboratory total.

Designed to acquaint the student with the basic theory of operation, diagnostic and troubleshooting techniques, repair and service of wheelchair lifts. Grade: Pass/No Pass only.

Diesel 080**Transit Vehicle Air Brake Systems**

Unit(s): 0.3

Class Hours: 10 Lecture, 8 Laboratory total.

Diagnosis, service and repair procedures of air brake systems used on Orange County Transportation buses. Actual work with components and controls on the air brake systems is accomplished. Grade: Pass/No Pass only.

Diesel 095**Diesel Lab Experience**

Unit(s): 0.5 - 4.0

Class Hours: 192 Laboratory total.

Prerequisite: Completion of corresponding Diesel course with a minimum grade of C.

This diesel lab course is designed to give the diesel student lab experience in a diesel course previously completed with a grade of C or better. The student must be enrolled by the instructor. Students must furnish hand tools and safety equipment. May be repeated to a maximum of 4 units. Grade: Pass/No Pass only. Open Entry/Open Exit.

EARTH SCIENCE (ERTH)**Earth Science 110****Introduction to Earth Science**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A study of the processes that shape and form the Earth and define its place in the solar system. Introduction to the sciences of geology, oceanography, meteorology, and astronomy. Not open to students who are enrolled, or have credit in Geology 101 or Geography 101.

Earth Science 110H**Honors Introduction to Earth Science**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An intensive study of the processes that shape and form the Earth and define its place in the solar system. Introduction to the sciences of geology, oceanography, meteorology, and astronomy. Not open to students who are enrolled or have credit in Geology 101 or Geography 101.

Earth Science 115**Earth Science for Educators**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

The study of the dynamic forces shaping the earth, including its oceans and atmosphere. This class is open to all majors but is oriented towards enhancing the earth science knowledge of future teachers. Also includes an introduction to the solar system. Not open to students who are enrolled or have credit in Earth Science 110, Geology 101 or Geography 101.

Earth Science 150**Introduction to Oceanography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory study of the ocean and its topography, sediments, circulation, shoreline processes, biological productivity and mineral resources (same as Geology 150).

Earth Science 150H**Honors Introduction to Oceanography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Enriched and intensive study of the ocean's topography, sediments, circulation, shoreline processes, biological productivity, and mineral resources. Course is taught in a seminar format to provide optimal active learning and critical thinking (same as Geology 150H).

ECONOMICS (ECON)**Economics 120 (C-ID ECON 202)****Principles/Macro**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Mathematics 060 or Mathematics 061 with a minimum grade of C.

Introduction to macroeconomics, including basic economic concepts, analysis of markets, national income accounting, employment, short run business cycle fluctuations, long run growth trends, monetary and fiscal policies, and international economic issues. Intended for economics, business, and certain engineering/computer science majors. Mathematics 080 or 081 is recommended.

Economics 121 (C-ID ECON 201)**Principles/Micro**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Mathematics 060 or Mathematics 061 with a minimum grade of C.

Introduction to microeconomics, including basic economic concepts, analysis of markets, efficiency, consumer and firm behavior, industry structures, market failure, and resource markets. For economics, business, and certain engineering and computer science majors. Mathematics 080 or 081 is recommended.

EDUCATION (EDUC)**Education 100****Introduction to Education**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to the field of education including historical and philosophical perspectives; school governance and funding; societal influences and student diversity; school curriculum standards; professional standards and teaching performance expectations. Students will independently complete a minimum of 45 hours of Service Learning (structured observation and internship/fieldwork) in local public elementary school classrooms during the semester.

Education 113**Tutoring Reading in Elementary Schools Formerly: Human Development 113, Tutoring Reading in Elementary Schools**

Unit(s): 1.0

Class Hours: 16 Lecture total.

An examination of effective tutoring strategies, focusing on the support for reading skills of elementary age children. Students are placed in local K-8 classrooms to gain experience with school-age children. 20+ hours service learning hours required in addition to lecture hours. Student must provide proof of negative TB screening

Education 204**Personal Proficiency in Educational Technologies for Secondary Teachers**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Development of personal proficiency in educational technology to facilitate the teaching process. Training in computer hardware and software terminology; spreadsheets, word processing, publication, and presentation applications; Internet search and retrieval; information literacy; electronic communication and awareness of legal and ethical issues.

**Education 205****Personal Proficiency in Educational Technology for Elementary Teachers**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Development of proficiency in educational technology to facilitate the teaching process. Training in computer hardware and software terminology; spreadsheet, word processing, publication, and presentation applications; Internet search and retrieval; information literacy; electronic communication and awareness of legal and ethical issues.

Education 209**Roles and Responsibilities of the Special Education Paraprofessional**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course is designed to train persons who work as classroom paraprofessional/teaching assistants in the public schools. The course provides an overview of paraprofessional roles and responsibilities including legal, instruction, evaluation and behavioral issues. Supports current legislation for paraprofessionals.

Education 210**The Teaching Experience: Secondary Education**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to the history, philosophy, and sociology of secondary education. This course will cover the California Teaching Performance Expectation and Assessment; needs of special populations, English learners, and struggling readers; content standards; and major curriculum reform documents. Students participate in 40 hours of structured observation and internship in a local secondary classroom.

Education 211**Classroom Practices for Diverse Learners**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prepares individuals to assist teachers in various settings to support diverse learners (individuals who have disabilities, are second language learners, are gifted, etc.). Topics will include lesson planning, adapting academics: reading, mathematics, science, art, job coaching, behavioral support, etc.

EMERGENCY MEDICAL TECHNICIAN (EMT)**Emergency Medical Technician 101****Emergency Medical Technician**

Unit(s): 7.0

Class Hours: 96 Lecture, 48 Laboratory total.

Prerequisite: Concurrent enrollment in Emergency Medical Technician 105. American Heart Association CPR Healthcare Provider Card.

Basic course for EMT. Satisfies requirements for County/State EMS Authority. Prepares student to take O.C.E.M.S./National Registry certifying exam for state certification.

Emergency Medical Technician 102**EMT Transition Series**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Concurrent enrollment in Emergency Medical Technician 101.

This course provides depth and breadth of foundational knowledge of the National EMS Education Standards derived from the National Scope of Practice Model for entry-level EMTs.

Emergency Medical Technician 105**Clinical EMT Skills Laboratory**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Concurrent enrollment in Emergency Medical Technician 101

Supervised use of Skills Lab through supplemental learning to assist the student in development of clinical competency and mastery of psychomotor skills as addressed in course Emergency Medical Technician 101. Hours verified by instructor. Grade: Pass/No Pass only.

Emergency Medical Technician 111**Recertification for EMT I-Basic**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Valid EMT I (Basic) certificate or equivalent within past two years. Valid CPR card: Health Care Provider

Update emergency medical techniques, equipment, and EMSA policies. Meets state requirements for EMT-I Basic recertification.

ENGINEERING (ENGR)**Engineering 011****Basic Mechanical Blueprint Reading**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Reading and interpreting blueprints for manufacturing technologies (same as Manufacturing Technology 011).

Engineering 012**AEC Blueprint Reading**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Reading and interpreting blueprints for Architecture, Civil Engineering, and Construction (AEC). Information in this course provides preparation for more advanced AEC coursework. Recommended for students with no prior course(s) in blueprint reading.

Engineering 027**Electronic Drafting**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Fundamentals of electronic drafting. Includes symbols, schematics, cable drawings, logic diagrams, printed circuit board layout, and electromechanical design.

Engineering 051**Basic Technical Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Principles of mechanical drawing including projections, views, dimensions, and conventions, utilizing sketches and computer drafting program. Designed for students with no prior mechanical drawing experience. Suggested preparation: Engineering 183 (may be taken concurrently).

Engineering 100A**Introduction to Engineering**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Introduction to major fields of engineering (including mechanical, electrical, industrial, biomedical, aerospace, and others). Includes an overview of academic programs, career information and preparation requirements, virtual or in person field trips, projects, and guest speakers.

Engineering 100B**Introduction to Architecture/Civil****Engineering /Construction (AEC)**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Introduction to the Architectural, Civil Engineering, Construction (AEC) fields. Includes an overview of academic programs, career information and preparation requirements, virtual or in person field trips, and guest speakers.

Engineering 103**Solidworks Basic Solid Modeling**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course in parametric solid modeling. This course will include a solid modeling overview, solid model construction techniques (extrude, revolve, fillet, chamfer, etc), including the preparation of individual solid components and basic solid model assemblies (same as Manufacturing Technology 103). Suggested Preparation: Engineering 011.

**Engineering 104****Solidworks Intermediate Solid Modeling**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Engineering 103 with a minimum grade of C.

Intermediate course for solid modeling, includes a review of the introductory class and changes to the Solidworks interface. Instruction in the use of intermediate Solidworks part modeling skills such as assembly modeling and sub-assemblies is included (same as Manufacturing Technology 104).

Engineering 105**Solidworks Advanced Solid Modeling**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Engineering 104 with a minimum grade of C.

Advanced course for solid modeling includes a review of the intermediate class and changes to the Solidworks interface. Instruction in the use of Solidworks part modeling, assembly modeling, sub-assemblies, advanced photoworks and advanced animator emphasized (same as Manufacturing Technology 105).

Engineering 110**Advanced CAD Applications**

Unit(s): 0.5 - 4.0

Class Hours: 192 Laboratory total.

Individual skill development for advanced students desiring to learn special applications using college licensed computer drafting and design software. Each 0.5 unit of credit requires 24 laboratory hours. Suggested preparation: Engineering 184. Grade: Pass/No Pass only. Open Entry/Open Exit.

Engineering 112**Society and the Built Environment**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introductory course that explores the far-reaching impacts of society on the built environment. A multidisciplinary examination of western and non-western society's ethics, economics, culture, ecology, processes, technology and tools on trends and developments of the built environment.

Engineering 114**Geometric Dimensioning and Tolerancing**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Drawing interpretation utilizing geometric dimensioning and tolerancing (ANSI Y14.5) as applied in engineering, manufacturing, and inspection. Suggested preparation: Engineering 011 or Engineering 122 (same as Manufacturing Technology 114).

Engineering 115**Cooperative Work Experience Education-Occupational**

Unit(s): 1.0 - 16.0

Class Hours: 1200 Lecture total.

Supervised paid or volunteer experience in student's major including new or expanded responsibilities. 75 hours of paid work or 60 hours of un-paid work equals one unit. A maximum of 4 units is allowed per semester. Limitation of 16 units in occupational cooperative education courses. Grade: Pass/No Pass only.

Engineering 118**Plane Surveying**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

History and careers in surveying. Introduction to survey measurements, distance, direction and elevations. Traverse computations and adjustment. Recording field measurements. Assists in passing the land surveyor-in-training exam. Completion of Math 160 recommended.

Engineering 119**Advanced Plane Surveying**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Engineering 118 with a minimum grade of C; instructor may waive if student can show proof of industry experience in surveying equal or greater than Engineering 118.

Emphasis on coordinate geometry calculations. Route surveying with horizontal and vertical curves. Topographic surveying and mapping. Construction surveying. Introduction to geospatial technologies, boundary surveying and surveys of public lands. Field surveying projects. Assists student in passing the state land surveyor-in-training exam. Previous successful completion of Math 160 recommended.

Engineering 122**Engineering Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Principles of engineering drawing: projections, views, sections, dimensions, tolerancing, assemblies, manufacturing processes, engineering drafting practices. Utilizing sketches and computer drafting program. Suggested preparation: Engineering 051 and 183. (Engineering 183 may be taken concurrently.)

Engineering 124**Advanced Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Advanced topics in engineering drawing and design - working drawings, fasteners, cams, gears, auxiliary views, advanced sectioning, dimensioning, tolerancing. Utilizing sketches and computer drafting program. Suggested preparation: Engineering 122 or 125.

Engineering 125**Engineering Graphics**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Prerequisite: Mathematics 160 with a minimum grade of C.

Technical drawing and descriptive geometry fundamentals. Includes projection theory, dimensioning, tolerancing, section, design and graphical mathematics, utilizing sketches and computer drafting program. Suggested preparation: Engineering 051 and 183 (may be taken concurrently).

Engineering 130A**CATIA Solid Modeling I**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course in parametric solid modeling CAD using CATIA software. Topics include: CAD overview, sketching, basic solid model creation (base features, pads, pockets, grooves, shafts, etc.) sketch constraints, reference elements, hole features, feature editing, assembly and drawing creation (same as Manufacturing Technology 130A).

Engineering 130B**CATIA Solid Modeling II**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Intermediate course in parametric solid modeling CAD using CATIA software. Topics: intermediate/advanced level sketching and modeling (sweeps, ribs, slots), feature editing and transformation, assemblies, drafting workbench, surface modeling, and other CATIA modules. Suggested preparation: Engineering 130A (same as Manufacturing Technology 130B).

Engineering 132**Introduction to Robotics**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Introductory course in robotics. Topics include history of robotics, impact of robotics in modern engineering, industrial automation, emerging technologies, basic design, sensors, circuitry, actuators, mechanics, programming, and a hands-on robot design and construction project.

Engineering 140A**Creo Beginning Solid Modeling**

Formerly: Engineering 140A, ProEngineer Solid Modeling I

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course in parametric solid modeling CAD using Creo (formerly called ProEngineer) software. Topics include sketches, sketch constraints, part modeling and editing, assemblies, drawing creation and views, dimensioning, and annotations.

**Engineering 140B****Creo Intermediate Solid Modeling****Formerly: Engineering 140B, ProEngineer Solid Modeling II**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Intermediate course in parametric solid modeling CAD using Creo (formerly called ProEngineer) software. Topics: intermediate level sketching, part modeling and modification, assemblies, drawing, surface modeling, and other ProE modules. Suggested Preparation - Engineering 140A.

Engineering 142**Architecture/Civil Engineering/Construction (AEC) Drafting Standards**

Unit(s): 4.0

Class Hours: 48 Lecture, 64 Laboratory total.

An introduction to conventional and computer aided drafting techniques in the relation of drawings for construction. Interpretation of details in construction drawings/blueprints and reference materials. Laboratory: Drafting plans for a residential building using the techniques introduced in the course. Includes ecological terms and concepts, BIM basics, and abbreviations. Recommended preparation Engineering 012 and 183.

Engineering 143**Fundamentals of Construction Engineering/Construction (AEC) Drafting Standards**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Overview of residential, commercial, institutional, industrial, and heavy civil construction and associated codes, standards, and ethical boundaries. Areas of focus to include type of foundations, materials, contract documents, working drawings and vocabulary. Includes an introduction to LEED/Green Construction.

Engineering 154**Architecture/Civil Engineering /Construction (AEC) Parametric and BIM Applications**

Unit(s): 4.0

Class Hours: 48 Lecture, 64 Laboratory total.

This course covers AEC 3D Parametric applications for architectural, civil engineering, and construction drawings/documents. Includes BIM concepts, sustainable design, organization of projects, visualization and printing. Suggested preparation: Engineering 142 and 186.

Engineering 165**Introduction to Energy**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Students will gain a broad understanding of energy concepts, efficiencies, conservation, distribution, careers and cost-benefit analysis of energy resource use. The study of both renewable and non-renewable energy will be included.

Engineering 175**Introduction to Energy Analysis**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course is focused on energy analysis with respect to energy conservation, energy auditing, and CA Title 24 requirements. Calculations will be performed manually and with the assistance of software applications. Career tracks in energy analysis will be explored. Energy concepts, heat loss calculations, basic solar concepts, site selection, design improvements, appliances, and utility systems will be covered within this course.

Engineering 183**AutoCAD I - Computer Aided Drafting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

A first course in computer drafting using AutoCAD software. Topics include: display and file management, units, entities, object selection, advanced editing, layers, dimensions, text, graphic exchange.

Engineering 184**AutoCAD II - Computer Aided Drafting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Intermediate course in the use of AutoCAD software. Topics include blocks, hatches, attributes, inquiry, and 3D introduction. Recommended preparation: Engineering 183.

Engineering 185**AutoCAD III - Computer Aided Drafting**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Advanced course in the use of AutoCAD software. Topics include DXF format, scripts, macros, customizing and creating image tile menus. Recommended preparation: Engineering 184.

Engineering 186**AutoCAD 3-Dimensional Drawing**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Use of AutoCAD's 3-dimensional software. Includes 3D models, extruding to 3D, coordinate space, filter, and dynamic viewing. Recommended preparation: Engineering 184.

Engineering 187**Advanced 3D AutoCAD**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Advanced use of AutoCAD's 3-Dimensional software. Includes: merging of models, advanced modeling, calculations, 3-dimensional rendering and presentation. Suggested preparation: Engineering 186.

Engineering 188**Machine Technology Survey**

Unit(s): 3.0

Class Hours: 16 Lecture, 112 Laboratory total.

Prerequisite: Successful completion of or concurrent enrollment in any one of the following: Manufacturing Technology 011; Engineering 011, 051, 122, 124, 125

Machine tool setup and operation for students who desire general knowledge of machine tools and processes. All the basic machine tools are used. Not intended for Manufacturing Technology majors (same as Manufacturing Technology 188).

Engineering 191**Civil CAD Concepts**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Fundamental principles, operation techniques and practices of two dimensional design using MicroStation computer-aided drafting and design software emphasizing Civil Engineering applications to create, modify, store, and plot graphic data.

Engineering 193**MicroStation 3D**

Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Theory, concepts, techniques and practices of three dimensional design using MicroStation computer-aided drafting and design software. Topics include surfaces, solids, shade, and color. Suggested preparation: Engineering 191.

Engineering 201**Architectural Practice**

Unit(s): 4.0

Class Hours: 48 Lecture, 64 Laboratory total.

Prerequisite: Engineering 183 with a minimum grade of C.

Course provides practical knowledge, ecological terms and concepts, for planning, design, and construction of residential and light commercial buildings including materials, equipment, construction/assembly methods, quantity take-off, and building codes/standards. Suggested preparation: Engineering 142, 112 and 100B.

Engineering 202**Cost Accounting for Construction Engineering**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of the theoretical and practical concepts of cost accounting. Topics include variable and fixed costs, break-even point, interrelationships of cost, volume and profits; job-order accounting, general and flexible budgeting, standard costs; product costing methods; cost allocation; inventory planning; control and valuation; and joint products (same as Accounting 202).



Engineering 203
Sustainable Construction and Facilities Management
 Unit(s): 3.0

Class Hours: 48 Lecture total.

This course provides students the means to apply core sustainable principles to each step within the facilities planning, design and management process. It examines best practices for site and building: energy, conservation, reclamation, recycle-ability, air, water, waste, sound, ecological literacy, and management tools.

Engineering 205
Civil Digital Computations
 Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.
 Prerequisite: Engineering 183 with a minimum grade of C.

Introduction to the theory of AutoCAD engine in civil engineering. Included topics: CAD customization for civil engineers; digital computation methods in statistics and solving algebraic equations; primary combined and complex elements; CAD engine deliverables; complex shapes and libraries.

Engineering 228
Descriptive Geometry
 Unit(s): 3.0

Class Hours: 32 Lecture, 64 Laboratory total.

Application of the concepts of orthographic projection to the solution of three-dimensional problems arising in the various branches of engineering. Introductory computer-aided drafting/design concepts or applications. Suggested preparation: Engineering 122 or 125.

Engineering 235
Statics

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Physics 217 and Mathematics 185 with a minimum grade of C. (Both may be taken concurrently.)

The first part of mechanics, as applied to static force systems and equilibrium conditions occurring in engineering problems. Includes some graphical methods and the use of diagrams as an aid to algebraic solutions. Utilizes SI metrics.

Engineering 240
Dynamics

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Engineering 235 with a minimum grade of C.

The second part of mechanics, concerned with the effect of forces on the motion of objects. Introduction to kinematics and kinetics, rectilinear and curvilinear motion, work and energy, impulse and momentum, and vibrations.

Engineering 250
Electric Circuits

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Mathematics 280 and Physics 227 with a minimum grade of C. (both may be taken concurrently.)

Ohm's and Kirchhoff's Laws; useful theorems for circuit analysis; RC, RL, and RLC circuits, phasors and steady-state sinusoidal analysis; and polyphase circuits.

Engineering 250L
Electric Circuits Laboratory

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Engineering 250 with a minimum grade of C or concurrent enrollment.

Selected laboratory exercises in engineering circuit analysis. Resistive, RL, RC, and RLC circuits and circuit analysis theorems.

Engineering 281
Properties of Engineering Materials

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Chemistry 209 and Physics 217 with a minimum grade of C.

Study of atomic, microscopic, and macroscopic structure of metals; properties' enhancement by alloying and heat treatment; effects of temperature and corrosion on metals; fatigue; and other materials (wood, plastic, and concrete).

ENGLISH (ENGL)

English N50
Introduction to Written Communication

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Qualifying profile from English placement process.

Introduction to written communication including autobiographical, journal and summary writing, and responding to essays. Basic grammar and punctuation. Not applicable to associate degree. Students may be referred to the Learning Center.

English N60
Basics of Effective Writing

Unit(s): 3.0

Class Hours: 64 Lecture total.

Prerequisite: English N50 with a minimum grade of C or qualifying profile from English placement process.

Sentence structure and paragraph writing including reading-based modeling and integrated study skills. Not applicable to associate degree.

English 061
Introduction to Composition

Unit(s): 3.0

Class Hours: 64 Lecture total.

Prerequisite: English N60 with a minimum grade of C or qualifying profile from English placement process.

Expository paragraph writing emphasizing various methods including argumentation. Practice in refining sentence skills and grammar.

English 101 (C-ID ENGL 100)
Freshman Composition

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 061 or English for Multilingual Students 112 or American College English 116 with a minimum grade of C or qualifying profile from English placement process.

Expository and argumentative essays and the research paper. Special interest sections described in schedule of classes.

English 101H (C-ID ENGL 100)
Honors Freshman Composition

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 061 or English for Multilingual Students 112 or American College English 116 with a minimum grade of C or qualifying profile from English placement process. AND a high school or college GPA of 3.0 or above.

An enriched exposure to expository and argumentative essays and the research paper, requiring in-depth analysis of issues and substantive treatment of student-selected topics.

English 102
(C-ID ENGL 110) (C-ID ENGL 120)
Literature and Composition

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

A second semester course in composition and literature that uses literature to develop critical thinking skills with extensive readings selected from the four major genres.

English 102H
(C-ID ENGL 110) (C-ID ENGL 120)
Honors Literature and Composition

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C and a high school or college GPA of 3.0 or above.

An enriched approach designed for honors students. A second semester course in composition and literature that uses literature to develop critical thinking skills with extensive readings selected from the four major genres.

**English 103 (C-ID ENGL 105)****Critical Thinking and Writing**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

This course focuses on developing critical thinking, reading, and writing skills by studying established argumentative methods and models and applying them to contemporary issues. Emphasis will be on logical reasoning and analytical and argumentative skills necessary for critical writing.

English 103H (C-ID ENGL 105)**Honors Critical Thinking and Writing**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C and high school or college minimum GPA of 3.0.

Enriched and intensive exploration of historical and contemporary issues. Application of critical thinking, writing and reading skills to established argumentative methods and models through student-initiated discussion and problem-solving in a seminar setting.

English 104**Language and Culture**

Unit(s): 3.0

Class Hours: 48 Lecture total.

General introduction to the processes of human communication. Includes the relationship between languages and culture, acquisition of first and second languages, languages in contact, sociolinguistics and the effects of both language and culture on inter/intra group communication. Languages spoken in the local area are used as the basis of study (same as Anthropology 104).

English 104H**Honors Language and Culture**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above

Enriched, in-depth study of the processes of human communication. Includes the relationship between language and culture, acquisition of first and second languages, languages in contact, sociolinguistics and the effects of both language and culture on inter/intra group communication. Languages spoken in the local area are used as the basis of study. Requires individual research paper and oral presentations of readings in a seminar setting (same as Anthropology 104H).

English 206**Introduction to Language Structure and Use**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Introduction to the nature and structure of human language, first and second language acquisition, development of literacy, and language use. Comparisons of languages in the local area will be explored.

English 212**Creative Writing II/Fiction**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 211 with a minimum grade of C.

Writing techniques focusing on fiction. Workshop format, emphasis on writing and critiquing. Repeated courses will focus on different genres: short story, novel, and drama. May be repeated.

English 213**Creative Writing****Formerly: English 211, Creative Writing I/Fiction**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Introduction to writing techniques focusing on the four literary genres. Workshop format, emphasis on writing and critiquing.

English 214**Creative Writing I/Poetry**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

A poetry-writing course focusing on poetic techniques, forms and content. Extensive written practice and analysis of the poem and its variety as seen in student and professional work. Covers techniques for submitting works for publication.

English 215**Creative Writing II/Poetry**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 214 with a minimum grade of C.

An advanced poetry-writing course focusing on poetic techniques, forms and content. Extensive written practice and analysis of the poem and its variety as seen in student and professional work. Special emphasis is on the timeless themes of poetry. Covers techniques for submitting works for publication.

English 220**Survey of the Bible As Literature**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

A study of the literary history, influence, and craftsmanship of the Bible and an exploration of related stories, poems, plays, essays, and other diverse materials.

English 231 (C-ID ENGL 160)**Survey of English Literature I****Formerly: English 231, Survey of English Literature**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Introductory study of representative selections of British literature from the Anglo-Saxon period to the neo-classical period. Emphasis on authors best exemplifying their period, such as Chaucer, Shakespeare, Spenser, Jonson, Milton, Donne, Dryden, Johnson, Behn, Pope and others.

English 232 (C-ID ENGL 165)**Survey of English Literature II****Formerly: English 232, Survey of English Literature**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Introductory study of representative selections from the English Romantic Movement to the present. Emphasis on those authors best exemplifying their period, such as Austen, Wordsworth, Coleridge, Byron, the Shelleys, Keats, Tennyson, Newman, Carlyle, the Brownings, Dickens, the war poets, Houseman, Yeats, Wilde and Woolf.

English 233A**Shakespeare's Comedies and Romances**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Study of selected Shakespearean comedies and romances. Emphasizes dramatic elements, depiction of human nature, and timeless/timely conflicts. Augmented by films and, if available, appropriate field trips. Different selections in English 233ABCD.

**English 233B****Shakespeare's Tragedies and History Plays**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Study of selected Shakespearean history plays and tragedies. Emphasizes dramatic elements, depiction of human nature, and timeless/timely conflicts. Augmented by films and, if available, appropriate field trips. Different selections in English 233ABCD.

English 233C**Shakespeare's Theatre**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Study of selected Shakespearean plays. Emphasizes dramatic elements, depiction of human nature, and timeless/timely conflicts. Augmented by films and, if available, appropriate field trips. Different selections in English 233ABCD.

English 233D**Shakespeare's Theatre**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Study of selected Shakespearean plays. Emphasizes dramatic elements, depiction of human nature, and timeless/timely conflicts. Augmented by films and, if available, appropriate field trips. Different selections in English 233ABCD.

English 241**Survey of American Literature 1600-1865**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Survey of America's greatest works of literature from 1600-1865. Emphasizes the relationship between various works and general movements in American culture and literary history.

English 242**Survey of American Literature, 1865 - Present**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Survey of America's greatest works of literature and their contributions to the American culture from 1865 to present. Emphasizes the relationship between literary and intellectual history.

English 243**The Modern American Novel**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Study of significant American novels written since 1900. May include, but not limited to works by Fitzgerald, Hemingway, Faulkner, Hurston, Heller, Kerouac, Nabokov, Erdrich, Cisneros, and Morrison.

English 245**The Image of African Americans in Literature and Films**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Examines literature and films by and about African-Americans in relationship to historical periods. Explores cultural, ethnic, and social environments for their impact on development of African-American images.

English 246**Survey of Chicano Literature**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Examines American literature by and about Chicanos. Emphasizes the relationships between various works and the Chicanos place in American society/culture.

English 270**Children's Literature**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

A study of literature for children emphasizing the history, trends, issues, and evaluation of all major genres: picture books, poetry, drama, traditional literature, non-fiction, and fiction, including full-length works.

English 271**Survey of World Literature I**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Survey of selections from world masterpieces from the beginnings of writing through the 1600's. Literary works studied in historical context for artistic form, their influence on their culture and others, and general contribution to understanding human experience.

English 272**Survey of World Literature II**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

Survey of world literary masterworks since the Renaissance studied for artistic form, cultural influence, and contributions to modern and contemporary thought.

English 278**Survey of Literature by Women**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

An historical survey of literature by women. Will include short stories, novels, plays, poetry, and non-fiction.

ENGLISH AS A SECOND LANGUAGE (ESL)**English As a Second Language N88****Verb Tenses**

Unit(s): 1.5

Class Hours: 24 Lecture, 6 Laboratory total.

Prerequisite: Eligible for EMLS 107 or higher.

Intensive oral and written practice with verb forms and tenses in a variety of contexts. Laboratory is required. May be taken after ESL N89.

ENGLISH FOR MULTILINGUAL STUDENTS (EMLS)**English for Multilingual Students 055****Writing, Grammar and Reading I**

Unit(s): 4.0

Class Hours: 96 Lecture total.

Prerequisite: Qualifying profile from ESL placement process.

Sentence-level writing for multilingual students who can speak English but often make grammar mistakes when writing. Narrative paragraphs and journal writing. Revision and editing. Basic grammar including verb tenses and modals. Critical reading.

English for Multilingual Students 107**Writing, Grammar and Reading II**

Unit(s): 4.0

Class Hours: 96 Lecture total.

Prerequisite: EMLS 055 with a minimum grade of C or qualifying profile from ESL placement process.

Sentence and paragraph level writing for multilingual students who can speak English but often make grammar mistakes when writing. Narrative and descriptive paragraphs. Revision and editing. Review of basic grammar. Practice with sentence variety. Critical reading.



**English for Multilingual Students 109
Writing, Grammar and Reading III**

Unit(s): 4.0

Class Hours: 96 Lecture total.

Prerequisite: EMLS 107 with a minimum grade of C or qualifying profile from ESL placement process.

Paragraph-level writing for multilingual students who speak English but often make grammar mistakes when they write. Narrative, descriptive and expository paragraph practice. Revision and editing. Complex grammar structures. Critical reading.

English for Multilingual Students 110

Introduction to the Essay

Unit(s): 3.0

Class Hours: 64 Lecture total.

Prerequisite: EMLS 109 with a minimum grade of C or qualifying profile from ESL placement process.

Introductory writing course for multilingual students who speak English fluently but make multiple grammar errors when writing. Composition course progresses from paragraph to essay, emphasizing basic expository modes, grammar review, critical reading, and revision and editing techniques.

**English for Multilingual Students 112
Advanced Composition**

Unit(s): 3.0

Class Hours: 64 Lecture total.

Prerequisite: EMLS 110 with a minimum grade of C or qualifying profile from ESL placement process.

Advanced-level writing course for multilingual students who are fluent in conversational English but make multiple grammar errors when writing. Emphasis is on complex expository modes, grammatical accuracy in writing, grammar review, research methods, critical reading skills, and revision and editing techniques.

ENTREPRENEURSHIP (ENTR)

Entrepreneurship 100

Introduction to Innovation and Entrepreneurship

Unit(s): 3.0

Class Hours: 48 Lecture total.

Learn that venture creation is a process. Explore the types of ventures one can create and explore venture stories. Discover an overview of the entrepreneurial process. Learn to see opportunities. Discover the resources necessary to turn a dream into a business.

**Entrepreneurship 101
Entrepreneurs and Success**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn the psychology of becoming a successful entrepreneur. Discover how to find flow and stay on course. Learn the habits of highly successful entrepreneurs. Discover how cutting-edge communication, design and technology are 21st-century drivers of success.

**Entrepreneurship 102
Entrepreneurial Ideas and Creativity**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Discover that business creativity is a process that can be learned. Practice the process of searching for new business ideas using proven methods. Turn your creativity into business ideas.

**Entrepreneurship 103
Innovations and Opportunities**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn how to search for and create a good business opportunity. Learn how to turn business ideas into entrepreneurial opportunities. Explore and map personal specific knowledge to create business innovation. May be repeated.

**SANTA ANA COLLEGE
ENGLISH FOR MULTILINGUAL STUDENTS (EMLS)**

EMLS/ESL courses are offered by the English/ESL Dept. to serve bilingual, multilingual, and non-native speakers of English who need to improve their writing skills before enrolling in English 101. These courses address such areas as vocabulary, advanced sentence construction and writing fluency in paragraphs and essays.

Students who took ELD (English Language Development) classes in high school and studied regular English only in their senior year should take the TELD test (Test of English Language Development) to determine their college placement.

Students enrolled in EMLS courses should also enroll in a Reading class and possibly a Communication Studies class to enhance their writing and communication skills.

EMLS courses address writing problems that are common to bilingual students. EMLS 110 and EMLS 112, unlike English N60 and 061, are transferable to some California State University campuses as electives.

Placement into any of these courses is based on the student's test score and qualifying profile OR completion of the previous course with a grade of A,B,C, or P.

ESL/EMLS COURSE	COMMUNICATION STUDIES COURSE	READING COURSE
INTERMEDIATE LEVEL COURSES		
CEC Transfers often place here EMLS 055	Communication Studies N52A	Reading N50 or N80
EMLS 107	Communication Studies N52AB	Reading N80
High School Grads often place here EMLS 109	Communication Studies 096, 097 or N53	Reading N90
ADVANCED LEVEL COURSES		
EMLS 110	Communication Studies 096, 097 or N53	Reading N90 or 102
EMLS 112	Communication Studies N50	Reading 102
FRESHMAN COMPOSITION		
English 101	Communication Studies 101 or 102	Reading 150

EMLS 110 and 112 are CSU transferable.



Entrepreneurship 104 Business Models

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn what a business model is and learn if a business model will make money. Discover how to filter business opportunities. Learn how to project whether business opportunities can be scalable, can target identifiable markets, and can achieve profitability.

Entrepreneurship 105 Social Media, Bootstrapping, and Market Validation

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn the latest Social Media and Bootstrap Marketing strategies and techniques. Discover how to do more with marketing while spending less. Learn what you need to know about your customer and your market by designing a sound research strategy. Discover how to implement a market validation strategy.

Entrepreneurship 106 Building an Entrepreneurial Team

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn how to create a network of principals, advisors, collaborators, managers, attorneys, accountants, and employees to build a successful business team. Explore how to organize your company and your business for day-to-day operations. Issues in hiring people and outsourcing.

Entrepreneurship 107 Money, Finance and Accounting for Entrepreneurs

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn how entrepreneurial finance works - where, when and how to get financing debt, equity, bootstraps, angels and venture capitalists. Determine how much you need, when and how to get it. Learn the critical importance of leveraging resources. Learn that cash flow is critical to entrepreneurs. Learn what you really need to know about bookkeeping and accounting and how to use numbers to make smarter decisions.

Entrepreneurship 108 Business Plans for Entrepreneurs

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn to complete an effective and useful business plan with elements such as a company overview, customer pain, solution, competition, team, business model and financials. Learn the different audiences for a business plan.

Entrepreneurship 109 Powerful Presentations

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn how to collaborate and translate business plans into powerful sales tools using cutting-edge technology to create presentations using video, animation, visuals, stories and simulations. Discover how to bring business dreams alive.

Entrepreneurship 110 Capstone Business Simulations

Unit(s): 3.0

Class Hours: 48 Lecture total.

Participate in realistic hands-on business simulations. Make complex business decisions and learn the implications of decisions made. Learn real world business principles in an exciting business context.

Entrepreneurship 111 Capstone Entrepreneurial Case Studies

Unit(s): 3.0

Class Hours: 48 Lecture total.

Discuss complex entrepreneurial business cases in a highly interactive environment. Translate complex business cases into critical incidents. Translate critical incidents into simulations. Learn to analyze entrepreneurial problems and solutions.

Entrepreneurship 120 Introduction to Working As a Freelance Independent Contractor

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn the freelancer mindset. Learn how to work where you want, when you want, and how you want. Plan your life, your career, and your business. Develop your goals. Understand your personal strengths and skills. Learn how to turn your strengths and skills into viable, sustainable businesses by finding what is unique about you and turning that uniqueness into a personal brand.

Entrepreneurship 121 People Skills for the Freelancer

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn "people skills" - also known as "soft skills" - communication skills, technological skills, negotiation skills and presentation skills needed to be successful as a freelance independent contractor. Develop your soft skills and selling skills to compete for business and keep customers happy.

Entrepreneurship 122 Opportunities in Freelance Industries And Trades

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn how to spot opportunities within a trade and industry. Learn how to network and connect within a trade and industry in order to get business and get mentors. Learn to understand the competitive economic landscape within a trade or industry. Develop opportunities into a viable, sustainable business. Understand how to travel and work in a global economy.

Entrepreneurship 123 Marketing to Attract Customers and Grow Your Freelance Business

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn marketing as it applies to the freelance independent contractor. Learn market research, business development, branding, pricing, promotion, advertising, social media, sales, distribution and customer service. Understand how to identify and sell to a niche market. Learn how to market on a limited budget. Learn how to market yourself online.

Entrepreneurship 124 Survival Finance and Accounting for the Freelancer-Show Me the Money

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn personal finance, business finance and basic accounting. Learn financial survival tips for the freelancer. Understand sources of financing, cash and cash flow, QuickBooks, financial statements, pricing and profits, getting paid, accounts receivables and payables, record-keeping, budgeting and taxes. Understand how to open and operate your business on a limited budget.

Entrepreneurship 125 Launch Your Freelance Business

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn how to launch a freelance business. Set-up and manage your operations. Learn about office locations, business licenses, insurance, government regulations, lawyers, entity formation, intellectual property, health insurance, work-life balance, leadership, teamwork, management and human resources. Topics include managing yourself, managing others and working with subcontractors.



Entrepreneurship 174
Microsoft Dynamics for Business and Management

Unit(s): 4.0

Class Hours: 64 Lecture total.

Hands-on training in the use of Microsoft Dynamics integrated software, covering setup and transaction processing for modules pertaining to inventory control, supply chain management, Enterprise Resource Planning (ERP), and other aspects of operational planning and management. Suggested preparation: completion of, or current enrollment in Accounting 102 and 173 (same as Accounting 174).

ENVIRONMENTAL STUDIES (ENVR)

Environmental Studies 140

Environmental Geology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of urban geologic hazards: earthquakes, groundwater pollution, flood potential, landslides and creep, soil expansion, coastal erosion, and volcanic hazards (same as Geology 140).

Environmental Studies 170

Environmental Challenges of the 21st Century

Unit(s): 1.0

Class Hours: 16 Lecture total.

Examines the environmental impacts of increased human population on food, water and energy resources. Land use policies and environmental effects of pollution will also be analyzed (same as Biology 170).

Environmental Studies 200

Environment of Man

Unit(s): 3.0

Class Hours: 48 Lecture total.

A biological and physical science introduction to environmental problems such as energy, resources, pollution, land use, population and food, including economic and political factors. A natural science elective (same as Biology 200 and Science 200).

Environmental Studies 259

Environmental Biology

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Introduction to Environmental Studies. Includes study of ecosystems, population dynamics, classification, diversity of plant and animal species, effects of pollutants at both the cellular and organismal levels, and principles of ecology (same as Biology 259).

ETHNIC STUDIES (ETHN)

Ethnic Studies 101

Introduction to Ethnic Studies

Unit(s): 3.0

Class Hours: 48 Lecture total.

Historical and cultural survey of ethnic groups and relations in the U.S. among European Americans, Native Americans, Asian Pacific Americans, African Americans, and Mexican Americans/Latinos from the pre-Columbian period to the present.

Ethnic Studies 101H

Honors Introduction to Ethnic Studies

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Historical and cultural survey of ethnic groups and relations in the U.S. among Euro-Americans, Native Americans, Asian Pacific Americans, African Americans, and Mexican Americans/Latinos from the pre-Columbian period to present. Enriched and intensive historical and cultural survey presented in a seminar setting.

Ethnic Studies 102

The Borderlands: Cultural Context and Intercultural Relations

Unit(s): 3.0

Class Hours: 48 Lecture total.

Analysis of the U.S.-Mexico border region: geographic, historic, and artistic significance. Discussions of "borders" in international, regional, community, and personal contexts, as they concern intercultural relations. Attention given to the cultural interactions of African American, Asian American, Chicano/Latino, and Native American ethnic groups within mainstream U.S. society.

Ethnic Studies 102H

Honors: the Borderlands: Cultural Context and Intercultural Relations

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Enriched analysis of the U.S.-Mexico border region: geographic, historic, and artistic significance. Discussions of "borders" in international, regional, community, and personal contexts, as they concern intercultural relations. Attention given to the cultural interactions of African American, Asian American, Chicano/Latino, and Native American ethnic groups within mainstream U.S. society, in a seminar format.

FASHION DESIGN MERCHANDISING (FDM)

Fashion Design Merchandising 005

Fashion Laboratory

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in any Fashion Design Merchandising course.

Supervised use of the fashion laboratory. Lab hours vary by sign-in. Twenty-four hours laboratory per 0.5 units. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Fashion Design Merchandising 005A

Fashion Laboratory

Unit(s): 0.5 - 1.0

Class Hours: 16 Laboratory total.

Advanced level of supervised use of the fashion laboratory. Lab hours vary by sign-in. Sixteen hours laboratory per 0.5 unit. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Fashion Design Merchandising 052

Knit Sewing

Unit(s): 2.0

Class Hours: 32 Lecture, 24 Laboratory total.

Knit and stretch construction techniques to sew lingerie, bathing suits, jogging attire and knit shirts. May be repeated. Grade: Pass/No Pass only.

Fashion Design Merchandising 053

Introduction to Sewing

Unit(s): 2.0

Class Hours: 32 Lecture, 24 Laboratory total.

Basics in sewing; how to use the sewing machine, understanding pattern terms and tools and constructing basic samples, skirts, and shirts. May be repeated. Grade: Pass/No Pass only.

Fashion Design Merchandising 055

Children's Clothing

Unit(s): 2.0

Class Hours: 24 Lecture, 24 Laboratory total.

Quick basic sewing techniques. Emphasis on individualizing designs to create a variety of functional, durable children's garments. May be repeated.

Fashion Design Merchandising 056

Basic Sewing and Alternations

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Basic sewing techniques used in the restyling and alteration of ready-made garments. Evaluation of fit and determination of appropriate styling changes emphasized.



Fashion Design Merchandising 057
Patterns for Dressmakers

Unit(s): 3.5

Class Hours: 48 Lecture, 32 Laboratory total.

Basic flat pattern methods for designing original patterns and altering designs of commercial patterns for dressmakers. Students will construct their designed garments. Suggested preparation: Fashion Design Merchandising 105A and 105B. May be repeated.

Fashion Design Merchandising 058
Decorative Apparel

Unit(s): 0.5

Class Hours: 8 Lecture, 8 Laboratory total.

Application techniques of sewing embellishments on surface textures and patterns in creating ethnic inspired apparel designs. May be repeated. Grade: Pass/No Pass only.

Fashion Design Merchandising 059
Fashion Modeling

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Modeling techniques of the formal fashion runway and informal showings, stressing preparation of the professional model. May be repeated. Grade: Pass/No Pass only.

Fashion Design Merchandising 100
Introduction to Fashion

Unit(s): 3.0

Class Hours: 48 Lecture total.

Traces and analyzes the fashion industry, trends, and designers from socio-economic, political, technological, and global influences; emphasis on current fashion careers.

Fashion Design Merchandising 101
Buying and Merchandising

Unit(s): 3.0

Class Hours: 48 Lecture total.

Principles, techniques and vocabulary of fashion merchandising; planned purchasing and buying challenges of merchandising to satisfy consumer demands.

Fashion Design Merchandising 102
Promotion and Coordination

Unit(s): 3.0

Class Hours: 48 Lecture total.

A study of the directing and coordination of event promotions. Emphasis on promotion planning and presentation, salesmanship and event production. May be repeated.

Fashion Design Merchandising 103
Fashion Selection

Unit(s): 3.0

Class Hours: 48 Lecture total.

Analysis of color, line and design with sociological, psychological and fashion trend considerations for garment selection, facial design and wardrobe planning. For men and women.

Fashion Design Merchandising 104
Textile Fibers and Fabrics

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

A study of textile fibers and fabrics, their selection, identification, use and care for wearing apparel, and home furnishings.

Fashion Design Merchandising 105A
Beginning Sewing

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Construction techniques for beginners with emphasis on learning how to use the sewing machine and reading a pattern. Students will construct a skirt, shirt, lined garment, and a compilation of 50 construction techniques. Students will learn to select fabrics, fit patterns, and basic sewing skills.

Fashion Design Merchandising 105B
Intermediate Sewing

Unit(s): 2.0

Class Hours: 24 Lecture, 32 Laboratory total.

Follow-up of Fashion Design Merchandising 053 and 105A, Beginning Sewing. Coordination of woven fabrics and pattern fitting in construction of class projects such as pants, dress shirts, and unlined jackets.

Fashion Design Merchandising 106
Advanced Sewing

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Advanced clothing construction techniques appropriate for creating custom garments. Emphasis is placed on working with designer patterns and complex contemporary fabrics. Projects include lined suits and custom garments. Recommended preparation: Fashion Design Merchandising 105B.

Fashion Design Merchandising 106A
Advanced Sewing I

Unit(s): 1.5

Class Hours: 16 Lecture, 24 Laboratory total.

Advanced clothing construction techniques appropriate for creating custom garments. Emphasis is placed on working with designer patterns and complex contemporary fabrics. Projects include custom garments. Follow-up of Fashion Design Merchandising 105B, Intermediate Sewing.

Fashion Design Merchandising 106B
Advanced Sewing II

Unit(s): 1.5

Class Hours: 16 Lecture, 24 Laboratory total.

Advanced construction sewing techniques to complete a lined suit or coat, including challenging fabrics and individualized selection and fit. Follow-up of Fashion Design Merchandising 106A, Advanced Sewing I.

Fashion Design Merchandising 107
Custom Tailoring

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Advanced sewing students will apply traditional tailoring techniques in completing a lined suit or coat, including hand pad stitching and edge taping. Suggested preparation: Fashion Design Merchandising 106.

Fashion Design Merchandising 108
RTW Quality Analysis

Unit(s): 3.0

Class Hours: 48 Lecture total.

An analysis of ready-to-wear apparel for quality evaluation of materials, construction, design, fit, care, and pricing related to consumer buying expectations.

Fashion Design Merchandising 109
Flat Pattern Techniques (Formerly: Pattern Design)

Unit(s): 3.5

Class Hours: 48 Lecture, 32 Laboratory total.

Students will learn to use flat pattern basic block for pivoting and spreading methods to transfer trade sketches into first pattern outfits and dresses. Students will be required to sew their sample garments. Suggested preparation: Fashion Design Merchandising 105A and 105B.

Fashion Design Merchandising 111A
Fashion Illustration Techniques
Formerly: Fashion Design Merchandising 111A, Fashion Sketching

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Application of the basic techniques of drawing fashion and garment trade sketches. Students will use current fashion industry design software along with pencils and markers.

Fashion Design Merchandising 111B
Fashion Illustration

Unit(s): 2.0

Class Hours: 16 Lecture, 40 Laboratory total.

Prerequisite: Fashion Design Merchandising 111A with a minimum grade of C.

Further fashion illustration techniques including color media, camera ready skills, and design of layouts. Focus on Croquis Development and alternative customers. E.G. Children, Maternity, Men, and/or Plus size.

Fashion Design Merchandising 111C
Fashion Portfolio Development

Unit(s): 2.0

Class Hours: 24 Lecture, 32 Laboratory total.

Prerequisite: Fashion Design Merchandising 111A with a minimum grade of C.

Advanced sketching course to create a cohesive fashion design or merchandising portfolio for job interview presentation. Focus on appropriate formats, design concepts, fabric rendering techniques, fashion figure proportions, flat technical drawings, and scholarship entries.



**Fashion Design Merchandising 112
Advanced Flat Pattern Marking**

Unit(s): 3.5

Class Hours: 40 Lecture, 40 Laboratory total.

Flat pattern drafting techniques applied to completing basic blocks and first patterns for pants and lined blazers/coats. Students are required to sew their sample garments. Suggested preparation: Fashion Design Merchandising 053 or 105A and 105B.

**Fashion Design Merchandising 113
Fashion Draping**

Unit(s): 3.0

Class Hours: 48 Lecture, 32 Laboratory total.

Basic techniques of draping flat fabric into three dimensional garment styles on the dress form to create first patterns. Students are required to sew their sample garments. Suggested preparation: Fashion Design Merchandising 105A and 105B.

**Fashion Design Merchandising 125
Display Merchandising**

Unit(s): 3.0

Class Hours: 40 Lecture, 16 Laboratory total.

Visual merchandise techniques and material in relation to the elements and principles of design.

**Fashion Design Merchandising 212
Advanced Draping**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Fashion Design Merchandising 113 with a minimum grade of C.

Fashion design merchandising draping techniques further practiced in woven knits and motif fabrics in designing a line grouping.

**Fashion Design Merchandising 213
Apparel Line Production**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Fashion Design Merchandising 100 or 108, and 109 and 111A with a minimum grade of C.

Instruction on designing a line using industry production techniques and equipment, including sketch, pattern and construction.

**Fashion Design Merchandising 214
Tech-Packs for Manufactured Apparel
Formerly: Fashion Design Merchandising 214,
Manufacturing and Grading**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction and application of garment industry manufacturing processes using production equipment to mass produce a consumer targeted product. Included are techniques in building a tech-pack, garment knock-offs, pattern adjustments, appropriate fit, and grading techniques. Suggested preparation: Fashion Design Merchandising 105A, 111A, and 109.

**Fashion Design Merchandising 215
Computer Fashion Illustration**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Computerized fashion illustration is taught using Lectra computer software. Student needs to know how to manually draw trade flats and posed figures prior to enrolling. Suggested preparation: Fashion Design Merchandising 111A. May be repeated.

**Fashion Design Merchandising 216
Computer Pattern Design, Grading and Marking**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Computerized apparel pattern drafting, size grading and marking are taught using Lectra Modaris and Diamino computer software as tools. Prior to enrollment, student must be able to manually draft patterns, grade patterns and layout markers. Suggested preparation: Fashion Design Merchandising 109 and 214. May be repeated.

**Fashion Design Merchandising 299
Cooperative Work Experience Education**

Unit(s): 1.0 - 4.0

Class Hours: 6 Lecture, 240 Lecture total.

Prerequisite: 12 units of Fashion Design Merchandising courses completed.

Supervised fashion field experience with new tasks in major. Students can earn 1 unit of credit for 60 hours worked up to 240 hours for 4 units. May be repeated. Grade: Pass/No Pass only.

FIRE ACADEMY (FAC)

Fire Academy 007

Orientation and Physical Fitness

Unit(s): 2.5

Class Hours: 8 Lecture, 96 Laboratory total.

Prerequisite: Concurrent enrollment in FAC 050 or 060.

An orientation and physical fitness course to include introduction to the Basic Fire Academy, rules and regulations, procedures, safety and participation in physical fitness program. Grade: Pass/No Pass only.

Fire Academy 008

Firefighter I Physical Ability Examination

Unit(s): 0.1

Class Hours: 2 Lecture, 2 Laboratory total.

Designed to assess fire specific physical ability requirements. Successful completion of this course is required for entrance into the basic fire academy Fire Academy 060. Grade: Pass/No Pass only.

Fire Academy 017

Physical Ability Instructor

Unit(s): 0.1

Class Hours: 2 Lecture, 2 Laboratory total.

Designed to train instructors to administer the Physical Ability test. Evaluate instructor's ability to administer physical ability test. Grade: Pass/No Pass only.

Fire Academy 018A

Firefighter I Physical Ability Practice (Exam)

Unit(s): 0.1 - 0.3

Class Hours: 2-6 Lecture, 2-6 Laboratory total.

Training designed specifically for fire service and those interested in entering the fire service. Assists the student in developing the physical abilities and skills to perform better on fire department physical ability test. May not be used to obtain eligibility for the basic fire academy. Grade: Pass/No Pass only. Open Entry/Open Exit.

Fire Academy 018B

Beginning Fire Physical Ability Training

Unit(s): 0.2 - 1.3

Class Hours: 8-64 Laboratory total.

Students will be introduced to the events of the "Biddle" Fire Fighter Physical Ability Test (Fire Academy 008). This is a supplemental learning assistance course designed to prepare the student for participation and successful completion of FAC 008. Students will perform physical exercises using fire hose, ladders, stairs, and calisthenics, proper body mechanics, lifting techniques and physical conditioning principles. Grade: Pass/No Pass only. Open Entry/Open Exit.

Fire Academy 018C

Intermediate Fire Physical Ability Training

Unit(s): 0.2 - 1.3

Class Hours: 8-64 Laboratory total.

Students will practice the individual events of the "Biddle" Fire Fighter Physical Ability Test (Fire Academy 008). This is a supplemental learning assistance course designed to prepare the student for participation and successful completion of FAC 008. Students will perform physical exercises using fire hose, ladders, stairs, and calisthenics, proper body mechanics, lifting techniques and physical conditioning principles. Grade: Pass/No Pass only. Open Entry/Open Exit.

Fire Academy 018D

Advanced Fire Physical Ability Training

Unit(s): 0.2 - 1.3

Class Hours: 8-64 Laboratory total.

Students will practice and condition for successful completion of the "Biddle" Fire Fighter Physical Ability Test (Fire Academy 008). This is a supplemental learning assistance course designed to prepare the student for participation and successful completion of Fire Academy 008. Students will perform physical exercises and training circuits using fire hose, ladders, stairs, and calisthenics, proper body mechanics, lifting techniques and physical conditioning principles. Grade: Pass/No Pass only. Open Entry/Open Exit.

**Fire Academy 031****Fire Specialist Academy, Vehicle Rescue And Extrication**

Unit(s): 0.3

Class Hours: 8 Lecture, 8 Laboratory total.

A course in rescue incident management and includes police coordination/cooperation, assessment, triage, extrication, field equipment, stabilization. Grade: Pass/No Pass only.

Fire Academy 033**Swift Water Rescue**

Unit(s): 0.3

Class Hours: 16 Laboratory total.

Water rescue equipment and practices at a first responder level.

Fire Academy 035**Confined Space Rescue: Operational**

Unit(s): 1.0

Class Hours: 23 Lecture, 17 Laboratory total.

Prepares emergency responders for confined space entry and rescue. Meets CFSTES guidelines for professional certification. May be repeated. Grade: Pass/No Pass only.

Fire Academy 041A**Reserve Firefighter Academy**

Unit(s): 3.5

Class Hours: 144 Lecture, 22 Laboratory total.

Basic and predictable level of knowledge, skills, and ability among those individuals destined for assignment to an operational fire crew. Includes EMS and HazMAT First Responder. Meets minimum departmental requirements for safety. May be repeated. Grade: Pass/No Pass only.

Fire Academy 050**Fire Suppression Training Academy**

Unit(s): 12.0

Class Hours: 266 Lecture, 294 Laboratory total.

Prerequisite: Concurrent enrollment in Fire Academy 007. Medical exam in accordance with NFPA 1582 and Fire Academy 008.

Does not meet requirements of OCFCA or California State Firefighter I criteria. Grade: Pass/No Pass only.

Fire Academy 052**Flashover**

Unit(s): 0.2

Class Hours: 3 Lecture, 5 Laboratory total.

Theory of fire characteristics and behavior with emphasis on ROLLOVER and FLASHOVER. Students will participate in live fire training, hose lays and correct nozzle methods. May be repeated. Grade: Pass/No Pass only.

Fire Academy 060**Basic Fire Academy**

Unit(s): 12.0

Class Hours: 266 Lecture, 294 Laboratory total.

Prerequisite: Fire Technology 101, 102, 103, 104, 105, 106, 121 (121L must also receive a P = pass); Fire Academy 008 and EMT 100 with a minimum grade of C; meet NFPA 1582 medical examination, concurrent enrollment in Fire Academy 007, and certification in the State of California as an EMT.

California State Board of Fire Services/Firefighter I approved, criteria available.

Fire Academy 061**Basic Fire Academy Validation**

Unit(s): 0.3

Class Hours: 16 Laboratory total.

Assessment for OCFCA Entry Level Standards. May be repeated. Grade: Pass/No Pass only.

Fire Academy 062**Basic Incident Command Systems**

Unit(s): 0.3

Class Hours: 16 Lecture total.

Basic principles of command, knowledge, and skills common to all positions in the Incident Command System. May be repeated. Grade: Pass/No Pass only.

Fire Academy 062A**Strike Team Leader Orientation (ICS)**

Unit(s): 0.2

Class Hours: 8 Lecture total.

State Office of Emergency Service procedures for fire departments assigned to OES when responding to a mutual aid incident.

Fire Academy 063**Heavy Rescue Systems 1**

Unit(s): 0.8

Class Hours: 20 Lecture, 20 Laboratory total.

Specialized technical information regarding the analysis of rescue problems, preparation procedures, and the execution of rescue techniques. May be repeated. Grade: Pass/No Pass only.

Fire Academy 063A**Heavy Rescue Systems 2**

Unit(s): 0.8

Class Hours: 20 Lecture, 20 Laboratory total.

Specialized technical information regarding the analysis of rescue problems, preparation procedures and the execution of rescue techniques. Grade: Pass/No Pass only.

Fire Academy 063C**HERS - Heavy Rigging and Equipment Specialist**

Unit(s): 0.5

Class Hours: 6 Lecture, 18 Laboratory total.

This course is designed to prepare firefighters in HERS-HEAVY RIGGING AND EQUIPMENT SPECIALIST deployment when working with FEMA. Meets Orange County, L.A. City Fire Chiefs, and State Fire Marshall's certification and FEMA standards. May be repeated. Grade: Pass/No Pass only.

Fire Academy 071A**Ventilation Review**

Unit(s): 0.3

Class Hours: 8 Lecture, 8 Laboratory total.

Theory of positive pressure ventilation and panelized roofs; student will participate in walking, sounding, and cutting panelized roofs. Grade: Pass/No Pass only.

Fire Academy 072**Emergency Trench Shoring**

Unit(s): 0.3

Class Hours: 8 Lecture, 8 Laboratory total.

To update fire personnel in emergency trench operations. Includes general safety and OSHA regulations, relative to open trenches or excavations in potentially hazardous situations. Grade: Pass/No Pass only.

Fire Academy 076**Low Angle Rope Rescue**

Unit(s): 0.5

Class Hours: 12 Lecture, 12 Laboratory total.

Designed to equip students with information, techniques, and methods for utilizing rope, webbing, hardware, friction devices, and stretchers in low angle, over-the-side rope rescue situations. May be repeated. Grade: Pass/No Pass only.

Fire Academy 076A**High Angle Rope Rescue**

Unit(s): 0.5

Class Hours: 14 Lecture, 10 Laboratory total.

Designed to equip student with information, techniques, and methods for utilizing rope, webbing, hardware, friction devices, and stretchers in high angle/high rise rope rescue situations. Grade: Pass/No Pass only.

Fire Academy 079A**Division/Group Supervisor**

Unit(s): 0.3

Class Hours: 16 Lecture total.

Designed for fire personnel qualifying within the incident command system as a division group supervisor. Course focuses on the management skills required of a division group supervisor. Grade: Pass/No Pass only.

**Fire Academy 079B****S-330 Task Force-Strike Leader**

Unit(s): 0.5

Class Hours: 24 Lecture total.

Designed for Fire Personnel qualifying within the Incident Command System as a Task force-Strike team leader. Topics include Strike team orientation, incident responsibilities, and demobilization/release. May be repeated. Grade: Pass/No Pass only.

Fire Academy 079D**I-440 Planning Section Chief**

Unit(s): 1.0

Class Hours: 40 Lecture total.

Designed for Fire Personnel qualifying within the Incident Command System as a Planning Section Chief. Course focuses on the management skills required of a Planning Section Chief. Grade: Pass/No Pass only.

Fire Academy 080A**S-234 Wildland Firing Methods and Procedures**

Unit(s): 0.5

Class Hours: 24 Lecture total.

Designed to teach fire crews the principles of backfire/burnout and the necessary firing techniques and related firing devices used to accomplish either of these suppression methods. May be repeated. Grade: Pass/No Pass only.

Fire Academy 080B**S-190 Introduction to Wildland Fire Behavior**

Unit(s): 0.2

Class Hours: 8 Lecture total.

This course provides instruction in the primary factors affecting the start and spread of wildfire and recognition of potentially hazardous situations. S-190 is typically taught in conjunction with or prior to Basic Fire Fighter Training, S-130. It is designed to meet the fire behavior training needs of a Fire Fighter Type 2 (FFT2) on an incident as outlined in the PMS 310-1, Wildland Fire Qualification System Guide and the position task book developed for the position.

Fire Academy 080D**S-290 Intermediate Wildland Fire Behavior**

Unit(s): 0.8

Class Hours: 32 Lecture total.

Designed to meet training requirements to work in the ICS Operations Section as a Single Resources Boss. This is a "skill" course that is designed to instruct prospective fire line supervisors in wildland fire behavior for effective and safe fire management operations. Grade: Pass/No Pass only.

Fire Academy 084**Hazardous Materials First Responder**

Unit(s): 0.5

Class Hours: 24 Lecture total.

Emphasis on specific, practical information necessary for a first responder to correctly handle a hazardous materials initial response.

Fire Academy 084A**First Responder "operational" Decontamination**

Unit(s): 0.2

Class Hours: 4 Lecture, 4 Laboratory total.

To provide students with an understanding of the knowledge necessary to perform in a safe and competent manner to limit the spread of contamination. Grade: Pass/No Pass only.

Fire Academy 200**Fire Public Education Officer 1**

Unit(s): 1.0

Class Hours: 40 Lecture total.

Public fire safety education with emphasis on planning, local problems, public education strategies, audio visual aids, public media, and target populations. Meets California Fire Academy requirements.

FIRE OFFICER TRAINING (FOT)**Fire Officer Training 006B****Truck Company Academy**

Unit(s): 0.2

Class Hours: 16 Lecture total.

Truck company operations and ventilation skills at a first responder level. May be repeated. Grade: Pass/No Pass only.

Fire Officer Training 006D**CSFM Terrorism and RIC**

Unit(s): 0.5

Class Hours: 24 Lecture total.

This course is designed to prepare firefighters to become familiar with terrorism tactics and (RIC) rapid intervention crew. Meets Orange County, L.A. City Fire Chiefs, and State Fire Marshall's certification standards. Grade: Pass/No Pass only.

Fire Officer Training 008A**S-339 Division/Group Supervisor All Risk**

Unit(s): 0.5

Class Hours: 24 Lecture total.

Designed for Fire Personnel qualifying within the Incident Command System as a Division Group Supervisor. Course focuses on the management skills required of a Division Group Supervisor. Grade: Pass/No Pass only.

Fire Officer Training 008C**S-244 Field Observer**

Unit(s): 0.4

Class Hours: 20 Lecture total.

Designed to train firefighters in the basic fire behavior factors that will aid them in safe and effective control of wildland fires. Not offered every semester. May be repeated. Grade: Pass/No Pass only.

Fire Officer Training 008E**S-445 Training Specialist**

Unit(s): 0.2

Class Hours: 16 Lecture total.

This course is designed to train personnel to perform the training specialist position as it relates to ICS organizational elements. Describes terminology, staffing considerations, and reporting relationships.

Fire Officer Training 012**Ethical Leadership**

Unit(s): 0.2

Class Hours: 8 Lecture total.

Provides information and sample techniques for ethical leadership in the appraisal, in the classroom. Grade: Pass/No Pass only.

Fire Officer Training 016**CSFA Terrorism**

Unit(s): 0.3

Class Hours: 16 Lecture total.

This course is designed to prepare firefighters to become familiar with terrorism tactics. Meets Orange County, L.A. City Fire Chiefs, and State Fire Marshall's certification standards. Grade: Pass/No Pass only.

Fire Officer Training 017**Fire Control 5**

Unit(s): 0.5

Class Hours: 15 Lecture, 9 Laboratory total.

Designed to familiarize students with the different types of helicopter and aircraft rescues. Personal safety and rescue equipment will be demonstrated. The human factors and stress involved with aircraft rescue will be discussed. Grade: Pass/No Pass only.

Fire Officer Training 018**Ground Safety and Survival**

Unit(s): 0.3

Class Hours: 16 Lecture total.

Fire Ground Safety and Survival is designed to prepare participants to understand and provide several group crisis interventions, specifically demobilizations, defusing and critical incident stress debriefings. May be repeated. Grade: Pass/No Pass only.

Fire Officer Training 019**Emergency Trench Rescue**

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Fire Academy 060 with a minimum grade of C.

This course is designed to train fire service personnel in hands-on application of the techniques necessary to safely affect a rescue from an excavation or trenching cave-in. Topics include critical considerations while responding to trenching emergencies, evaluation of cave-in scenes, basic life support procedures and temporary protection for victims, specialized tool usage, shoring techniques, and below grade rescue safety procedures. Grade: Pass/No Pass only.

**Fire Officer Training 026****Fire Inspector 1A**

Formerly: Fire Academy 231A, Fire Prevention Officer 1A

Unit(s): 1.5

Class Hours: 24 Lecture total.

Prerequisite: Fire Prevention Core Class or equivalent work experience. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course provides a broad, technical overview of fire prevention codes and ordinances, inspection practices, and key hazards.

Fire Officer Training 027**Fire Inspector 1B: Introduction to Fire And Life Safety**

Formerly: Fire Academy 231B, Fire Prevention Officer 1B

Unit(s): 1.5

Class Hours: 24 Lecture total.

Prerequisite: Fire Prevention Officer 1B or Fire Inspector 1A with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

This course will provide fire prevention professionals with the base level of knowledge necessary to inspect fire protection systems and special hazards.

Fire Officer Training 028**Fire Inspector 1C: Field Inspection**

Formerly: Fire Academy 231C, Fire Prevention Officer 1C

Unit(s): 1.5

Class Hours: 24 Lecture total.

Prerequisite: Fire Prevention Officer 1A and 1B with a minimum grade of 80% or Fire Inspector 1A and 1B with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course focuses the participants on the special hazards associated with flammable and combustible liquids and gases. Some topics of discussion include bulk storage and handling, transportation of flammable gases and liquids, and more.

Fire Officer Training 032**ICS-300 Intermediate ICS**

Formerly: Fire Academy 062B, ICS-300 Intermediate ICS

Unit(s): 0.5

Class Hours: 24 Laboratory total.

This course provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on expanding or Type 3 incidents. Topics include ICS fundamentals review, incident/event assessment, and agency guidance in establishing incident objectives. Unified command, incident resource management, planning process, demobilization, transfer of command and close out. Grade: Pass/No Pass only.

Fire Officer Training 033**ICS-400 Incident Command**

Formerly: Fire Academy 062C, ICS-400 Incident Command

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: ICS-300, Intermediate ICS with a pass. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

This course directs the student towards an operational understanding of large single-agency and complex multi-agency/multi-jurisdictional incident responses. Topics include fundamentals review for command and general staff, major and/or complex incident/even management, area command and multi-agency coordination. Grade: Pass/No Pass only.

Fire Officer Training 036**Training Instructor 1A: Cognitive Lesson Delivery**

Formerly: Fire Academy 241A, Training Instructor 1A

Unit(s): 0.8

Class Hours: 40 Laboratory total.

An introduction to fire service training methods with emphasis on using the occupational analysis, identifying training needs, and training others to perform manipulative skills.

Fire Officer Training 037**Training Instructor 1B: Psychomotor Lesson Delivery**

Formerly: Fire Academy 241B, Fire Instructor 1B

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: OSFM- Training Instructor 1A with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

This course prepares students to train others in technical skills as stipulated for Fire Officer I candidates.

Fire Officer Training 039**Training Instructor 1C: Instructional Development Techniques**

Formerly: Fire Academy 241C, Training Instructor 1C

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Officer Training 036 and 037 with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

Designed for instructors desiring certification as an instructor for the California State Fire Education Systems (CFSTES).

Fire Officer Training 044**Fire Investigation 1A: Fire Origin and Cause Determination**

Formerly: Fire Academy 251A, Fire Investigation 1A

Unit(s): 0.8

Class Hours: 40 Laboratory total.

This course provides the participants with an introduction and basic overview of fire scene investigation. The focus of the course is to provide information on fire scene indicators and to determine the fire's origin.

Fire Officer Training 045**Fire Investigation 1B: Techniques of Fire Investigation**

Formerly: Fire Academy 251B, Fire Investigation 1B

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: OSFM - Investigation 1A with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

This course provides a deeper understanding of fire investigation and builds on Fire Investigation 1A. Topics include the juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives, and fire fatalities.

Fire Officer Training 046**Fire Management 1: Management/Supervision for Company Officers**

Formerly: Fire Academy 261, Fire Management 1

Unit(s): 0.8

Class Hours: 40 Laboratory total.

This course prepares or enhances the first line supervisor's ability to supervise subordinates. It introduces key management concepts and practices, which includes discussions about decision making, time management, leadership styles, personnel evaluations, and counseling guidelines.

Fire Officer Training 047**Fire Command 1A: Command Principles for Company Officers**

Formerly: Fire Academy 271A, Fire Command 1A

Unit(s): 0.8

Class Hours: 40 Laboratory total.

This course provides instruction and simulation time pertaining to the initial decision and action processes at a working fire. Topics include the fire officer, fire behavior, fireground resources, operations, and management.

**Fire Officer Training 048****Fire Command 1B: Incident Management for Company Officers**

Formerly: Fire Academy 271B, Fire Command 1B

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: OSFM-I-200 with a Pass or a minimum grade of B and Fire Command 1A with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

This course provides the student with information on tactics, strategies, and scene management for multi-casualty incidents, hazardous materials incidents, and wildland fires. Each student also has the opportunity to increase his or her knowledge and skills by handling initial operations at these types of incidents through simulation and class activities.

Fire Officer Training 049**Fire Command 1C: I-Zone Fire Fighting For Company Officers**

Formerly: Fire Academy 271C, Fire Command 1C

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Command 1-A and Fire Command 1-B with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course will examine the responsibilities of a company officer assigned to a wildland/urban interface incident. It will familiarize the structure company officer with the specific duties and tasks associated with the wildland incidents.

Fire Officer Training 050**Community Emergency Response Team**

Formerly: Fire Academy 088, City Emergency Response Team

Unit(s): 0.2 - 0.6

Class Hours: 30 Laboratory total.

Educating the public to respond to terrorism response issues, theories, and methodologies for disaster mitigation.

Grade: Pass/No Pass only.

Fire Officer Training 078**S-230 Crew Boss (Single Resource)**

Unit(s): 0.7

Class Hours: 32 Lecture total.

Designed for Fire Personnel qualifying within the Incident Command System as a Crew Boss (Single Resource). Topics include strike team orientation; incident responsibilities; and demobilization/release. Grade: Pass/No Pass only.

Fire Officer Training 078A**S-130 Firefighter Training - Wildland**

Unit(s): 0.7

Class Hours: 32 Lecture total.

Designed to train firefighters in the basic fire behavior factors that will aid them in safe and effective control of wildland fires. Grade: Pass/No Pass only.

Fire Officer Training 078B**S-215L Urban Wildland Interface Firefighting**

Unit(s): 0.7

Class Hours: 32 Lecture total.

S-215L Urban wildland interface firefighting is a course designed to teach fire crews the principles of backfire/burnout and the necessary firing techniques and related firing devices used to accomplish either of these suppression methods.

Grade: Pass/No Pass only.

Fire Officer Training 078C**S-371 Helibase Manager**

Unit(s): 0.7

Class Hours: 32 Lecture total.

Designed for Fire Personnel qualifying within the Incident Command System as a Helibase manager. Topics include: Strike team orientation; position responsibilities; helicopter safety operations and weather condition affecting helicopter landing. Grade: Pass/No Pass only.

Fire Officer Training 078D**ICS 223-10, Wildland Line Emt**

Unit(s): 0.3

Class Hours: 16 Lecture total.

Designed to train firefighters in preserving health and safety of suppression team members during wildland incidents and make available EMT-1 level care in the field. Grade: Pass/No Pass only.

Fire Officer Training 079**S-404 Safety Officer**

Unit(s): 0.5

Class Hours: 24 Lecture total.

Designed to train company/chief officers in the advanced wildland fire safety factors that will aid them in safe and effective control of wildland fires. Not offered every semester. May be repeated. Grade: Pass/No Pass only.

Fire Officer Training 079B**S-231 Engine Boss**

Unit(s): 0.3

Class Hours: 16 Lecture total.

Designed to train company/chief officers in the advanced wildland fire safety factors that will aid them in safe and effective control of wildland fires as an Engine Boss. Not offered every semester. Grade: Pass/No Pass only.

Fire Officer Training 079C**S-330 Task Force-Strike Team Leader**

Unit(s): 0.5

Class Hours: 24 Lecture total.

Designed for fire personnel qualifying within the Incident Command System as a Task force-strike team leader. Topics include Strike team orientation, incident responsibilities, and demobilization/release. Grade: Pass/No Pass only.

Fire Officer Training 080**Motion Picture/Television Safety Officer**

Unit(s): 0.5

Class Hours: 24 Lecture total.

Course is designed to prepare fire personnel in special effects, film production safety and stunt coordination, line producers, location managers and film commissioners. May be repeated. Grade: Pass/No Pass only.

Fire Officer Training 085B**Paramedic Continuing Education**

Unit(s): 0.3

Class Hours: 16 Lecture total.

This course is a 16-hour course of instruction under the LA County EMS program, with associated drug administration, cardiac rhythm interpretation, and systemic trauma training. This course meets departmental requirements for paramedic training. May be repeated. Grade: Pass/No Pass only.

Fire Officer Training 100**Fire Service EMT-1**

Unit(s): 3.0

Class Hours: 105 Lecture, 39 Laboratory total.

State Fire Marshal certified EMT-1 training with emphasis on patient rescue skills in the Fire Science environment. Includes AED training and CPR. May be repeated.

Fire Officer Training 129**Fire Prevention 2A: Fire Protection Systems and Building Components**

Formerly: Fire Academy 232A, Fire Prevention Officer 2A

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: OSFM-Fire Prevention 1A and 1B with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

Meets NFPA 1031 Fire Inspector Professional Qualifications and California State Board of Fire Services standards for Fire Prevention Officer 2A.

Fire Officer Training 132**Fire Prevention 2B: Interpreting the UBC and CCR**

Formerly: Fire Academy 232B, Fire Prevention Officer 2B

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: OSFM-Fire Prevention 1A and 1B with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

This course provides the participants with extensive, in-depth information about the fire and life safety standards of buildings as they relate to Titles 19 and 24. Topics for discussion include types of construction, construction methods and materials, interior finishes, roof coverings, occupancy, and more.



Fire Officer Training 133
Fire Prevention 2C: Special Hazard Occupancies
Formerly: Fire Academy 232C, Fire Prevention 2C: Special Hazard Occupancies

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Fire Protection regulation, design and inspection of special hazard occupancies. Meets NFPA 1031 Fire Inspector professional qualifications and CFSTES standards for Fire Prevention Officer II.

Fire Officer Training 134
Fire Prevention 3A: Hydraulic Sprinkler Calculations
Formerly: Fire Academy 233A, Fire Prevention 3A

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Prevention 2A, 2B and 2C with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

Specialized and technical information regarding fire protection sprinkler design. This course will review the mathematics and drafting skills necessary to design systems.

Fire Officer Training 135
Fire Prevention 3B: Plan Review
Formerly: Fire Academy 233B, Fire Prevention Officer 3B

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Prevention 2B with a minimum grade of 80%. Students must bring documentation of prerequisite to first class meeting. Failure to comply will result in student being dropped.

This course provides hands-on training. Topics include codes, standards and local amendments, site-plan review, building construction and characteristics, fire protection equipment, multi-family occupancies, commercial buildings, care facilities, drinking/dining facilities, shopping malls, and high-rise buildings.

Fire Officer Training 140
Fire Instructor 2A: Techniques of Evaluation
Formerly: Fire Academy 242A, Fire Instructor 2A

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: OSFM-Fire Instructor 1A, or Training Instructor 1A, 1B, and 1C with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting; failure to comply will result in student being dropped.

This course provides the instructor/supervisor with the techniques of evaluation. Course includes: construction of written and performance tests, as well as test planning, test analysis, test security, and evaluation of test result effectiveness.

Fire Officer Training 141
Fire Instructor 2B: Group Dynamics and Problem Solving
Formerly: Fire Academy 242B, Fire Instructor 2B

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: OSFM-Fire Instructor 1A, 1B and 2A with a minimum grade of B; or Training Instructor 1A, 1B and 1C with a minimum grade of B. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course is designed to develop leadership skills. Group dynamics, problem-solving techniques, and interpersonal relations are utilized in staff meetings, brainstorming sessions, and conference meetings. Skills are developed for conducting formal public meetings, panel discussions, and forums.

Fire Officer Training 142
Fire Instructor 2C: Employing Audiovisual Aids
Formerly: Fire Academy 242C, Fire Instructor 2C

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Instructor 1A and 1B with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course covers the principles and selection of media in the instructional process, employment of basic and advanced forms of instructional media, use of computers in the instructional process, and individualized instruction programs. Teaching demonstrations are required of all participants.

Fire Officer Training 143
Fire Instructor 3: Master Instructor Competency Evaluation
Formerly: Fire Academy 243, Fire Instructor 3 (Master Instructor)

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: One of the following four Level 1 options: 1) Fire Instructor 1A and 1B or 2) Fire Instructor 1A, Training Instructor 1A and 1C or 3) Fire Instructor 1B, Training Instructor 1B and 1C or 4) Training Instructor 1A, 1B, 1C and Fire Instructor 2A, 2B, 2C. All courses must have been passed with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course provides information necessary to deliver the Training Instructor 1A, 1B, and 1C courses and gives additional instruction in classroom communications. Students will adapt a current training instruction cognitive lesson plan and deliver a 30-minute teaching demonstrations. This course is mandatory for a person who desires to teach Training Instructor 1A, 1B, or 1C.

Fire Officer Training 144
Fire Investigation 2A: Criminal and Legal Procedures
Formerly: Fire Academy 252A, Fire Investigation 2A

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Investigation 1A and 1B, with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course provides information on conducting an explosive investigation and a surveillance operation, preparing a search warrant, testifying as an expert witness, assembling a curriculum vitae, and properly documenting a criminally caused fire. In addition, each student will be assigned to an investigative team to conduct an investigation of his/her own criminally caused fire. During this practical exercise, each team will be required to conduct the scene investigation, properly collect and document supportive evidence, prepare their written case report, and present their finding to a district attorney and a judge to review.

Fire Officer Training 145
Fire Investigation 2B: Field Case Studies
Formerly: Fire Academy 252B, Fire Investigation 2B

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Investigation 1A and 1B with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course provides advanced instruction in fire scene investigation, case preparation, and courtroom presentation. Topics include review of fire scene photography, sketching, evidence collection, interviewing and interrogation, and extensive use of simulations for developing and presenting an arson case.

**Fire Officer Training 146**

Fire Management 2A: Organizational Development and Human Relations
Formerly: Fire Academy 262A, Fire Management 2A, Leadership and Effective Communication

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Management 1 with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course provides information on the foundations of 1) individual behavior, personality and emotions, motivational concepts, individual decision making; 2) group behavior, work teams, group dynamics, group communication, conflict and negotiations, power and politics, leadership and creating trust; and 3) organizational structure, human resources policies and practices, organizational culture, and organizational change and development.

Fire Officer Training 147

Fire Management 2B: Fire Service Financial Management

Formerly: Fire Academy 262B, Fire Management 2B: Financial Management

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Management 1 with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course is designed to provide insight into the cyclical nature of budgeting and financial management. As a management course, the student will become familiar with essential elements of the financial planning, budget preparation, budget justification, and budget controls.

Fire Officer Training 148

Fire Management 2C: Personnel and Labor Relations

Formerly: Fire Academy 262C, Fire Management 2C, Personnel and Labor Relations

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Management 1A and Fire Command 1B with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course is designed to provide a fire manager with knowledge and insight of personnel, human resource, diversity management, legal mandates, labor relations, and related areas. Topics include areas of organizational development, productivity, recruitment and selection, performance systems, discipline, and collective bargaining.

Fire Officer Training 149

Fire Management 2D: Strategic Planning
Formerly: Fire Academy 262D, Fire Management 2D, Master Planning

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Designed to educate Chief Officers on the strategic planning process and why each of the steps is critical for success.

This course will provide advice and tools to assist in the strategic planning process. This course is intended to be consistent with critical elements of the accreditation process and its associated self-assessment manual.

Fire Officer Training 150

Fire Management 2E: Ethics and the Challenge of Leadership

Formerly: Fire Academy 262E, Fire Management 2E, Contemporary Issues and Concepts

Unit(s): 0.8

Class Hours: 40 Laboratory total.

In this course, students will correlate personal core values and characteristics to ethical decisions and behaviors. Students will explore ethical and principle-centered leadership, including ethical systems, ethical dilemmas, and ethical decision-making models. Students will examine challenges and develop strategies for leading in public safety organizations serving diverse and dynamic communities.

Fire Officer Training 151

Fire Command 2A: Command Tactics At Major Fires

Formerly: Fire Academy 272A, Fire Command 2A, Command Tactics at Major Fires

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: I-300, Intermediate ICS, with a pass and Fire Command 1A with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course prepares the officer to use management techniques and the Incident Command System when commanding multiple alarms or large suppression forces.

Fire Officer Training 152

Fire Command 2B: Management of Major Hazardous Materials Incidents
Formerly: Fire Academy 272B, Fire Command 2B, Management of Major Hazardous Materials Incidents

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Command 1A with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course provides Incident Commanders with the skills and competency necessary to mitigate an incident, initiate remedial action, and ensure the restoration of normal services with a comprehensive resource management approach.

Fire Officer Training 153

Fire Command 2C: High-Rise Fire Fighting Tactics

Formerly: Fire Academy 272C, Fire Command 2C, High-Rise Fire Tactics

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: Fire Command 2A and 2B with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course is delivered using a systematic approach and can be applied to both small and large high-rise buildings.

Topics include prefire planning, building inventory, problem identification, ventilation methods, water supply, elevators, life safety, strategy and tactics, application of the ICS, and specific responsibilities.

Fire Officer Training 154

Fire Command 2D: Planning for Large Scale Disasters

Formerly: Fire Academy 272D, Fire Command 2D, Planning for Large Scale Disasters

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: I-300, Intermediate ICS with a pass and Fire Command 2A with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course includes principles of disaster planning and management, fire service emergency plans, emergency operation centers, case studies of various natural and man made disasters, roles of local, state and federal OES and emergency management agencies, discussion of multi-hazard planning techniques, ICS and SEMS concepts, and principles of exercising emergency management staffs.

**Fire Officer Training 155****Fire Command 2E: Wildland Fire Fighting Tactics**

Formerly: **Fire Academy 273B, Fire Command 2E, Wildland Fire Fighting Tactics**

Unit(s): 0.8

Class Hours: 40 Laboratory total.

Prerequisite: I-300, Intermediate ICS with a pass and Fire Command 1C and 2A with a minimum grade of 80%. Students must bring documentation of prerequisites to first class meeting. Failure to comply will result in student being dropped.

This course will examine California's wildland fire problem, wildland fire safety, weather effects, wildland fuels, wildland fire behavior, initial attack methods, using support equipment, using topographic maps, strategy and tactics, and air attack operations.

FIRE TECHNOLOGY (FTC)**Fire Technology 101****Fire Protection Organization**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Survey of career opportunities in fire service and related fields, history of fire protection; fire loss analysis; public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics.

Fire Technology 102**Fire Behavior and Combustion**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Fundamentals and scientific principles of fire behavior, combustible materials, extinguishing agents, hazardous and toxic materials, and fire prevention/suppression techniques.

Fire Technology 103**Personal Fire Safety**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Provides career directed students, paid/or volunteer firefighters, and fire brigade members demonstrations on current techniques in the prevention of injuries and promotion of safety while conducting routine and emergency fire operations.

Fire Technology 104**Fire Prevention Technology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Fire Technology 101 and 102 with minimum grade of C.

Organization and function of fire prevention; inspections; surveying and mapping procedures; recognition of fire and life hazards; engineering a solution of a fire hazard; enforcing solutions to a fire hazard; public relations as affected by fire prevention.

Fire Technology 105**Bldg Construction for Fire Protection**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Fire Technology 101 and 102 with minimum grade of C.

The components of building construction that relate to fire safety. Elements of construction and design of structures. The development and evolution of building and fire codes.

Fire Technology 106**Fire Protection Equipment and Systems**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Fire Technology 101 and 102 with minimum grade of C.

Portable fire extinguishing equipment; protection systems for special hazards; sprinkler systems; and fire detection and alarm systems.

Fire Technology 121**Physical Fitness for Public Safety Personnel**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Concurrent enrollment in Fire Technology 121L

This lecture class provides information on exercise physiology and nutrition as it relates to public safety personnel. Topics include the components of a fitness program such as metabolic fitness, muscular fitness, body composition and flexibility. Other topics include the FITT principle, specificity and injury prevention, and treatment.

Fire Technology 121L**Physical Fitness for Public Safety Personnel - Performance and Assessment**

Unit(s): 0.3

Class Hours: 16 Laboratory total.

Prerequisite: Concurrent enrollment in Fire Technology 121.

Student will participate in fire, fitness and nutrition specific activities. Focus is on skills and preparation for job requirements. Students will be advised of the specific dates and times for the lab/PAT sessions during first lecture period. Grade: Pass/No Pass only.

FRENCH (FREN)**French 101****Elementary French I**

Unit(s): 5.0

Class Hours: 80 Lecture total.

A college level French course focusing on fundamentals of pronunciation and grammar, basic vocabulary (including common idioms), simple conversation and composition. Supplementary cultural readings. French 101 is equivalent to two years of high school French.

French 102**Elementary French II**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: French 101 or two years of high school French with a passing grade.

A college level French course focusing on further training in pronunciation and grammar, more extensive vocabulary development, conversation and composition. Supplementary cultural readings. French 102 is equivalent to the third year of high school French.

French 201**Intermediate French I**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: French 102 with a minimum grade of C or three years of high school French.

A college level French class focusing on expansive review of usage and grammar; discussion in French of interpretive reading material; conversation; and composition.

French 201H**Honors Intermediate French I**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: French 102 with a minimum grade of C or three years of high school French, and a high school or college GPA of 3.0 or above.

Enhanced and intensive exploration of French civilization, culture, and literature in a seminar setting. In-depth analysis of grammatical structures. Further use of argumentative oral strategies. Independent research by student to use and evaluate library and electronic information sources.

French 202**Intermediate French II**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: French 201, or four years of high school French with a minimum grade of C.

A college level French class focusing on a specialized review of grammar and composition, and discussions in French of history and culture based on literary materials.

French 202H**Honors Intermediate French II**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: French 201/201H with a minimum grade of C, or four years of high school French, and a high school or college GPA of 3.0 or above.

Continuation of intensive exploration of French culture and literature in a seminar setting, review of specialized grammatical structures, and use of argumentative oral strategies. Independent research by students to use and evaluate library and electronic information sources.

**French 211****Intermediate Conversation and Composition I**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: French 102 with a minimum grade of C.

Intermediate conversational techniques.

A review of language structure through discussion, conversation, reading and composition. Discussions of French culture and civilization.

French 214**Intermediate Conversation and Composition II**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: French 201 with a minimum grade of C or concurrent enrollment in French 202.

Further development of conversational and composition skills through cultural and current events and readings. Vocabulary development and idiom usage in a cultural context.

GEOGRAPHY (GEOG)**Geography 100 (C-ID GEOG 125)****World Regional Geography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The study of major world political and natural regions. Course study includes location of the regions on earth, the physical and cultural elements that lend the regions their identities, and ways in which these elements relate to the regions' inhabitants and economies. May be repeated.

Geography 100H (C-ID GEOG 125)**Honors World Regional Geography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Enriched and intensive study, including seminar approach with individual written and oral presentations of major world political and natural regions. Course study includes location of the regions on earth, the physical and cultural elements which provide the regions with their identities, and ways in which these elements relate to the regions' inhabitants and economies. May be repeated.

Geography 101 (C-ID GEOG 110)**Physical Geography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to the physical elements of geography: maps, earth/sun relationships, meteorology and climatology, natural vegetation, soils, and geomorphology.

Geography 101L (C-ID GEOG 111)**Physical Geography Laboratory**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Laboratory exercises and experiments designed to explore and understand the primary areas of physical geography. Exercises and applications related to map scales and projections, stereoscopic, topographic and aerial photo interpretation, meteorological tools and models and weather prognostication, geomorphologic models and processes, and landform interpretation.

Geography 102 (C-ID GEOG 120)**Cultural Geography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introductory survey of the geography of culture, and the influences of the physical environment on culture, along with the impact of human activity on the environment, and the role of culture within societies and social groups. The course includes global patterns of population, migration, religion, language, agriculture, politics, customs, resources, and urban and rural settlement.

GEOLOGY (GEOL)**Geology 101****Introduction to Geology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course for students in any major. Study of the internal and external processes that shape the earth (earthquakes, volcanoes, groundwater, streams, landslides). Optional field trip offered. Concurrent enrollment in Geology 101L is recommended.

Geology 101L**Introduction to Geology Laboratory**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Geology 101 with a minimum grade of C or concurrent enrollment.

Study of the common minerals and rocks. Map reading and interpretation of geology using topographic maps, geologic maps and aerial photos.

Geology 111**Dinosaurs and the Geology of the Mesozoic Era**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Study of the classification, evolution, and characteristics of the major groups of dinosaurs and other contemporary life with emphasis on the mass extinctions at the end of the Mesozoic era. Required one-day field trip.

Geology 112**Earthquakes**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Introduction to earthquakes, the processes that cause them, and the results of their occurrences. Required one-day field trip.

Geology 140**Environmental Geology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to environmental geology, the interaction between the Earth and mankind. Global study of geologic resources, resource management, geologic hazards, and waste remediation (same as Environmental Studies 140).

Geology 150**Introduction to Oceanography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory study of the ocean and its topography, sediments, circulation, shoreline processes, biological productivity and mineral resources (same as Earth Science 150).

Geology 150H**Honors Introduction to Oceanography**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: High School or college G.P.A. of 3.0 or above.

An enriched study of the ocean's topography, sediments, circulation, shoreline processes, biological productivity and mineral resources (same as Earth Science 150H).

Geology 161**Geological Field Studies of the Southern San Andreas Fault**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Field study of the geology ecology and history of the southern section of the San Andreas Fault, from the Garlock Fault to the Salton Sea. Mandatory orientation along with two days of field study. May be repeated.

Geology 162**Geologic Field Studies of the Mojave Desert**

Unit(s): 1.0

Class Hours: 16 Lecture total.

The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the Mojave Desert region. Mandatory orientation along with a two-day field trip. May be repeated.

**Geology 163****Geologic Field Studies of the Northern San Andreas Fault**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Field study of the geology, ecology and history of the San Andreas Fault from the Garlock Fault to Point Reyes. Mandatory orientation along with a five day field study.

Geology 164**Geologic Field Studies of the Eastern Sierra Nevada**

Unit(s): 2.0

Class Hours: 32 Lecture total.

The geologic history including mountain building, volcanic activity, glaciation, faulting, and mineral resources of the eastern Sierra Nevada from Red Rock Canyon to Mammoth Lakes. Mandatory orientation along with a five-day field trip. May be repeated.

Geology 165**Geologic Field Studies of the Western Mojave Desert**

Unit(s): 1.0

Class Hours: 16 Lecture total.

The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the western Mojave Desert region. Mandatory orientation along with a two-day field study. May be repeated.

Geology 166**Geologic Field Studies of the Sierra Nevada**

Unit(s): 2.0

Class Hours: 32 Lecture total.

A study of the geologic history, structure, and tectonics of the Sierra Nevada. Mandatory orientation along with a five-day field trip. May be repeated.

Geology 167**Geologic Field Studies of the Eastern Mojave Desert**

Unit(s): 1.0

Class Hours: 16 Lecture total.

The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the eastern Mojave Desert region. Mandatory orientation along with a two-day field study. May be repeated.

Geology 168**Geologic Field Studies of the Owens Valley**

Unit(s): 1.0

Class Hours: 16 Lecture total.

A study of the volcanic, pluvial, and fault history as recorded in rocks from Red Rock Canyon to Owens Lake. Mandatory orientation along with a two-day field trip. May be repeated.

Geology 169**Geologic Field Studies of San Diego County**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Field study of the geology, ecology and history of the peninsular ranges and the San Diego County coastline. Mandatory orientation along with a two-day field study. May be repeated.

Geology 170**Geologic Field Studies of the Anza-Borrego Desert State Park**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Field study of the geology, ecology, and history of the Anza-Borrego Desert State Park. Mandatory orientation along with a two-day field study. May be repeated.

Geology 171**Geologic Field Studies of Sequoia and Kings Canyon National Parks**

Unit(s): 1.0

Class Hours: 24 Lecture total.

A study of the geologic history, structure, and tectonics of the Sequoia and Kings Canyon areas. Mandatory orientation along with a three-day field study. May be repeated.

Geology 172**Geologic Field Studies of the California Coast**

Unit(s): 2.0

Class Hours: 32 Lecture total.

A study of the coastal rocks, fossils and faults, as well as coastal oceanographic processes from Malibu to Monterey. Mandatory orientation along with a five-day field study. May be repeated.

Geology 173**Geologic Field Studies of Death Valley**

Unit(s): 1.0

Class Hours: 16 Lecture total.

The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the Death Valley region. Mandatory orientation along with a two-day field trip. May be repeated.

Geology 174**Geologic Field Studies of Joshua Tree National Park**

Unit(s): 1.0

Class Hours: 16 Lecture total.

The geologic history including mountain building, volcanic activity, faulting, mineral resources and human history of the Joshua Tree region. Mandatory orientation along with a two-day field trip. May be repeated.

Geology 176**Geologic Field Studies of the San Bernardino and San Gabriel Mountains**

Unit(s): 1.0

Class Hours: 16 Lecture total.

A study of the rocks, structure, tectonics, and geologic history of the San Bernardino and San Gabriel Mountains. Mandatory orientation along with two one-day field trips. May be repeated.

Geology 201**Introduction to Historical Geology**

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Introductory geology course investigating the former landscapes and inhabitants of the Earth as preserved in the rock record with an emphasis on North America. Two optional one-day field trips.

HISTORY (HIST)**History 101****World Civilizations to the 16th Century**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Examines the development of world civilizations and their interrelationships from the earliest beginnings to the sixteenth century. Emphasis on basic ideas, institutions, personalities, religious traditions, and artistic achievements.

History 101H**Honors World Civilizations to the 16th Century**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An enriched approach designed for honors students that includes individual research as well as small group analysis of historical problems. Emphasis on the development of world civilizations and their interrelationships, basic ideas, institutions, personalities, and artistic achievements from the earliest beginnings to the sixteenth century.

History 102**World Civilizations Since the 16th Century**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Broad historical study of world civilizations and their interrelationships from the 16th century to the present. Ideas, institutions, personalities, and artistic achievements which have contributed to present-day society.

**History 102H****Honors World Civilizations Since the 16th Century**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An enriched approach designed for honors students with emphasis on individual research as well as small group analysis of historical problems. Broad historical study of world civilizations and their interrelationships from the 16th century to the present. Ideas, institutions, personalities, and artistic achievements which have contributed to present day society.

History 105**Ancient Mesoamerican Civilization**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An archeological and ethnohistorical survey of the origin and development of pre-Columbian civilizations in ancient Mesoamerica from Paleo-Indian times to the Spanish conquest (same as Anthropology 105).

History 118**Social and Cultural History of the United States**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Examines social and cultural traditions during major historical periods. Focuses on American attitudes and response to economic and technological changes, aesthetics, music, art, language, architecture, folklore, high and popular culture.

History 120**The United States to 1865**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Examines major political, economic, intellectual, and social forces at home and abroad that shaped American life from the colonial period through the Civil War.

History 120H**Honors the United States to 1865**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Seminar-style, content-enriched course for Honors students that examines major political, economic, intellectual, and social forces at home and abroad shaping American life from colonial period through Civil War.

History 121**The United States Since 1865**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A critical analysis of American history. Includes industrial and technological development, the changing nature of society, cultural developments, domestic politics, and America's expanded world role.

History 121H**Honors the United States Since 1865**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Seminar-style, content-enriched course for honors students exploring a critical analysis of American history including industrial and technological development, the changing nature of society, cultural patterns, domestic politics, artistic attainments, and America's expanded world role.

History 123**African American History to 1865**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Surveys the history of African Americans in the United States from their African origins through the Civil War. Emphasizes African American impact on U.S. economic and political life, and highlights the effect slavery had on selected American thinkers.

History 124**Mexican American History in the United States**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Survey of Mexican-American history in the U.S. from the Pre-Columbian period to the present. Emphasis on Mexican American contributions to the political, social, economic, and cultural development of the U.S. Will also examine the relationship of Mexican-Americans to other cultural groups.

History 124H**Honors Mexican American History in the United States**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Enriched and intensive survey of Mexican-American history in the U.S. from the Pre-Columbian period to the present. Utilizing a seminar approach, emphasis on Mexican-American contributions to the political, social, economic, and cultural development of the U.S. Will also examine the relationship of Mexican-Americans to other cultural groups.

History 125**Native Americans in the U.S.**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An historical and contemporary survey of Native Americans in the United States, including the development of tribes and nations, and the cultural practices of Native Americans today (same as Anthropology 125).

History 127**Women in U.S. History**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Women of European, African, Native, Hispanic, and Asian backgrounds examined in U.S. 1607-present. Emphasis on individuation, social status, family, reproduction, child care, slavery, jobs, and political activism. Legal impact and theories of patriarchal oppression raised.

History 133**History of California**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An examination of the major social, political, and economic developments that have shaped California history from the indigenous period to the present. Special attention is given to regional issues, ethnic or cultural groups, constitutional matters, cultural change, and California's connection with the Pacific Basin.

History 146**African American History From 1863 to The Present**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Survey of the history of African Americans in the United States from Reconstruction to the present. Focuses on the economic, political and social aspects of racism and the varied efforts to advance civil rights.

History 150**Latin American Civilization to Independence**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A study of Latin American civilization from the Indian, African, and European origins to Independence. Topics include native cultures, Spanish and Portuguese colonialism, the evolution of regional societies, and intellectual trends.

History 151**Modern Latin American Civilization**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Latin American civilization in the nineteenth and twentieth centuries with a focus on the historical background of contemporary conditions and issues. Major and minor countries studied.

History 153**History of Mexico**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Mexican history from the pre-Columbian period to the present. Includes social, political, economic and cultural growth of the Mexican nation. Emphasis on cultural and political development.

**History 163****Introduction to Southeast Asia History**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Analyzes the general history of Southeast Asia's society, economy, government, religion, philosophy, and the arts. Also includes the impact of the West, decolonization and national unification movements during the Cold War, and the historical background of contemporary social and political problems.

History 181**Survey of Chicana/Latina Women's History**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Survey of the historical roots of modern-day Chicana/Latina women. Course will discuss women in pre-columbian America, colonial women in Mexico and the Southwest U.S., as well as Chicana/Latina women in a national/international context, labor, and culture.

HUMAN DEVELOPMENT (HUD)**Human Development 070****Early Childhood Education: Introductory Principles and Practices (DS3)**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Bilingual (Spanish/English) course designed to introduce Spanish speaking students who are considering a career as teachers or aides to the scope of early childhood education. This class meets state licensing requirements for aides and limited-English caregivers in Early Childhood Education programs. Suggested Preparation: Beginning ESL 2. May be repeated.

Human Development 102**Exploring Parenting**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A comprehensive introduction to parenting that demonstrates how parents and caregivers interact to translate their feelings, care, and nurturing of children into effective parenting/caregiving behaviors. Designed to acquaint caregivers and parents with brain-age appropriate parenting and/or caregiving strategies to enhance the development of children from birth through adolescence.

Human Development 107 (C-ID CDEV 100)**Child Growth and Development (DS1)**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course examines the major physical, psychosocial, and cognitive/language developmental milestones for children, from conception through adolescence. Using developmental theories and research methodologies, course emphasis will be on typical and atypical development, maturational processes, and environmental factors. Students will also observe children, evaluate individual differences, and analyze characteristics of development at various stages.

Human Development 108A (C-ID ECE 200)**Observation and Assessment for Early Learning and Development**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Human Development 107 with a minimum grade of C. Negative TB Test (must be completed before observations take place during the semester).

This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play, and learning to join with families and professionals in promoting children's success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored.

Human Development 110 (C-ID CDEV 110)**Child, Family and Community (DS2)**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This class examines the developing child in a societal context, focusing on the interrelationship of family, school and community, and emphasizes historical and socio-cultural factors. Socialization processes and identity development that support and empower families by showing the importance of respectful, reciprocal relationships will be explored.

Human Development 111A (C-ID ECE 120)**Principles and Practices of Teaching Young Children**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Human Development 107 and 108A with a minimum grade of C. Negative TB Test (need to complete before observation during the course).

This course examines the underlying historical and theoretical principles, and the developmentally appropriate practices of early childhood programs and environments. Emphases will be on the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all children. The evolution of professional practices promoting advocacy, ethics and professional identity will be explored.

Human Development 111B**Introduction to Curriculum for Young Children**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Human Development 108A and Human Development 111A with a minimum grade of C. Negative TB Test.

This course presents an overview of knowledge and skills needed to provide developmentally appropriate curriculum for young children. Students will examine the teacher's role in supporting development, fostering the joy of learning and creativity through the essential role of play. Content areas include language/literacy, social/emotional/sensory learning, art, music, math, science, health/safety, and motor development.

Human Development 112 (C-ID ECE 220)**Health, Safety and Nutrition for Children**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course examines the regulations, policies, procedures and best practices for early childhood curriculum related to health, safety, food, and nutrition while supporting child development through everyday planning and school programming. The importance of collaboration between families and health and school professionals to ensure physical and mental health of all children, families, and professionals will be explored. Students must show proof of negative TB test results. Field trips to local child development centers may be included. Suggested preparation: Six units of human development classes

Human Development 114**Careers in Teaching**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Introduction to the teaching profession, culturally diverse student populations, career ladders and options, academic preparation, experience, and credentials required for employment, utilizing career assessments, principles of goal setting, and exposure to teaching environments and teaching professionals. Students will formulate a career objective and develop an educational plan (same as Counseling 114).

Human Development 116A**Infant/Toddler Growth and Development (DS4)**

Unit(s): 3.0

Class Hours: 48 Lecture, 6 Laboratory total.

Prerequisite: Human Development 107 with a minimum grade of C.

Examination of the growth and developmental patterns of infants and toddlers and interactions with culturally diverse family structures. Meets licensing requirement. With Human Development 116B, this class fulfills infant/toddler specialization for Child Development Master Teacher Permit.



Human Development 116B
Programming for Infants and Toddlers (DS4)
 Unit(s): 3.0

Class Hours: 48 Lecture, 3 Laboratory total.
 Prerequisite: Human Development 107 with a minimum grade of C.

Focuses on the implementation of quality, developmentally appropriate, infant/toddler programs, including curriculum, environment, planning and interactions among staff, children, and parents. Cultural sensitivity to the diversity of staff and families within such programs will be addressed. Meets licensing requirement. With Human Development 116A, this course fulfills Infant/Toddler Specialization for Child Development Master Teacher permit.

Human Development 120
Development of the School Age Child (DS5)
 Unit(s): 3.0

Class Hours: 48 Lecture total.

An examination of the physical, cognitive, personality, and social development of children between the ages of five and twelve years. Attention will be paid to the scientific study of middle childhood, developmental trends, and issues of diversity. Not offered every semester.

Human Development 121
School Age Child Care Activities (DS5)
 Unit(s): 3.0

Class Hours: 48 Lecture total.
 Prerequisite: Human Development 120 with a minimum grade of C.

Focus on school age creative activities, including planning and implementing an appropriate before and after school curriculum. Attention will be paid to integrating academics, recreation, and creative activities suitable for school age child care programs.

Human Development 200
Computer Literacy for Early Childhood Educators
 Unit(s): 3.0

Class Hours: 48 Lecture total.
 An introduction to computer concepts and digital camera use strategies for child development teachers which will allow them to understand and evaluate the impact of technology as it relates to growth and development of children and developmentally appropriate practices. Basic knowledge and practice in computer operation, word processing, internet operation and research, email, and selecting software applications will be included.

Human Development 205
Exceptionality and Special Needs in Human Development
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of diseases and disorders found in children resulting in exceptionality, including intellectual disability; visual, speech, and hearing impairments; behavior disorders, learning disabilities; and physical and health impairments.

Human Development 208
Working With Families of Children With Special Needs
 Unit(s): 3.0

Class Hours: 48 Lecture total.
 Prerequisite: Human Development 205 with a minimum grade of C.

This course will provide teachers, intervention assistants, administrators, and parents the tools necessary to support families of children with disabilities and other special needs in early childhood and school age programs. Techniques, strategies and resources will be provided to support children in a natural and/or inclusive educational setting and to empower the advocacy of parents.

Human Development 210
Creative Music Experiences for Young Children
 Unit(s): 2.0

Class Hours: 32 Lecture total.

Explores musical expression through songs and ballads, the elements of music, and diverse types of instruments as used in the early childhood curriculum. Includes the study of musical growth and development in young children and the use of music as a classroom management tool.

Human Development 214
Creative Art Experiences for Children
 Unit(s): 1.5

Class Hours: 16 Lecture, 24 Laboratory total.

Emphasizes the child's (ages 2 through 8 years) ability to represent and expressively use art media. Includes theoretical as well as practical application and role of the adult in fostering creativity.

Human Development 215
Administration of Early Childhood Programs: Level I (DS6)
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Application of the basic principles for the establishment, operation, supervision and evaluation of early care and education programs. Suggested preparation: 12 units in Human Development.

Human Development 216
Administration of Early Childhood Programs: Level II (DS6)
 Unit(s): 3.0

Class Hours: 48 Lecture total.

An examination of the complex role of the administrator of early care and education programs in the areas of establishing and maintaining program quality, selecting, hiring, and supporting staff, establishing and facilitating parents, advisory and community relations, and operating a fiscally sound program. Suggested preparation: 12 units in Human Development.

Human Development 220
The Child as Victim
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Exploration of battered, molested, and neglected children from five vantage points: child, law, parents, social services and educator (same as Counseling 220).

Human Development 221 (C-ID ECE 230)
Teaching in a Diverse Society
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Examination of the development of social identities in diverse societies, and implications of oppression and privilege as they apply to young children, families, programs, classrooms, and teaching. Classroom strategies will be explored, emphasizing culturally and linguistically appropriate anti-bias approaches, self-examination, and reflection on issues related to social identity, stereotypes and bias, social and educational access, media and schooling.

Human Development 229
Brain Development and Learning
 Unit(s): 3.0

Class Hours: 48 Lecture total.

This class explores the development of the brain for children birth through adolescence, and how behavior and learning are affected. Brain-based learning strategies will be used to teach new ways of approaching learning, including how to understand diverse learning styles. This course is designed for educators, parents, and students or anyone interested in knowing more about how the organ of learning, the brain, operates.



Human Development 230
Child Guidance and Classroom Management
 Unit(s): 2.0

Class Hours: 32 Lecture total.

This course will explore expectations about young children's behavior and the importance of teacher interaction skills in addressing and dealing with behavior issues. Behavior expectations will be defined, skills for dealing with various behaviors will be developed, and a file of community resources in regards to behavioral issues will be created. It is advised that participants take this course in conjunction with working in a classroom setting.

Human Development 231
Developing Language and Literacy in Young Children

Unit(s): 3.0

Class Hours: 48 Lecture total.

Designed to introduce students to basic concepts of first and second language acquisition and literacy in young children, including classroom applications.

Human Development 232
Math and Science Methods for Early Learning Environments

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduces early learning teachers to basic math and science principles and the standards established by the National Council of Teachers of Mathematics and the National Science Content Standards for early learning environments. Includes theoretical and practical applications for problem-solving and critical thinking that are common to math and science. Students will develop a personal file of appropriate math/science activities for early learning. May be repeated.

Human Development 250
Adult Supervision/Mentor Teacher in Early Childhood Programs

Unit(s): 2.0

Class Hours: 32 Lecture total.

For the experienced teacher, a study of the methods and principles of supervising adults in early childhood classrooms. Emphasis is on the role of experienced classroom teachers who function as supervisors/mentors to new teachers and staff while simultaneously addressing program quality and the needs of children, parents, and other staff.

Human Development 251
Mentor Seminar

Unit(s): 0.5

Class Hours: 8 Lecture total.

Prerequisite: Human Development 250 with a minimum grade of C.

This course will discuss pertinent, professional-interest seminars providing information, guidance and peer support for mentors in the California Early Childhood Mentor Program. Grade: Pass/No Pass only.

Human Development 298A (C-ID ECE 210)
Practicum in Early Childhood Programs

Unit(s): 3.5

Class Hours: 32 Lecture, 75 Laboratory total.

Prerequisite: Human Development 111B with a minimum grade of C. This is a Capstone Course to be taken after all other courses in this major (Courses include: Human Development 107, 108A, 110, 111A, 111B, 112, 200, 221, 231). Negative TB Test.

Under guided supervision in a RSCCD Child Development Center or approved mentor site, students will demonstrate competency in connecting theory to practice, and enhance professional-behaviors. Students will plan and implement child-centered, play-oriented approaches to teaching, learning, and assessment. Knowledge of curriculum content areas will be emphasized as students design, implement, and evaluate positive experiences for young children.

Human Development 298B
Practicum in Infant/Toddler Programs

Unit(s): 3.5

Class Hours: 32 Lecture, 75 Laboratory total.

Prerequisite: Human Development 116B with a minimum grade of C. This is a Capstone Course to be taken after all other courses in this major. (Courses include: Human Development 107, 108A, 110, 112, 116A, 116B, 200, 221, 231). Negative TB Test.

Under guided supervision in a RSCCD Child Development Center or approved mentor site, students will demonstrate competency in connecting theory to practice and enhance professional behaviors. Students will plan and implement child-centered, play-oriented approaches to teaching, learning, and assessment. Knowledge of curriculum content areas will be emphasized as students design, implement, and evaluate positive experiences for young children.

Human Development 299
Cooperative Work Experience Education

Unit(s): 1.0 - 4.0

Class Hours: 6 Lecture, 240 Lecture total.

Prerequisite: 2 units of Human Development courses completed.

Supervised field experience with school-aged children, including new tasks in major. Student can earn 1 unit of credit for 60 hours worked up to 240 hours for 4 units.

INTERDISCIPLINARY STUDIES (IDS)

Interdisciplinary Studies 117H
Honors Introduction to Global Studies

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

A multidisciplinary, student-driven, social science course dealing with a conceptual approach to the cultural, political and economic implications of globalization. Study groups and individual computer-based research focus on the geographic, historical, and contemporary settings of globalization as well as the development of cross-cultural and comparative research methodologies and analysis.

Interdisciplinary Studies 121
Humanities Through the Arts

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to the humanities through a study of seven major art forms: film, drama, music, literature, painting, sculpture and architecture. Artistic works are considered from the perspectives of historical development, the elements used in the creation process, artistic form, and meaning expressed.

Interdisciplinary Studies 155
Human Sexuality

Unit(s): 3.0

Class Hours: 48 Lecture total.

An interdisciplinary review of the biological development and psychological influences across the lifespan, including neuroscience research and sociocultural considerations in the areas of gender, attraction, attachment, love, sexual orientations, anatomy, sexual arousal and response, conception, contraception, reproduction, health, including sexual coercion, and sexually transmitted infections.

Interdisciplinary Studies 200
Introduction to Liberal Studies

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101 or 101H with a minimum grade of C.

This survey course explores the historical foundations and interdisciplinary nature of Liberal Studies. Will examine the nature, history, and intersections of prevailing ideas on a specific topic through the arts and humanities, social and political thought, and scientific inquiry. Readings will reflect gender and cultural diversity.



ITALIAN (ITAL)

Italian 120

Elementary Italian I

Unit(s): 5.0

Class Hours: 80 Lecture total.

Pronunciation, grammar, speaking, reading, listening, writing, common idioms and cultural insights. Italian 120 is equivalent to 2 years of high school Italian.

Italian 121

Elementary Italian II

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Italian 120 with a minimum grade of C or two years of High School Italian.

Mastery of pronunciation and basic grammatical structures. Further training in reading, writing, and speaking to promote fluent and idiomatic communication. Italian 121 is equivalent to the third year of high school Italian.

JAPANESE (JAPN)

Japanese 101

Elementary Japanese I

Unit(s): 5.0

Class Hours: 80 Lecture total.

A college level Japanese course focusing on fundamentals of pronunciation and grammar, basic vocabulary (including common idioms), simple conversation, and composition. Supplementary cultural readings. Japanese 101 is equivalent to two years of high school Japanese.

Japanese 102

Elementary Japanese II

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Japanese 101 or equivalent, or two years of high school Japanese with a passing grade.

A college level Japanese course focusing on further training in language skills, providing avenues for the expression of ideas in both oral and written forms. Additional study of culture. Japanese 102 is equivalent to the third year of high school Japanese.

KINESIOLOGY ACTIVITIES (KNAC)

Kinesiology Activities 107A

Beginning Badminton

Formerly: Kinesiology Activities 107,

Badminton

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction and practice includes the development of basic skills, techniques, and rules and strategies. A combination of Kinesiology Activities 107A, 160A, 169A, and Kinesiology Adapted Activities 205A may be taken a maximum of four enrollments.

Kinesiology Activities 123

Personal Fitness Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Activity course designed to assist students in mastering effective lifestyles, and nutritional, cardiovascular, and resistance training techniques crucial for personal fitness and personal growth. Goal setting and motivation, time management, stress management, as well as development of an individual fitness routine and execution of that routine are the primary topics.

Kinesiology Activities 140A

Beginning Karate

Formerly: Kinesiology Activities 140, Karate

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This course is designed to offer instruction in the Japanese art of Karate for beginning level students. Basic movements such as stances, blocking, kicking and striking are taught.

Kinesiology Activities 150A

Beginning Hatha Yoga

Formerly: Kinesiology Activities 150, Hatha

Yoga

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This class is an investigation of the history, philosophy, and practice of physical Hatha Yoga. Physical exercises are designed to improve muscle tone, flexibility, breath control, relaxation, and unity of mind, body and spirit. 35.A combination of Kinesiology Activities 150A, 170A, and Kinesiology Aerobic Fitness 150A may be taken a maximum of four enrollments.

Kinesiology Activities 155A

Beginning Self-Defense

Formerly: Kinesiology Activities 155, Self-

Defense

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction in personal safety and self-protection, including the effective use of hands, knees, elbows, feet, and the mind. Proficiency with everyday objects such as weapons and defense against common street weapons is also stressed. A combination of Kinesiology Activities 140, 155A, Kinesiology Aerobic Fitness 156, 156A, and 156B may be taken a maximum of four enrollments.

Kinesiology Activities 160A

Beginning Tennis

Formerly: Kinesiology Activities 160, Tennis

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction and practice in the fundamental skills basic to the successful performance of tennis. These skills include grip and body mechanics involved with the forehand, backhand, serve, lob, smash, and net play. Etiquettes, court strategy, and rules will be covered in singles and doubles play. Tournament play will be introduced. A combination of Kinesiology Activities 107A, 160A, 169A, and Kinesiology Adapted Activities 205A may be taken a maximum of four enrollments.

Kinesiology Activities 169A

Beginning Wrestling

Formerly: Kinesiology Activities 169, Wrestling

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Fundamentals of wrestling skills and techniques. Take-downs, escape, analysis of opponents strengths and weaknesses will be considered. Student will master rules, regulations, and ethics of the activity. A combination of Kinesiology Activities 107A, 160A, 169A, and Kinesiology Adapted Activities 205A may be taken a maximum of four enrollments.

Kinesiology Activities 170A

Beginning Yoga

Formerly: Kinesiology Activities 170, Yoga

Unit(s): 1.0

Class Hours: 48 Laboratory total.

An exercise program involving postures to increase flexibility and core muscle strength as a way of improving and enhancing physical and mental alertness. A combination of Kinesiology Activities 150A, 170A, and Kinesiology Aerobic Fitness 150A may be taken a maximum of four enrollments.

Kinesiology Activities 200A

Beginning Intramural-Basketball

Formerly: Kinesiology Activities 200,

Intramural Sports-Basketball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This class is designed to introduce/better acquaint students to the game of basketball. Emphasis is placed on rules, techniques, safety, and improving performance. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.



Kinesiology Activities 200B
Intermediate Intramural Sports- Basketball
Formerly: Kinesiology Activities 200,
Intramural Sports- Basketball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Activities 200A with a minimum grade of C.

This class is designed to provide students with an opportunity to participate and compete against classmates in the sport of basketball. Instruction focuses on improving performance in all aspects of the game of basketball: defense, offense, strategies, and special situations. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 200C
Advanced Intramural Basketball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Activities 200B with a minimum grade of C.

This class is designed to provide students with an opportunity to participate and compete against classmates in the sport of basketball. Instruction focuses on improving performance in all aspects of the game of basketball: advanced defense, advanced offense, advanced strategies, and special situations associated with the game of basketball. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 211A

Beginning Baseball

Formerly: Kinesiology Activities 211, Baseball Off Season

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Beginning fundamentals of fielding, throwing and hitting. Includes play situations with an emphasis on team offensive and defensive strategy. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 211B
Intermediate Baseball
Formerly: Kinesiology Activities 236,
Advanced Baseball Game Skills

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Activities 211A with a minimum grade of C.

Intermediate fundamentals designed to help prepare the student for baseball competition. Students will learn offensive skills, defensive skills, and communication under competitive game conditions. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 220A

Beginning Basketball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Co-educational team sport activity which provides basic skills and techniques are refined at the beginner level. Rules, game strategies, and competitive activities are included. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 220B

Intermediate Basketball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Activities 220A with a minimum grade of C.

Co-educational team sport activity which provides intermediate instruction in the techniques, tactics and strategies associated with competitive basketball. Special emphasis placed on individual drills and skills such as catching, dribbling, passing, shooting, offensive and defensive strategies are utilized as well as competitive play situations. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 220C

Advanced Basketball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Activities 220B with a minimum grade of C.

Co-educational team sport activity for students with advanced skills. Review of basic fundamental skills and emphasis on advanced development of skills and strategies associated with competitive basketball. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 226A

Beginning Water Polo

Formerly: Kinesiology Activities 226, Water Polo

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Recommended Preparation: Students must be able to swim and be comfortable in deep water.

Instruction and experience in the fundamentals and strategies of water polo. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 260A

Beginning Soccer

Formerly: Kinesiology Activities 260A, Soccer-

Beginning/Intermediate

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This course is designed to introduce/better acquaint students to the game of outdoor soccer. Emphasis is placed on rules, techniques, safety, and improving performance. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 260B

Intermediate Soccer

Formerly: Kinesiology Activities 260B, Soccer-

Intermediate/Advanced

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Recommended Preparation: Kinesiology Activities 260A or High School Soccer experience.

This course is designed to review and solidify techniques and tactics associated with the game of outdoor soccer. Instruction focuses on improving performance in all aspects of the game: defense, midfield, attack, and special situations. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 265A

Beginning Indoor Soccer

Formerly: Kinesiology Activities 265A, Indoor

Soccer-Beginning/Intermediate

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This course is a fast moving, action filled form of soccer played in a smaller indoor area. It is designed to introduce and better acquaint students to the game of soccer. Emphasis is placed on rules and techniques needed to best perform in the sport of soccer.



Kinesiology Activities 265B
Intermediate Indoor Soccer
 Formerly: Kinesiology Activities 265B, Indoor Soccer-Intermediate/Advanced

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Recommended Preparation: Kinesiology Activities 265A or High School Soccer Experience.

This course is a fast-moving, action filled form of soccer played in a smaller indoor area. It is designed to solidify skills and (team) tactics for students wanting to play the game of soccer.

Kinesiology Activities 270A
Beginning Softball
 Formerly: Kinesiology Intercollegiate Athletics 270, Softball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Fundamentals of fielding, throwing, hitting, and base running. Includes play situations and an emphasis on team offensive and defensive strategy. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 290A
Beginning Volleyball
 Formerly: Kinesiology Activities 290, Volleyball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction and practice in fundamental skills techniques, strategies, basic rules, team offense and defense, and team concepts of Volleyball. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

Kinesiology Activities 290B
Intermediate Volleyball
 Formerly: Kinesiology Activities 292, Advanced Volleyball-Women

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Recommended Preparation: Kinesiology Activities 290A with a minimum grade of B.

An intermediate volleyball activities course. Emphasis will be placed on intermediate technical skill development, offensive and defensive systems analysis, and sport specific physical fitness assessment and conditioning activities. A combination of Kinesiology Activities 200A, 200B, 200C, 211A, 211B, 226A, 220A, 220B, 220C, 260A, 260B, 270A, 290A, and 290B may be taken a maximum of four enrollments.

KINESIOLOGY ADAPTED
ACTIVITIES (KNAD)

Kinesiology Adapted Activities 201A

Beginning Adapted Swimming

Formerly: Kinesiology Adapted Activities 201, Adapted Swimming

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Adapted Kinesiology Medical Release Form required.

The class is designed for students with disabilities and chronic conditions to experience the benefits of swimming. Individualized exercise programs are designed to teach students adaptive strategies and beginning level techniques for pool entry/exit, breathing, and swim strokes to meet their individual needs. A combination of Kinesiology Adapted Activities 201A, 211A, 211B, Kinesiology Aquatics 201A, 201B, and 204 may be taken a maximum of four enrollments.

Kinesiology Adapted Activities 202A

Beginning Adapted Circuit Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Adapted Kinesiology Medical Release Form required.

This class is designed for students with disabilities and chronic conditions to experience the benefits of circuit training. Individualized exercise programs are designed to teach students adaptive strategies and beginning level techniques to meet their individual needs. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

Kinesiology Adapted Activities 202B
Intermediate Adapted Circuit Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Adapted Activities 202A with a minimum grade of C and Adapted Kinesiology Medical Release Form required.

The class is designed for students with disabilities and chronic conditions to increase their knowledge and skills competence in circuit training. Individualized exercise programs are designed to teach students adaptive strategies and intermediate level techniques to meet their individual needs. Meets general education requirement. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

Kinesiology Adapted Activities 205A

Beginning Adapted Badminton

Formerly: Kinesiology Adapted Activities 205, Adapted Badminton

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Adapted Kinesiology Medical Release Form required.

This course is designed for students with disabilities and chronic conditions to introduce the fundamentals of badminton play. Striking skills, rallying, teamwork, rules, and court strategy are presented to meet the developmental needs of each student. A combination of Kinesiology Activities 107A, 160A, 169A, and Kinesiology Adapted Activities 205A may be taken a maximum of four enrollments.

Kinesiology Adapted Activities 208A

Beginning Adapted Aerobic Fitness

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Adapted Kinesiology Medical Release Form required.

The class is designed for students with disabilities and chronic conditions to develop knowledge and skills for improving cardiovascular fitness. Various aerobic and stretching exercises are performed to music. Exercise programs are designed to teach students adaptive strategies and beginning level techniques to meet their individual needs. A combination of Kinesiology Adapted Activities 208A, 208B, Kinesiology Aerobic Fitness 140, 157A, Kinesiology Fitness 115A, 115B, and 115C may be taken a maximum of four enrollments.

Kinesiology Adapted Activities 208B
Intermediate Adapted Aerobic Fitness

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Adapted Activities 208A with a minimum grade of C and Adapted Kinesiology Medical Release Form required.

The class is designed for students with disabilities and chronic conditions to increase knowledge and skills competence in activities that improve cardiovascular fitness. Various aerobic and stretching exercises are performed to music. Exercise programs are designed to teach students adaptive strategies and intermediate level techniques to meet their individual needs. Meets general education requirement. A combination of Kinesiology Adapted Activities 208A, 208B, Kinesiology Aerobic Fitness 140, 157A, Kinesiology Fitness 115A, 115B, and 115C may be taken a maximum of four enrollments.



Kinesiology Adapted Activities 211A Beginning Adapted Aquatics

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Adapted Kinesiology Medical Release Form required.

The class is designed for students with disabilities and chronic conditions to experience the benefits of aquatic activities. In a group exercise setting, students are taught adaptive strategies and beginning level techniques for cardiovascular, balance, resistance, and core training. No swimming skills required. Meets general education requirement. A combination of Kinesiology Adapted Activities 201A, 211A, 211B, Kinesiology Aquatics 201A, 201B, and 204 may be taken a maximum of four enrollments.

Kinesiology Adapted Activities 211B Intermediate Adapted Aquatics

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Adapted Activities 211A with a minimum grade of C and Adapted Kinesiology Medical Release Form required.

This class is designed for students with disabilities and chronic conditions to increase their knowledge and skills competence in aquatic activities. In a group exercise setting, students are taught adaptive strategies and intermediate level techniques for cardiovascular, balance, resistance, and core training. No swimming skills required. Meets general education requirement. A combination of Kinesiology Adapted Activities 201A, 211A, 211B, Kinesiology Aquatics 201A, 201B, and 204 may be taken a maximum of four enrollments.

KINESIOLOGY AEROBIC FITNESS (KNAF)

Kinesiology Aerobic Fitness 140 Walking/Jogging for Fitness

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This course will emphasize cardiovascular walking/jogging for health and fitness for men and women who are interested in instruction and practice in cardiovascular conditioning. The walking/jogging class is designed to decrease the risk of coronary heart disorders by increasing heart efficiency, vital lung capacity, and the knowledge of each through aerobic and anaerobic conditioning. A combination of Kinesiology Adapted Activities 208A, 208B, Kinesiology Aerobic Fitness 140, 157A, Kinesiology Fitness 115A, 115B, and 115C may be taken a maximum of four enrollments.

Kinesiology Aerobic Fitness 143A Beginning Extreme Fitness

Formerly: Kinesiology Aerobic Fitness 143, Extreme Fitness

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction in overall fitness development. The program develops overall fitness and challenges students to perform aerobic, anaerobic, strength, plyometric and agility exercises to their individual highest level. It uses a variety of environments (i.e. beach, strength lab, track, field, etc).

Kinesiology Aerobic Fitness 144A Beginning Cross Training

Formerly: Kinesiology Aerobic Fitness 144, Cross Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This class will be comprised of aerobic workouts designed to introduce the student to the concept of cross training and trying different work-outs. The class will be divided into sections including walk/jog, step training, cardio boxing, weight training, and flexibility work-outs. A combination of Kinesiology Aerobic Fitness 144A, Kinesiology Fitness 147A and 147B may be taken a maximum of four enrollments.

Kinesiology Aerobic Fitness 146A Beginning Stability Ball

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A core training and strengthening workout using stability balls and free weights (dumbbells) to build core strength and functional fitness. Designed to tone the entire body with special emphasis on progressively improving posture, balance, flexibility, core strength and coordination.

Kinesiology Aerobic Fitness 146B Intermediate Stability Ball Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Aerobic Fitness 146A with a minimum grade of C

An intermediate core training and strengthening workout using stability balls and free weights (dumbbells) to build core strength and functional fitness. Designed to tone the entire body with special emphasis on progressively improving posture, balance, flexibility, core strength and coordination.

Kinesiology Aerobic Fitness 150A Beginning Stretch, Flex and Tone

Formerly: Kinesiology Aerobic Fitness 150, Stretch, Flex and Tone

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A combination of stretching and toning exercises to increase strength, flexibility, and overall body fitness. A combination of Kinesiology Activities 150A, 170A, and Kinesiology Aerobic Fitness 150A may be taken a maximum of four enrollments.

Kinesiology Aerobic Fitness 156 Beginning Cardio Kickboxing

Formerly: Kinesiology Aerobic Fitness 156, Cardio Kickboxing

Unit(s): 0.5

Class Hours: 32 Laboratory total.

A series of boxing and kickboxing exercises are arranged to music, gradually increasing in tempo with a greater emphasis on a non-stop 25-30 minute program. Kicks, punches, calisthenics, and rope jumping are combined to elevate heart rate and strengthen all major muscle groups. Students will learn to apply these self-defense techniques on kick pads and focus mitts to improve accuracy and provide resistance for the muscles. A combination of Kinesiology Activities 140, 155A, Kinesiology Aerobic Fitness 156, 156A, and 156B may be taken a maximum of four enrollments.

Kinesiology Aerobic Fitness 156A Beginning Cardio Kickboxing

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A series of boxing and kickboxing exercises are arranged to music, gradually increasing in tempo with a greater emphasis on a non-stop 25-30 minute program. Kicks, punches, calisthenics, and rope jumping are combined to elevate heart rate and strengthen all major muscle groups. Students will learn to apply these self-defense techniques on kick pads and focus mitts to improve accuracy and provide resistance for the muscles. A combination of Kinesiology Activities 140, 155A, Kinesiology Aerobic Fitness 156, 156A, and 156B may be taken a maximum of four enrollments.6



Kinesiology Aerobic Fitness 156B Intermediate Cardio Kickboxing

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Aerobic Fitness 156A with a minimum grade of C

A series of boxing and kickboxing exercises are arranged to music, gradually increasing in tempo with a greater emphasis on a non-stop 25-30 minute program. This class is designed to increase competence in kicking and punching, calisthenics and rope jumping in various combinations to improve fitness. Students will further develop intermediate level self-defense techniques on kick pads and focus mitts to improve accuracy and provide resistance for the muscles. A combination of Kinesiology Activities 140, 155A, Kinesiology Aerobic Fitness 156, 156A, and 156B may be taken a maximum of four enrollments.

Kinesiology Aerobic Fitness 157A Beginning Cardio Pump

Formerly: Kinesiology Aerobic Fitness 157, Cardio Pump

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction in overall fitness development. This class is designed to incorporate weight lifting into a cardio routine. It develops strength and endurance of all major muscle groups using routines performed to music. A combination of Kinesiology Adapted Activities 208A, 208B, Kinesiology Aerobic Fitness 140, 157A, Kinesiology Fitness 115A, 115B, and 115C may be taken a maximum of four enrollments.

KINESIOLOGY AQUATICS (KNAQ)

Kinesiology Aquatics 201A

Beginning Swimming

Formerly: Kinesiology Aquatics 201, Swimming

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction and experience in the basic stroke techniques and safety procedures of swimming. A combination of Kinesiology Adapted Activities 201A, 211A, 211B, Kinesiology Aquatics 201A, 201B, and 204 may be taken a maximum of four enrollments.

Kinesiology Aquatics 201B

Intermediate Swimming

Formerly: Kinesiology Aquatics 206, Lap Swimming

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Aquatics 201A with a minimum grade of C.

Individualized swimming program designed to improve swimming techniques and cardiovascular fitness. Emphasis on endurance training. A combination of Kinesiology Adapted Activities 201A, 211A, 211B, Kinesiology Aquatics 201A, 201B, and 204 may be taken a maximum of four enrollments.

Kinesiology Aquatics 204

Lifesaving

Unit(s): 1.5

Class Hours: 16 Lecture, 32 Laboratory total.

Prerequisite: Kinesiology Aquatics 201 with a minimum grade of C or Demonstrated proficiency in Kinesiology Aquatics 201 skills.

Instruction in techniques of aquatic safety and rescue. Review of all swimming and rescue strokes. Basics of carries and breaks related to rescue. Small craft and related safety considerations. Lifesaving certification available upon successful completion. A combination of Kinesiology Adapted Activities 201A, 211A, 211B, Kinesiology Aquatics 201A, 201B, and 204 may be taken a maximum of four enrollments.

KINESIOLOGY FITNESS (KNFI)

Kinesiology Fitness 100

Personal Fitness Evaluation

Unit(s): 0.5

Class Hours: 32 Laboratory total.

Personal evaluation of student's fitness level. Each student completes appointments that evaluate flexibility, strength, blood pressure, body composition, pulmonary function, resting electrocardiogram, and a graded exercise test. Students are also required to record 20 hours of exercise outside of class. Outside hours must be completed and supervised at an exercise science facility at the college where the student is enrolled. Designed for students without heart problems. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

Kinesiology Fitness 101A

Personal Fitness Evaluation I

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Personal evaluation of student's fitness level. Each student completes appointments that evaluate flexibility, strength, blood pressure, body composition, pulmonary function, resting electrocardiogram, and a graded exercise test. Students are also required to record 44 hours of exercise outside of class. Outside hours must be completed and supervised at an exercise science facility at the college where the student is enrolled. Designed for students without heart problems. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

Kinesiology Fitness 101B

Personal Fitness Evaluation II

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Fitness 101A with a minimum grade of C must complete 101A

Intermediate personal evaluation of student's fitness level. Each student completes appointments that evaluate flexibility, strength, blood pressure, body composition, pulmonary function, resting electrocardiogram, graded exercise test, and the BODPOD. Student test and evaluations will be compared to the results recorded in Kinesiology Fitness 101A. Students are also required to record 44 hours of exercise outside of class. Outside hours must be completed and supervised at an exercise science facility at the college where the student is enrolled. Designed for students without heart problems. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.



**Kinesiology Fitness 101C
Personal Fitness Evaluation III**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Fitness 127B with a minimum grade of C and must complete Kinesiology Fitness 101A and Kinesiology Fitness 101B.

Advanced personal evaluation of student's fitness level. Each student completes appointments that evaluate flexibility, strength, blood pressure, body composition, pulmonary function, resting electrocardiogram, graded exercise test, and the BODPOD. Student test and evaluations will be compared to the results recorded in Kinesiology Fitness 101A and Kinesiology Fitness 101B. Students will have a mastery level understanding of the analysis techniques used in the center. Students are also required to record 44 hours of exercise outside of class. Outside hours must be completed and supervised at an exercise science facility at the college where the student is enrolled. Designed for students without heart problems. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

**Kinesiology Fitness 102
Personal Fitness Evaluation**

Unit(s): 2.0

Class Hours: 96 Laboratory total.

Personal evaluation of student's fitness level. Each student completes appointments that evaluate flexibility, strength, blood pressure, body composition, pulmonary function, resting electrocardiogram, and a graded exercise test. Students are also required to record 92 hours of exercise outside of class. Outside hours must be completed and supervised at an exercise science facility at the college where the student is enrolled. Designed for healthy individuals with no heart problems. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

**Kinesiology Fitness 109A
Beginning Circuit Training**

Unit(s): 0.5

Class Hours: 32 Laboratory total.

An introduction to fundamental principles and practices of circuit training, including safety, using cardiovascular and resistance machines, components of exercise. This course provides the basics of a comprehensive exercise program that combines cardiovascular exercises with strength training. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

**Kinesiology Fitness 109B
Intermediate Circuit Training**

Unit(s): 0.5

Class Hours: 32 Laboratory total.

A continuation of exercise principles and practices of circuit training covered in Beginning Circuit Training. This course is designed to help students increase cardiovascular conditioning using a combination of resistive strength exercises and endurance training. Must complete Beginning Circuit Training prior to enrollment. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

**Kinesiology Fitness 109C
Advanced Circuit Training**

Unit(s): 0.5

Class Hours: 32 Laboratory total.

An individualized fitness program developed to promote lifetime fitness. Employs a combination of cardiovascular machines (treadmill, steppers, bicycles, elliptical, rower, etc and resistance machines. This course is designed as a continuation of Intermediate Circuit Training and promotes increased cardiovascular and muscular endurance. Educates students on the principles of nutrition and the body's adaptation to exercise. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

**Kinesiology Fitness 110A
Beginning Circuit Training**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

An introduction to fundamental principles and practices of circuit training, including safety, using cardiovascular and resistance machines, components of exercise. This course provides the basics of a comprehensive exercise program that combines cardiovascular exercises with strength training. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

**Kinesiology Fitness 110B
Intermediate Circuit Training**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A continuation of exercise principles and practices of circuit training covered in Beginning Circuit Training. This course is designed to help students increase cardiovascular conditioning using a combination of resistive strength exercises and endurance training. Must complete Beginning Circuit Training prior to enrollment. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.

**Kinesiology Fitness 110C
Advanced Circuit Training**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

An individualized fitness program developed to promote lifetime fitness. Employs a combination of cardiovascular machines (treadmill, steppers, bicycles, elliptical, rower, etc and resistance machines. This course is designed as a continuation of Intermediate Circuit Training and promotes increased cardiovascular and muscular endurance. Educates students on the principles of nutrition and the body's adaptation to exercise. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 202A, 202B, Kinesiology Fitness 100, 101A, 101B, 101C, 102, 109A, 109B, 109C, 110A, 110B, and 110C may be taken a maximum of four enrollments.



Kinesiology Fitness 112A
Beginning Circuit Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

An introduction to fundamental principles and practices of circuit training, including safety, using cardiovascular and resistance machines, components of exercise. This course provides the basics of a comprehensive exercise program that combines cardiovascular exercises with strength training. Grade: Pass/No Pass only (same as Kinesiology Fitness 110A).

Kinesiology Fitness 112B
Intermediate Circuit Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Fitness 112A with a minimum grade of C/P or Kinesiology Fitness 110A with a minimum grade of P.

A continuation of exercise principles and practices of circuit training covered in Beginning Circuit Training. This course is designed to help students increase cardiovascular conditioning using a combination of resistive strength exercises and endurance training. Must complete Beginning Circuit Training prior to enrollment. Grade: Pass/No Pass only (same as Kinesiology Fitness 110B).

Kinesiology Fitness 112C
Advanced Circuit Training

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Fitness 112B with a minimum grade of C/P or Kinesiology Fitness 110B with a minimum grade of P.

An individualized fitness program developed to promote lifetime fitness. Employs a combination of cardiovascular machines (treadmill, steppers, bicycles, elliptical, rower, etc.) and resistance machines. This course is designed as a continuation of Intermediate Circuit Training and promotes increased cardiovascular and muscular endurance. Educates students on the principles of nutrition and the body's adaptation to exercise. Grade: Pass/No Pass only (same as Kinesiology Fitness 110C).

Kinesiology Fitness 115A
Beginning Cardiovascular Conditioning

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A basic course designed for those people who desire a cardiovascular work-out using a combination of equipment such as stationary bikes, ellipticals, treadmills, rowers, etc. This course will cover elemental information as it regards to aerobic conditioning. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 208A, 208B, Kinesiology Aerobic Fitness 140, 157A, Kinesiology Fitness 115A, 115B, and 115C may be taken a maximum of four enrollments.

Kinesiology Fitness 115B
Intermediate Cardiovascular Conditioning

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A course designed for those people who desire a cardiovascular work-out using a combination of equipment such as stationary bikes, ellipticals, treadmills, rowers, etc. This course is a continuation of Beginning Cardiovascular Conditioning and is designed to help students increase their cardiovascular endurance developed as a beginner. This course will cover topics as they relate to aerobic conditioning. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 208A, 208B, Kinesiology Aerobic Fitness 140, 157A, Kinesiology Fitness 115A, 115B, and 115C may be taken a maximum of four enrollments.

Kinesiology Fitness 115C
Advanced Cardiovascular Conditioning

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A continuation of Intermediate Cardiovascular Conditioning. This course is designed for students to increase their cardiovascular conditioning using a combination of machines (bicycles, treadmills, ellipticals, etc.). Advanced fitness concepts, as they relate to lifelong fitness levels, will be covered. This course provides students with the opportunity to elevate their endurance and cardiovascular levels to the high-end of the aerobic range. Grade: Pass/No Pass only. A combination of Kinesiology Adapted Activities 208A, 208B, Kinesiology Aerobic Fitness 140, 157A, Kinesiology Fitness 115A, 115B, and 115C may be taken a maximum of four enrollments.

Kinesiology Fitness 126A
Beginning Upper Body Power Development

Unit(s): 1.5

Class Hours: 72 Laboratory total.

An exercise program designed for football athletes who participate in intercollegiate athletics. Emphasis will be on the development of the upper body. Targeted muscle groups are the biceps, triceps, pectorals, deltoids, and the trapezius.

Kinesiology Fitness 126B
Intermediate Upper Body Power Development

Unit(s): 1.5

Class Hours: 72 Laboratory total.

An intermediate exercise program designed for added power and explosive movement as a result of resistance and plyometric training. Emphasis will be on the development of the upper body and supporting muscle groups. Sport specific movements and individual fitness goal setting will be introduced.

Kinesiology Fitness 126C
Advanced Upper Body Power Development

Unit(s): 1.5

Class Hours: 72 Laboratory total.

An advanced exercise program designed for added power and explosive movement as a result of resistance and plyometric training to the upper body and supporting muscle groups. Program will be designed for the individual who is advanced in strength training. Ideal for collegiate level athletes, personal trainers, and public safety officials, including law enforcement and fire fighters who are looking to add power through weight training.

Kinesiology Fitness 127A
Beginning Lower Body Power Development

Unit(s): 1.5

Class Hours: 72 Laboratory total.

A beginning exercise program designed for added power and explosive movement as a result of resistance and plyometric training. Emphasis will be on the development of the lower body. Targeted muscle groups are the gluteus, quadriceps, hamstrings, and calf. Primary focus will be on proper safety procedures and techniques.

Kinesiology Fitness 127B
Intermediate Lower Body Power Development

Unit(s): 1.5

Class Hours: 72 Laboratory total.

An intermediate exercise program designed for added power and explosive movement as a result of resistance and plyometric training. Emphasis will be on the development of the lower body and supporting muscle groups. Sport specific movements and individual fitness goal setting will be introduced.

Kinesiology Fitness 127C
Advanced Lower Body Power Development

Unit(s): 1.5

Class Hours: 72 Laboratory total.

An advanced exercise program designed for added power and explosive movement as a result of resistance and plyometric training to the lower body and supporting muscle groups. Program will be designed for the individual who is advanced in strength training. Ideal for collegiate level athletes, personal trainers, and public safety officials, including law enforcement and fire fighters who are looking to add power through weight training.



**Kinesiology Fitness 147A
Beginning Weight Training**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Introductory instruction in basic weight lifting concepts and experiential practice in large muscle area development, utilizing guided and free weights. Development will be in muscle size or tone and strength or endurance. A combination of Kinesiology Aerobic Fitness 144A, Kinesiology Fitness 147A and 147B may be taken a maximum of four enrollments.

**Kinesiology Fitness 147B
Intermediate Weight Training**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Fitness 147A with a minimum grade of C

This course is designed for students to increase their knowledge and skills competence in large muscle area development utilizing free weights. Individualized exercise programs are designed to teach students intermediate level strategies and techniques. Development will be in muscle size or tone and strength or endurance. A combination of Kinesiology Aerobic Fitness 144A, Kinesiology Fitness 147A and 147B may be taken a maximum of four enrollments.

**KINESIOLOGY HEALTH
EDUCATION (KNHE)**

**Kinesiology Health Education 101
Healthful Living**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A comprehensive look at factors that impact people's health, longevity and lifetime wellness. Areas covered will be personal fitness, nutrition, drugs, alcohol and tobacco, AIDS and sexually transmitted diseases, and degenerative diseases including cancer, heart disease, strokes and diabetes.

**Kinesiology Health Education 102
Women's Health Issues**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An investigation into traditional and holistic health topics with a special emphasis on women's issues, considering all aspects and concepts of social and political influences, nutrition and fitness, relationships, sexuality, reproductive issues, and careers. Through analysis of these topics, students apply methods to healthy lifestyle choices.

**Kinesiology Health Education 104
Nutrition and Fitness**

Unit(s): 2.0

Class Hours: 32 Lecture total.

An applied nutrition course to improve the nutrition and health of active individuals. The course will focus on lifestyle, disease prevention, fitness, weight control, and the basic concepts of good nutrition.

**Kinesiology Health Education 105
(C-ID KIN 101=KNHE 105 & 107)**

First Aid and Personal Safety

Unit(s): 1.5

Class Hours: 24 Lecture total.

This course involves the theory and detailed demonstration of first aid care. Student's learn accident prevention, assessing a victim's condition, and immediate care to accident victims. American Heart Association first aid certification upon successful completion. May be repeated for recertification. Completion of Kinesiology Health Education 105 and Kinesiology Health Education 107 equate to C-ID KIN 101.

**Kinesiology Health Education 107
(C-ID KIN 101=KNHE 105 and 107)**

Cardiopulmonary Resuscitation

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course involves the theory and detailed demonstration in artificial respiration and manual artificial circulation (CPR) that is recommended for use in cardiac arrest cases. Instruction in the Automatic External Defibrillator (AED) is included. Successful completion may lead to American Heart Association Heartsaver or Health Care Provider with AED Certificate. May be repeated for recertification. Completion of Kinesiology Health Education 105 and Kinesiology Health Education 107 equate to C-ID KIN 101.

**KINESIOLOGY
INTERCOLLEGIATE ATHLETICS
(KNIA)**

**Kinesiology Intercollegiate Athletics 103
Performance Evaluation for Athletes**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Evaluation of fitness levels for athletes. Each student will complete fitness testing in the areas of flexibility, strength, speed and agility, resting eeg, graded exercise test, and sport specific activities. May be repeated.

**Kinesiology Intercollegiate Athletics 125
Conditioning for Football**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This class is designed to prepare the college football athlete to play offense, defense, and to play on special teams. This class includes resistance training and field work. May be repeated.

**Kinesiology Intercollegiate Athletics 128
Conditioning for Athletes**

Unit(s): 0.5

Class Hours: 31 Laboratory total.

An exercise program designed for athletes who participate in intercollegiate sports. Emphasis will be on the development of speed, endurance, flexibility, and strength. May be repeated.

**Kinesiology Intercollegiate Athletics 128
Conditioning for Athletes**

Formerly: Kinesiology Intercollegiate Athletics 128, Conditioning for Athletes-Women

Unit(s): 1.0

Class Hours: 48 Laboratory total.

An exercise program designed for athletes who participate in intercollegiate sports. Emphasis will be on the development of speed, endurance, flexibility, and strength. May be repeated.

**Kinesiology Intercollegiate Athletics 133
Off Season Swimming**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

An advanced aquatics class designed for students with exceptional swimming talent who have an interest in training for competitive swimming. A review of swim strokes and an implementation of a variety of training techniques geared to building strength, speed, and endurance. May be repeated.

**Kinesiology Intercollegiate Athletics 134
Golf-Playing Lesson - Off Season**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Application of advanced golf techniques as they relate to regulation course play. The class will focus on playing lessons on an actual course. May be repeated.

**Kinesiology Intercollegiate Athletics 171
Wrestling - Off Season**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Fundamentals of wrestling skills and techniques. Analysis of opponents strengths and weakness will also be considered. Student will master rules, regulations, and ethics of the activity. May be repeated.



**Kinesiology Intercollegiate Athletics 201
Baseball-Men**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high-level, competitive program for students with exceptional baseball talent. The program provides competition with conference colleges as well as with other California Community Colleges. May be repeated.

**Kinesiology Intercollegiate Athletics 202
Basketball-Men**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

An advanced competitive program for student athletes with exceptional basketball talent. Students must meet C.O.A. eligibility requirements and pass a health screening prior to intercollegiate competition. May be repeated.

**Kinesiology Intercollegiate Athletics 204
Football-Men**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high-level, competitive program for students with exceptional football talent. The program provides competition with conference colleges as well as with other California community colleges. Students must have a health screening to participate. May be repeated.

**Kinesiology Intercollegiate Athletics 206
Swimming-Men**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high-level, competitive program for students with exceptional swimming talent. To compete on an intercollegiate athletic team, the student must comply with C.O.A. regulations. May be repeated.

**Kinesiology Intercollegiate Athletics 207
Basketball Off Season**

Unit(s): 1.0

Class Hours: 80 Laboratory total.

The program provides competition with conference colleges as well as with other California community colleges. Students must meet C.O.A. eligibility requirements and pass a health screening prior to intercollegiate competition. May be repeated.

**Kinesiology Intercollegiate Athletics 209
Water Polo-Men**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high-level, competitive program for students with exceptional water polo talent. Students must meet C.O.A. eligibility requirements and pass a health screening prior to intercollegiate competition. May be repeated.

**Kinesiology Intercollegiate Athletics 210
Wrestling-Men**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high-level competitive program for students with exceptional wrestling talent. To compete on an intercollegiate athletic team, the student must comply with C.O.A. regulations. May be repeated.

**Kinesiology Intercollegiate Athletics 211
Softball-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high-level, competitive program for student athletes with exceptional softball talent. Student must meet C.O.A. eligibility requirements and pass a health screening prior to intercollegiate competition. May be repeated.

**Kinesiology Intercollegiate Athletics 212
Basketball-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

An advanced competitive program for student athletes with exceptional basketball talent. Students must meet C.O.A. eligibility requirements and pass a health screening prior to intercollegiate competition. May be repeated.

**Kinesiology Intercollegiate Athletics 213
Volleyball-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A competitive program for student-athletes. Emphasis will be placed on advanced technical skill development, offensive and defensive systems analysis, sport specific physical fitness, and intercollegiate and conference competition. Students must meet the California Community College Athletic Association eligibility requirements and pass a health screening prior to intercollegiate competition. May be repeated.

**Kinesiology Intercollegiate Athletics 214
Golf-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high-level competitive program for student athletes with exceptional golf talent. Students must meet C.O.A. eligibility requirements and pass a health screening prior to intercollegiate competition. May be repeated.

**Kinesiology Intercollegiate Athletics 216
Soccer-Men**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A competitive program for student-athletes. A class in which emphasis is placed on advanced technical and tactical skill development, offensive and defensive systems analysis, sport specific physical fitness, and intercollegiate and conference competition. Students must meet California Community College Athletic Association eligibility requirements and pass a health screening prior to competition. May be repeated.

**Kinesiology Intercollegiate Athletics 217
Swimming-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high level, competitive program for women students with exceptional swimming talent. To compete on an intercollegiate athletic team, the student must comply with C.O.A. regulations. May be repeated.

**Kinesiology Intercollegiate Athletics 218
Track-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

The program provides competition with conference colleges as well as with other California community colleges. May be repeated.

**Kinesiology Intercollegiate Athletics 219
Cross Country-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

The program provides competition with conference colleges as well as with other California community colleges. May be repeated.

**Kinesiology Intercollegiate Athletics 220
Soccer-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A competitive program for student-athletes. A class in which emphasis is placed on advanced technical and tactical skill development, offensive and defensive systems analysis, sport specific physical fitness, and intercollegiate and conference competition. Students must meet Commission on Athletic (COA) eligibility requirements and pass a health screening prior to competition. May be repeated.

**Kinesiology Intercollegiate Athletics 221
Water Polo-Women**

Unit(s): 3.0

Class Hours: 162 Laboratory total.

A high level competitive program for women students with exceptional water polo talent. To compete on an intercollegiate athletic team, the student must comply with C.O.A. regulations. May be repeated.



**Kinesiology Intercollegiate Athletics 223
Baseball**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Fundamentals of fielding, throwing and hitting. Includes play situations and an emphasis on team offensive and defensive strategy. May be repeated.

**Kinesiology Intercollegiate Athletics 227
Off Season Water Polo**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Instruction and experience in the fundamentals and strategies of the sport of water polo. May be repeated.

**Kinesiology Intercollegiate Athletics 231
Football Camp**

Unit(s): 1.0

Class Hours: 8 Lecture, 32 Laboratory total.

This is an intensive course designed to prepare student athlete for a season of competition in intercollegiate football. It will include field work, classroom meeting time, and resistance training. Students must have a health screening to participate. May be repeated.

**Kinesiology Intercollegiate Athletics 232
Football**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Basic elements of the game including fundamental skills in stance, footwork, tackling and blocking techniques will be presented. Offensive and defensive formations and strategies will be practiced. May be repeated.

**Kinesiology Intercollegiate Athletics 235
Speed and Agility
Formerly: Kinesiology Activities 235, Speed and Agility**

Unit(s): 0.5

Class Hours: 24 Laboratory total.

This class includes instruction on linear speed, non-linear speed, and jumping ability, using state of the art plyometric training and speed specific training tools. May be repeated.

**Kinesiology Intercollegiate Athletics 235
Speed and Agility**

Formerly: Kinesiology Activities 235, Speed and Agility

Unit(s): 1.0

Class Hours: 48 Laboratory total.

This class includes instruction on linear speed, non-linear speed, and jumping ability, using state of the art plyometric training and speed specific training tools. May be repeated.

**Kinesiology Intercollegiate Athletics 240
Advanced Basketball Skills-Men**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Focus on developing advanced basketball skills and preparing students for competitive basketball. Open to all students of advanced ability, but intended primarily for students participating on one of the intercollegiate teams. May be repeated.

**Kinesiology Intercollegiate Athletics 261
Soccer-Women**

Unit(s): 0.5

Class Hours: 32 Laboratory total.

A high-level, competitive, conditioning and skills program in soccer for women athletes with exceptional athletic talent. May be repeated.

**Kinesiology Intercollegiate Athletics 261
Soccer-Women**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A high-level, competitive conditioning and skills program in soccer for women athletes with exceptional athletic talent. May be repeated.

**Kinesiology Intercollegiate Athletics 262
Soccer-Men**

Unit(s): 0.5

Class Hours: 32 Laboratory total.

A high-level, competitive, conditioning and skills program in soccer for male athletes with exceptional talent. May be repeated.

**Kinesiology Intercollegiate Athletics 262
Soccer-Men**

Formerly: Kinesiology Activities 262, Soccer-Men

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A high-level, competitive, conditioning and skills program in soccer for male athletes with exceptional talent. May be repeated.

**Kinesiology Intercollegiate Athletics 270
Softball**

Unit(s): 0.5

Class Hours: 32 Lecture total.

Fundamentals of fielding, throwing, hitting, and base running. Includes play situations and an emphasis on team offensive and defensive strategy. May be repeated.

**Kinesiology Intercollegiate Athletics 271
Softball - Off Season**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Basic skills and fundamentals of catching, throwing, pitching, hitting and baserunning will be covered. Offensive and defensive techniques and strategies will be practiced. May be repeated.

**Kinesiology Intercollegiate Athletics 281
Track and Field - Off Season**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Students learn the principles involved with team ethics and values by working in positive cooperation with coaches and teammates. Students will learn the value of discipline, work ethic, commitment, and loyalty. Participants will work to improve technique, training, and competitive performance in track and field. May be repeated.

**Kinesiology Intercollegiate Athletics 291
Volleyball - Off Season**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

A high-level, competitive conditioning and skills program in volleyball for students with exceptional talent. May be repeated.

**KINESIOLOGY PROFESSIONAL
(KNPR)**

**Kinesiology Professional 101 (C-ID KIN 100)
Introduction to Kinesiology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course is an introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of sub-disciplines in kinesiology will be discussed along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions.

**Kinesiology Professional 125
Sport Psychology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An academic and practical examination of the psychological aspects of sport, concentrating on the scientifically proven methods of enhancing athletic performance through psychological training.

**Kinesiology Professional 140
Movement Education for Elementary School Children**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

This course is designed to acquaint the elementary school major with physical education programs in grades K-6. The course includes observation, visitation, and actual teaching field work at an elementary school.

**Kinesiology Professional 150
Sport and Society**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Examines the role of sport in modern society. Looks at how sport influences and shapes global attitudes among nations. Investigates the historical, social, economic, and political impact of sport on society.



Kinesiology Professional 155
Theory of Soccer

Unit(s): 2.0

Class Hours: 32 Lecture total.

The rules of the game, tactics, and the psychology of soccer are discussed in this class. The mental aspects of the game are emphasized. May be repeated.

Kinesiology Professional 160
Management of Physical Education and Sport

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course examines all aspects of sports administration, including the management process, organization of interscholastic and intercollegiate sports, human resources, fiscal issues, legal liability, and public relations. The course is intended for students interested in a career in physical education, coaching, fitness, and sports administration.

Kinesiology Professional 165
Theory of Softball

Unit(s): 2.0

Class Hours: 32 Lecture total.

A general overview of rules, regulations, strategies, mental preparation, skill evaluation, and the history of the sport of softball. Includes strategies and winning techniques of the game. May be repeated.

Kinesiology Professional 170
Sport Ethics

Unit(s): 3.0

Class Hours: 48 Lecture total.

A class designed to examine ethics, moral questions, and value judgements related to sport. Its approach allows students to follow and analyze ethical arguments, think through philosophical issues, and apply them to the artistic expression of sport as well as everyday life.

Kinesiology Professional 175
Theory of Football

Unit(s): 2.0

Class Hours: 32 Lecture total.

Tactics and strategies applied to specific game situations incorporating evaluation of opponents' development of game plan, including offense, defense, and the kicking game.

Kinesiology Professional 200
Theory of Baseball

Unit(s): 2.0

Class Hours: 32 Lecture total.

Designed for the competitive baseball player. Topics to include offensive and defensive baseball strategies, bunting, baserunning, mental and physical preparation of becoming a baseball player.

Kinesiology Professional 201
Movement Anatomy

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course is designed as an overview of musculoskeletal anatomy presented within the context of exercise and sport. Emphasis is placed on understanding the composition, structure, and function of skeletal muscle as well as bones and joints. Course includes analysis of various movement patterns.

Kinesiology Professional 203
Physiology of Cardiovascular Exercise

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course is designed for students in the Fitness Specialist Certificate Program as overview of how the body responds to cardiovascular training. Emphasis is placed on understanding cardiorespiratory anatomy and physiology as well as metabolic and hormonal control of exercising muscle. Students examine training sequences, equipment selection, and safety factors, including contra-indications for apparently healthy adults.

Kinesiology Professional 205
Techniques of Exercise Leadership

Unit(s): 1.5

Class Hours: 16 Lecture, 32 Laboratory total.

This course is designed to introduce and practice the principles and techniques involved in teaching group exercise and developing personal trainer/client relationships. Emphasis is placed on client assessment, communication skills, program design, exercise adherence, teaching strategies, and professional responsibility and liability.

Kinesiology Professional 207
Physiology of Resistance Training

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course is designed for students in the Fitness Specialist Certificate program as a thorough review of the proper mechanics and benefits of various types of muscular strength and endurance training. Emphasis is placed on reviewing neuromuscular anatomy and physiology, training sequences, equipment selection, and safety factors, including contra-indications for apparently healthy adults.

Kinesiology Professional 209
Exercise for Special Populations

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course is designed as an overview of exercise programming for clients with special needs. Emphasis is placed on understanding special populations related to age, medical condition, and level of fitness. Topics include cardiovascular conditions, diabetes, physical disabilities, chronic conditions, pregnant and postpartum women, and others.

Kinesiology Professional 211
Practicum in Fitness Evaluation I

Unit(s): 0.5

Class Hours: 32 Laboratory total.

Prerequisite: Concurrent enrollment in Kinesiology Professional 203.

This course is designed to develop proficiency in various fitness assessment techniques. Emphasis is placed on objective assessment using various treadmill tests, field tests for cardiorespiratory endurance, body composition techniques, and blood pressure measures. Students practice selecting the appropriate test, conducting the test, and evaluating results.

Kinesiology Professional 213
Practicum in Fitness Evaluation II

Unit(s): 0.5

Class Hours: 32 Laboratory total.

Prerequisite: Concurrent enrollment in Kinesiology Professional 207.

This course is designed for students to develop proficiency in various fitness assessment techniques. Emphasis is placed on objective assessment using various muscular strength, power, speed and agility, flexibility, and balance and mobility tests. Students practice selecting the appropriate test, conducting the test, and evaluating results.

Kinesiology Professional 215
Fitness Specialist Internship

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Kinesiology Professional 201 or Biology 239 and Kinesiology Professional 203 and Kinesiology Professional 205 and Kinesiology Professional 211 and Kinesiology Health Education 104 or Nutrition 115 or Nutrition 115H with a minimum grade of C; Concurrent enrollment in Kinesiology Professional 101 or successful completion of Kinesiology Professional 101 and Kinesiology Professional 207 or successful completion of Kinesiology Professional 207 and Kinesiology Professional 209 or successful completion of Kinesiology Professional 209 and Kinesiology Professional 213 or successful completion of Kinesiology Professional 213 and Kinesiology Health Education 107 or successful completion of Kinesiology Health Education 107.

This course is designed to provide students in the Fitness Specialist Certificate Program with practical experience in the field of exercise and fitness. Students will be placed in a Fitness Specialist Work Site for a supervised internship.



KINESIOLOGY SPORTS MEDICINE (KNSM)

Kinesiology Sports Medicine 101 Introduction to Sports Medicine

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Concurrent enrollment in Kinesiology Sports Medicine 150.

Introduction to the field of sports medicine. Will provide basic exposure to athletic injuries, taping techniques, and appropriate treatment, prevention, and rehabilitation of athletic injuries.

Kinesiology Sports Medicine 150 Athletic Training Internship

Unit(s): 2.0

Class Hours: 96 Laboratory total.

Prerequisite: Concurrent enrollment in Kinesiology Sports Medicine 101.

A laboratory experience in the application of preventative, acute and post-injury treatment of common athletic injuries. Taping skills and use of therapeutic modalities will be emphasized. Also covered will be the administration and daily functioning of the training room and participating in a hands-on internship under certified athletic trainers. Each student will be required to put in 6 hours per week as an intern in the Athletic Training Room and/or at athletic events. May be repeated.

LIBRARY AND INFORMATION STUDIES (LIBI)

Library and Information Studies 100

Library Research Fundamentals

Unit(s): 1.0

Class Hours: 16 Lecture total.

Designed to provide students with survival skills in libraries. Print and non-print information sources such as reference books, magazines, databases and the Internet will be discussed. Students will participate in hands-on exercises in the library.

Library and Information Studies 103

Advanced Internet Research

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course focuses on library research strategies for effectively locating and evaluating information on the Internet. Core topics are designing and performing successful search strategies, evaluating online information using critical thinking skills, identifying the ethical and legal aspects of using online sources, and citing sources using a standard documentation style.

LIBRARY TECHNOLOGY (LIBR)

Library Technology 053

Library Internship

Unit(s): 3.0

Class Hours: 18 Lecture, 120 Laboratory total.

Prerequisite: Library Technology 101, 110, and 122 with a minimum grade of C.

Closely supervised fieldwork experiences in two carefully selected library settings that will allow the student to apply learned knowledge and skills. Weekly review seminars and discussions are conducted in the classroom and online. To be taken in the last semester of an A.A. Degree or Certificate in Library Technology. Grade: Pass/No Pass only.

Library Technology 054

Children's Library Services

Unit(s): 3.0

Class Hours: 48 Lecture total.

Course explores standard library procedures and practices as they are adapted to a children's library situation. Each student has practice evaluating materials and using various methods for sharing literature with children, e.g. reading aloud, storytimes, displays, and bibliographies.

Library Technology 101

Introduction to Library Technology

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course provides an introduction to libraries as a career field with particular emphasis on the role of the library technician in various types of library settings. It also provides an overview of library collections, history, organization, staffing, services, terminology, and electronic online resources.

Library Technology 102

Information Sources for Paraprofessionals: Tools and Techniques

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to information sources in both print and electronic formats. Includes a basic theoretical and practical exploration of the nature and types of information in selected subject fields. Builds skills in information searching and in the evaluation of information and information sources.

Library Technology 110

Technical Services

Unit(s): 3.0

Class Hours: 48 Lecture total.

Evaluation and acquisition of books and other media for libraries. Basic theories, principles, and concepts of bibliographic control, including descriptive cataloging, classification, subject analysis, and bibliographic maintenance. Emphasis placed on Anglo American Cataloging Rules, MARC, LC and Dewey classification, and LC Subject Headings. Original and copy cataloging using an online bibliographic cataloging system and online bibliographic utility.

Library Technology 122

Public Services

Unit(s): 3.0

Class Hours: 48 Lecture total.

Exploration of library public services with special emphasis placed on a variety of issues as they relate to the circulation of library materials, the delivery of reference services, the use of the Internet and full-text databases for reference, and the preparation and delivery of library programs.

MANAGEMENT (MGMT)

Management 120

Principles of Management

Unit(s): 3.0

Class Hours: 48 Lecture total.

Principles, methods, and procedures essential to the successful management of human and financial resources. Planning, decision making, staffing, directing, motivating, leading, communicating, controlling and the application of managerial skills (same as Business 120).

Management 121

Human Relations and Organizational Behavior

Unit(s): 3.0

Class Hours: 48 Lecture total.

The role of the manager and management's relationship to employees. Includes the application of motivational theories, communications, leadership, and organizational structure (same as Business 121).



Management 122
Business Communications

Unit(s): 3.0

Class Hours: 48 Lecture total.

Overview of oral and written communication skills used in business; emphasizes guidelines for improving writing and speaking skills, common solutions to common communication problems, ethical issues facing business communicators today, instructions on how to identify areas of legal vulnerability, and tested techniques for communicating successfully in today's high-tech, international business environment. Suggested preparation: English 061 or English for Multilingual Students 112 or American College English 116.

Management 125
Organizational Leadership

Unit(s): 3.0

Class Hours: 48 Lecture total.

An examination of the universal principles of leadership. Covers the many approaches to leadership, the role of gender and diversity, and leadership ethics. Designed to build repeatable and transferable leadership skills for today's organizational environment.

Management 135
Human Resource Management

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course covers the goals, activities, and challenges of human resources. Includes equal employment opportunity and diversity, recruitment and selection, leadership and motivation, training and development, compensation and employee and labor/management relations.

MANUFACTURING
TECHNOLOGY (MNFG)

Manufacturing Technology 011
Basic Mechanical Blueprint Reading
(Formerly: Basic Blueprint Reading)

Unit(s): 2.0

Class Hours: 32 Lecture total.

Reading and interpreting blueprints for manufacturing technologies (same as Engineering 011).

Manufacturing Technology 028
Basic Metals Technology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Basic metals terminology and its application in modern industry. Involves metal classification systems, destructive metal testing, metal refining, and heat treatment of various metals with resulting strength and structural changes.

Manufacturing Technology 053
Technical Mathematics

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Mathematics N48 with minimum grade of C.

Ratios and proportions, formulas, measurements (liner, surface, and volume), geometric construction, and right triangles. Basics of algebra, geometry, and trigonometry for the manufacturing industry.

Manufacturing Technology 058
Basic Machining Concepts and Operations

Unit(s): 3.0

Class Hours: 16 Lecture, 112 Laboratory total.

Fundamental operations on lathes, milling machines, grinders, and drill presses, including precision measurements and layout. Equips students with skills and theory necessary to enter or upgrade within the machinist trade. Concurrent enrollment in Manufacturing Technology 011 recommended.

Manufacturing Technology 059
Advanced Turning Concepts and Operations

Unit(s): 3.0

Class Hours: 16 Lecture, 112 Laboratory total.

Prerequisite: Manufacturing Technology 058 with minimum grade of C.

Machine turning theory and skill development with emphasis on lathe principles, capabilities, and operations. Includes construction, tool grinding, and turning machine operations.

Manufacturing Technology 068
Advanced Milling Concepts and Operations

Unit(s): 3.0

Class Hours: 16 Lecture, 112 Laboratory total.

Prerequisite: Manufacturing Technology 058 with minimum grade of C.

Advanced machine tool operation and setup with emphasis on milling machine principles, use, and capabilities, accessories, and operations.

Manufacturing Technology 069

Job Shop Skills

Unit(s): 0.5 - 9.0

Class Hours: 432 Laboratory total.

Prerequisite: Manufacturing Technology 059 and 068 with a minimum grade of C.

Experience in planning, setup, and machining of a wide variety of projects using all machine tools. Students will build upon the skills and theory gained in beginning and advanced Manufacturing Technology classes or by on-the-job experience. Open Entry/Open Exit.

Manufacturing Technology 071
CNC Program Writing

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Prior or concurrent enrollment in Manufacturing Technology 058.

Introductory course for manual CNC program writing. This course will include coordinate system, absolute/incremental programming, circular interpolation, cutter radius compensation, canned cycles, and program formatting. May be repeated.

Manufacturing Technology 073
Mastercam 2D Geometry, 2D Toolpaths

Unit(s): 3.0

Class Hours: 48 Lecture total.

Computer assisted numerical control programming of machine tools using Mastercam software. Creation of 2D-part geometry. 2D-part programming including contouring, pocketing, drilling, and tapping. Suggested preparation: Manufacturing Technology 071.

Manufacturing Technology 074
CNC Milling Center Set Up and Operation

Unit(s): 3.0

Class Hours: 48 Lecture, 32 Laboratory total.

Prerequisite: Manufacturing Technology 058 and 071 with minimum grade of C.

Basic setup and operation of numerically controlled milling machines. Students will set up and run a 3 axis CNC milling machine.

Manufacturing Technology 075
Mastercam 3D Geometry, 3D Surfaces

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Manufacturing Technology 073 with a minimum grade of C.

Continued instruction of computer assisted numerical control programming. Advanced concepts and methods of creating 3D geometry and 3D surfaces using Mastercam 3D software.

Manufacturing Technology 076
CNC Turning Center Set Up and Operation

Unit(s): 3.0

Class Hours: 48 Lecture, 32 Laboratory total.

Prerequisite: Manufacturing Technology 058 and 071 with minimum grade of C.

Setup and operation of numerically controlled lathe with emphasis on the application of the Fanuc 10T machine control and CNC machining methods used in industry.



Manufacturing Technology 077
Mastercam 3D Toolpath and CAM Applications

Unit(s): 3.0

Class Hours: 48 Lecture, 32 Laboratory total.
 Prerequisite: Manufacturing Technology 074 and 075 with a minimum grade of C.

Advanced concepts in the manufacturing of machine parts using MASTERCAM software and CNC machining centers. Emphasis placed on programming and machining 3 dimensional surfaces. Problem solving in roughing, finishing, fixturing, and machining of a variety of part configurations. May be repeated.

Manufacturing Technology 078
Mastercam Lathe

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Manufacturing Technology 071, 073, and 076 with a minimum grade of C.

Computer assisted numerical control programming of machine tools using MASTERCAM lathe software. Emphasis placed on lathe toolpaths: facing, turning, grooving, boring, and threading.

Manufacturing Technology 084
Advanced CNC Mill Set Up and Operation

Unit(s): 3.0

Class Hours: 48 Lecture, 32 Laboratory total.
 Prerequisite: Manufacturing Technology 071 and 074 with a minimum grade of C.

Advanced set up and operation of CNC Machining Center. Student will learn the advanced concepts in set-up and operation of the state-of-the-art milling equipment. Course curriculum will include instruction on boring cycles, reaming cycle, thread milling, 4th AXIS rotary table and multiple fixture offsets.

Manufacturing Technology 086
Advanced CNC Lathe Programming, Setup and Operation

Unit(s): 3.0

Class Hours: 48 Lecture, 32 Laboratory total.
 Prerequisite: Manufacturing Technology 071 and 076 with a minimum grade of C.

Advanced programming, set-up, and operation of CNC lathe. Course curriculum will include instruction on C-Axis with live tooling option, subprogram for C-Axis, tapered I.D. and O.D. thread, canned cycles, uses of digital probe for tool offset, and programmable tailstock.

Manufacturing Technology 094
CNC Horizontal Mill Setup and Operation

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Manufacturing Technology 071, 074, and 084 with a minimum grade of C.

Set-up and operation of CNC Horizontal Machining Center. Students will learn the concepts necessary for set-up and operation of the state-of-the-art horizontal milling machine. Course curriculum will include instruction on multi fixtures, rapid pallet changing, and ability to machine several sides at once with a single set-up using fully programmable 4th axis, to boost productivity, cut lead times and lower production costs. Requires registration in 2 hour scheduled lab session for use of specialized equipment. Lab registration will be done during the first class session each semester.

Manufacturing Technology 095
Mastercam 5 Axis Mill Toolpath and Application

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Manufacturing Technology 075 and 077 with a minimum grade of C.

Students will use Mastercam Software and Blade Expert to create various Multi Axis Toolpaths. Course includes programming, setup and operation of a 5-Axis DMU-50 milling machine with Siemens CNC control to complete various student projects. This course requires registration in a 2 hour per week scheduled lab session. Lab scheduling and registration will be done during the first class session each semester.

Manufacturing Technology 103
Solidworks Basic Solid Modeling

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course in parametric solid modeling. This course will include a solid modeling overview, solid model construction techniques (extrude, revolve, fillet, chamfer, etc), including the preparation of individual solid components and basic solid model assemblies (same as Engineering 103). Suggested preparation: Manufacturing Technology 011.

Manufacturing Technology 104
Solidworks Intermediate Solid Modeling

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Manufacturing Technology 103 with a minimum grade of C.

Intermediate course for solid modeling. Includes a review of the introductory class and changes to the Solidworks interface. Instruction in the use of intermediate Solidworks part modeling skills such as assembly modeling and sub-assemblies is included (same as Engineering 104).

Manufacturing Technology 105
Solidworks Advanced Solid Modeling

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Manufacturing Technology 104 with a minimum grade of C.

Advanced course for solid modeling includes a review of the intermediate class and changes to the Solidworks interface. Instruction in the use of Solidworks part modeling, assembly modeling, sub-assemblies, advanced photoworks and advanced animator emphasized (same as Engineering 105).

Manufacturing Technology 106
Solidworks Drawings

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Manufacturing Technology 103 with a minimum grade of C.

Creation and use of drawing templates, importing of solids data into the drawing template, and modification of the resulting drawings to company standards. Suggested preparation: Manufacturing Technology 011.

Manufacturing Technology 114
Geometric Dimensioning and Tolerancing

Unit(s): 3.0

Class Hours: 48 Lecture total.

Drawing interpretation utilizing geometric dimensioning and tolerancing (ANSI Y14.5) as applied in engineering, manufacturing, and inspection. Suggested preparation: Prior or concurrent enrollment in Manufacturing Technology 011 or Engineering 122 (same as Engineering 114). Recommended prerequisite: Manufacturing Technology 011.

Manufacturing Technology 130A
CATIA Solid Modeling I

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introductory course in parametric solid modeling CAD using CATIA software. Topics include: CAD overview, sketching, basic solid model creation (base features, pads, pockets, grooves, shafts etc.), sketch constraints, reference elements, hole features, feature editing, assembly, and drawing creation (same as Engineering 130A).

Manufacturing Technology 130B
CATIA Solid Modeling II

Unit(s): 3.0

Class Hours: 48 Lecture total.

Intermediate course in parametric solid modeling CAD using CATIA software. Topics: intermediate/advanced level sketching, and modeling (sweeps, ribs, slots), feature transformation, assemblies, drafting workbench, surface modeling, and other CATIA modules. Suggested preparation: Manufacturing Technology 130A (same as Engineering 130B).

**Manufacturing Technology 188****Machine Technology Survey**

Unit(s): 3.0

Class Hours: 16 Lecture, 112 Laboratory total.

Prerequisite: Successful completion of or concurrent enrollment in any one of the following: Manufacturing Technology 011; Engineering 011, 051, 122, 124, 125.

Machine tool setup and operation for students who desire general knowledge of machine tools and processes. All the basic machine tools are used. Not intended for Manufacturing Technology majors (same as Engineering 188).

MARKETING (MKTG)**Marketing 111****Principles of Retailing**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Overview of the retail industry. Structure, scope, and evolution of retail institutions; retail decision making is emphasized in relation to the following topics: organization and store management; merchandise assortment, pricing, and layout; identifying markets; and advertising, promotion, and sales.

Marketing 113**Principles of Marketing**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The process of developing products that will satisfy the many needs of consumers and businesses. Includes market research techniques, pricing, distribution, and promotion.

Marketing 120**Understanding Consumer Behavior - Getting Them to Buy, Buy, Buy**

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course will explore the science, mechanics, dynamics and culture of consumers and their behavior. Understanding your consumer leads to long term relationships; which translates to sales and profits for your business. Students will learn how to analyze consumer behavior using the latest tools, techniques, and technology.

Marketing 121**Negotiating - Getting to a Win-Win**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn the techniques of successfully negotiating a Win-Win business transaction. By learning the different negotiating styles, students will gain skills working with customers in all business segments.

Marketing 122**Sales Strategies That Build Business Relationships and Increase Sales**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Learn how professional sales people build relationships with customers and clients that lead to increased sales. Learn how to effectively communicate, persuade, overcome objections, and close the deal.

Marketing 123**Marketing and Technology - Trends and Cutting Edges**

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course will cover the latest trends in mixed marketing technologies. Learn to use the latest technologies to drive awareness, create demand, and close sales.

Discover the latest trends, strategies, and tools for using technology for marketing what they are, how they work, and how to get started.

Marketing 124**Cause Marketing and Public Relations - Doing Well by Doing Good**

Unit(s): 1.0

Class Hours: 16 Lecture total.

This course will cover how companies can be successful by doing good, helping society and people. Learn about not-for-profit businesses and socially responsible for-profit businesses. Learn how authentic corporate giving, cause marketing, and the power of public relations can help drive the triple bottom line profits, people and planet.

Marketing 125**Advertising and Promotion - Get the Word Out and Keep Your Customers Buying**

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course will provide students with an in-depth look into cutting edge advertising and promotion strategies used by small, medium, and large companies. Students will learn how to create an advertising campaign, including the planning, costs, and creative design process. Students will learn how promotions are used to increase sales, to build brand loyalty and to build relationship with customers.

Marketing 126**Distributing Product and Services - Reaching Customers Where They Shop**

Unit(s): 2.0

Class Hours: 32 Lecture total.

This course will teach the latest and most cost effective strategies to reach your customer. Students will learn how an efficient B2B and/or B2C distribution system utilizing marketing intermediaries, direct sales, online distribution, and global markets can increase profits. Supply Chain strategies, channel evaluation, and relationships will be highlighted.

Marketing 127**Introduction to E-Commerce**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Electronic commerce from a managerial perspective focusing on the retailing, business-to-business, and service industries. Topics include: E-commerce infrastructure, intranets and extranets, electronic payment systems, marketing research, advertising, E-commerce strategies, and privacy issues (same as Business 127 and Computer Science 127).

MATHEMATICS (MATH)**Mathematics N05A****Basic Mathematics-A**

Unit(s): 1.0

Class Hours: 22 Lecture total.

Reviews whole numbers and fractions using lectures, self-paced computer assisted instruction, and manipulative activities. Not applicable to associate degree.

Grade: Pass/No Pass only. Open Entry/Open Exit.

Mathematics N05B**Basic Mathematics-B**

Unit(s): 1.0

Class Hours: 21 Lecture total.

Prerequisite: Mathematics N05A with minimum grade of P.

Reviews decimals and percents using lectures, self-paced computer assisted instruction, and manipulative activities. Not applicable to associate degree.

Grade: Pass/No Pass only. Open Entry/Open Exit.

Mathematics N05C**Basic Mathematics-C**

Unit(s): 1.0

Class Hours: 21 Lecture total.

Prerequisite: Mathematics N05A and N05B with minimum grade of P.

Reviews geometric formulas and signed numbers using lectures, self-paced computer assisted instruction, and manipulative activities. Not applicable to associate degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Mathematics N06**Essential Mathematics**

Unit(s): 3.0

Class Hours: 64 Lecture total.

Prerequisite: Must obtain a score of 11 or higher on the Level 1 Math Placement Test.

Reviews whole numbers, fractions, decimals, percents, geometric formulas and signed numbers. Not applicable to associate degree.

Mathematics 030**Coping With Math Anxiety**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Covers the concept of math anxiety – what causes it and how to overcome it. Includes review and practice of basic math skills.



Mathematics N47A

Pre-Algebra/Algebra Essentials A

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Mathematics N05 (N05A, N05B, and N05C) or N06 with minimum grade of C or equivalent skills as measured by the Math Level 1 Exam and a course equivalent to Mathematics N05 or N06.

For students who have little or no previous algebra experience. This course offers an introduction to basic algebra concepts, math vocabulary, and algebraic operations using lectures, self-paced computer assisted instruction, and manipulative activities. This course is intended to be a bridge from basic arithmetic to elementary algebra. Not applicable to the associate degree. Open Entry/Open Exit.

Mathematics N47B

Pre-Algebra/Algebra Essentials B

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Mathematics N47A with a minimum grade of C or concurrent enrollment

For students who have little or no previous algebra experience. This course offers an introduction to basic algebra concepts, math vocabulary, and algebraic operations using lectures, self-paced computer assisted instruction, and manipulative activities. This course is intended to be a bridge from basic arithmetic to elementary algebra. Not applicable to the associate degree. Open Entry/Open Exit.

Mathematics N48

Pre-Algebra/Algebra Basics

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics N05C with a minimum grade of P or Mathematics N06 with a minimum grade of C or placement into Mathematics N48 on the Math Level 1 Exam and a course equivalent to Mathematics N05 or N06.

For students who have little or no previous algebra experience. This course offers an introduction to basic algebra concepts, math vocabulary, and algebraic operations. This course is intended to be a bridge from basic arithmetic to elementary algebra. Not applicable to associate degree.

Mathematics 060

Elementary Algebra

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics N48 with minimum grade of C; or placement into Mathematics 060 on the Mathematics Level 1 or 2 Placement Exam and a course equivalent to Mathematics N48 or N47 (all four units).

A first course in algebra which includes solutions and applications of first and second degree equations, geometric concepts, graphs, inequalities, exponents, polynomials, and algebraic fractions.

Mathematics 070

Geometry

Unit(s): 3.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 060 with a minimum grade of C or placement into Mathematics 070 on the Mathematics Level 2 Placement Exam and a course equivalent to Mathematics 060.

Basic Euclidean geometry. Includes concepts of lines, planes, triangles, congruence, proofs, inequalities, parallel lines, similarity, areas, and volumes.

Mathematics 080

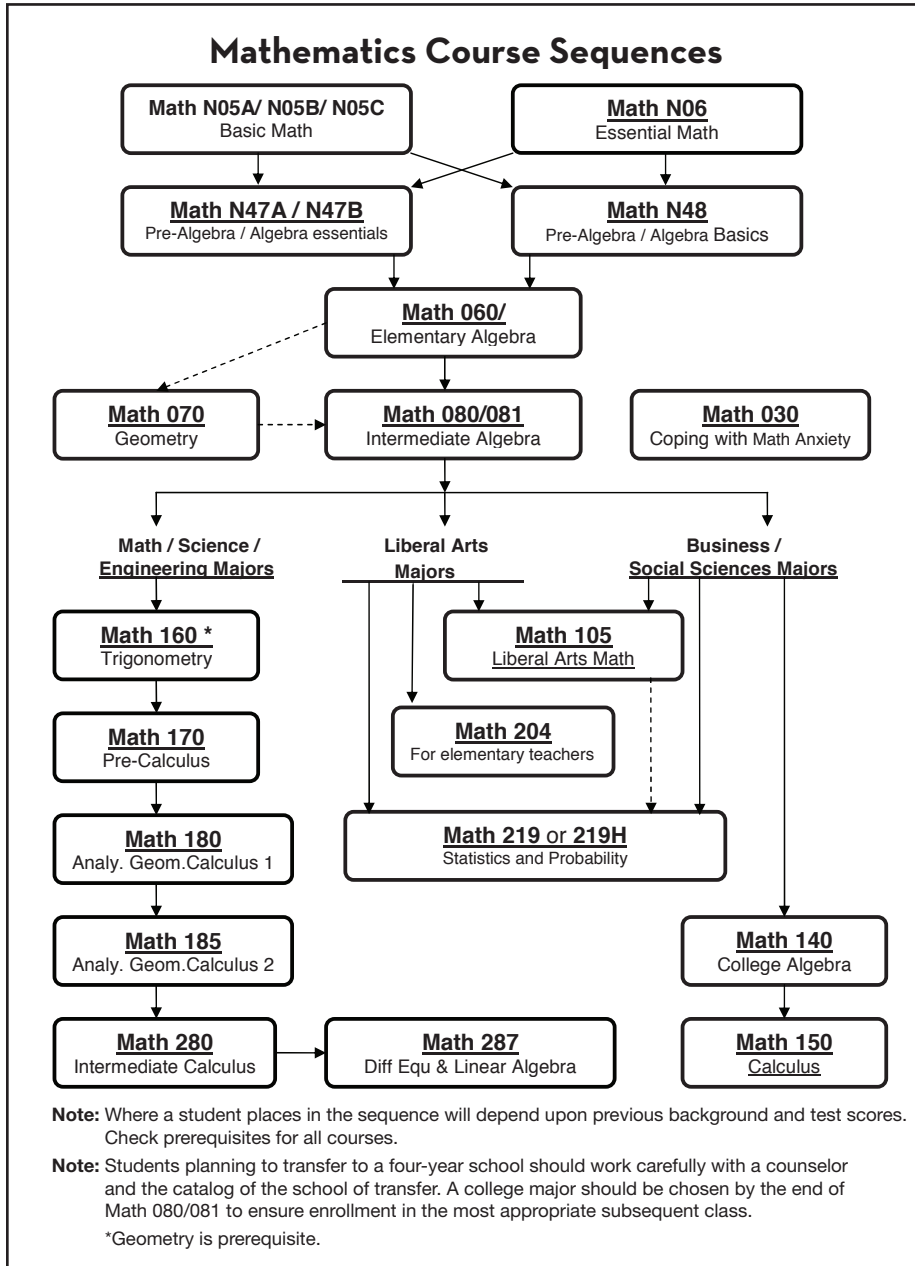
Intermediate Algebra

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 060 with minimum grade of C; or placement into Mathematics 080 on the Mathematics Level 2 Placement Exam and a course equivalent to Mathematics 060.

Systems of equations: inequalities, graphs and functions; radicals, quadratic polynomials, rational expressions; exponential and logarithmic functions, problem solving.



**Mathematics 081****Intermediate Algebra With Lab**

Unit(s): 4.0

Class Hours: 80 Lecture, 16 Laboratory total.

Prerequisite: Mathematics 060 with minimum grade of C; or placement into Mathematics 080 or 081 on the Mathematics Level 2 Placement Exam and a course equivalent to Mathematics 060.

A second course in algebra that includes systems of equations: inequalities, graphs and functions; radicals, quadratic polynomials, rational expressions; exponential and logarithmic functions, problem solving. All Mathematics 081 classes include a laboratory requirement requiring weekly attendance in the Math Center.

Mathematics 083**Beginning and Intermediate Algebra for Liberal Arts and Social Science**

Unit(s): 6.0

Class Hours: 96 Lecture total.

Prerequisite: Mathematics N48 with a minimum grade of C; or a sufficient score on the Mathematics Level 2 Placement Exam and a course equivalent to Mathematics N48 or 060.

A combined course in algebra that includes systems of equations, inequalities, graphs and functions, radicals, quadratic polynomials, rational expressions, exponential and logarithmic functions, and problem solving aimed specifically at liberal arts and social science majors.

Mathematics 084**Beginning and Intermediate Algebra**

Unit(s): 6.0

Class Hours: 96 Lecture total.

Prerequisite: Mathematics N48 with a minimum grade of C; or a sufficient score on the Mathematics Level 2 Placement Exam and a course equivalent to Mathematics N48 or 060.

A combined course in algebra that includes systems of equations: inequalities, graphs and functions; radicals, quadratic polynomials, rational expressions; exponential and logarithmic functions, and problem solving.

Mathematics 087**Math for Engineers, I**

Formerly: **Mathematics 078, Math for Engineers, I**

Unit(s): 7.0

Class Hours: 144 Lecture total.

Prerequisite: Mathematics 060 with a minimum grade of C; or placement into Mathematics 080 or 081 on the Mathematics Level 2 Placement Exam and a course equivalent to Mathematics 060.

Basic Euclidean geometry combined with a second course in algebra. Topics from Basic Euclidean Geometry include: concepts of lines, planes, triangles, congruence, proofs, inequalities, parallel lines, similarity, areas, and volumes. Topics from Algebra include: systems of equations, inequalities, graphs and functions, radicals, quadratic polynomials, rational expressions, exponential and logarithmic functions, and problem solving.

Mathematics 105**Mathematics for Liberal Arts Students**

Unit(s): 3.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 080 or 081 with minimum grade of C or equivalent skills as measured by the Math Level 3 Exam and a course equivalent to Mathematics 080 or 081.

An overview of mathematics for the liberal arts student. Topics will include problem solving, financial management, probability, statistics, and selected other topics such as set theory, geometry, logic, mathematical modeling, and the history of mathematics.

Mathematics 140**College Algebra**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 080 or 081 with minimum grade of C or equivalent skills as measured by the Math Level 3 Exam and a course equivalent to Mathematics 080 or 081.

Survey of advanced topics in algebra: equations, inequalities and functions involving polynomials, rationals, exponentials, and logarithms with applications and graphing; sequences and series.

Mathematics 145**Finite Mathematics**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 080 or 081 with minimum grade of C; or placement into Mathematics 145 on the Mathematics Level 3 Placement Exam and a course equivalent to Mathematics 080 or 081.

Linear systems and matrix algebra, linear programming and the simplex method, mathematics of finance, algebra of sets, introduction to probability and counting, the binomial distribution, descriptive statistics, introduction to the normal curve. Application to the fields of business, economics, and biological and behavioral sciences are emphasized.

Mathematics 150**Calculus for Biological, Management and Social Sciences**

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 140 or Mathematics 145 with minimum grade of C; placement into Mathematics 150 on the Mathematics Level 3 Placement Exam and a course equivalent to Mathematics 140.

Single and multi-variable calculus including limits, derivatives, integrals, exponentials and logarithmic functions and partial derivatives. Applications are drawn from biology, social science and business.

Mathematics 160**Trigonometry**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Both Mathematics 070 and 080 or 081 with minimum grade of C; or placement in Mathematics 160 with the Mathematics Level 3 Exam and courses equivalent to Mathematics 070 and 080 or 081.

Angles and their measurement, trigonometry functions and their applications, including vector problems. Use of trigonometric identities. Graphing the basic functions and variations, solving trigonometric equations. Graphing using polar coordinates, and use of complex numbers.

Mathematics 165**Introduction to Math Tutoring**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Role and responsibility of the math tutor. Includes training in individualized and small group instruction, communication skills, cultural awareness, learning styles, problem solving techniques, new technologies, and an overview of the math curriculum. (Students will be required to spend 16 hours in a designated tutoring center as part of the arranged hours.)

**Mathematics 167****Math for Engineers, II**

Unit(s): 8.0

Class Hours: 144 Lecture total.

Prerequisite: Mathematics 087 with a minimum grade of C; or with instructor approval, placement in Mathematics 160 with the Level 3 Exam and courses equivalent to Mathematics 070 and 080 or 081.

Trigonometry combined with Pre-Calculus. Topics from Trigonometry include: angles and their measurement, trigonometric functions and their applications, vectors, the use of trigonometric identities, graphing the basic functions and variations using rectangular and polar coordinates, solving trigonometric equations, and complex numbers. Topics from Pre-Calculus include: advanced algebraic topics, the study of rational, trigonometric, exponential and logarithmic functions, analytic geometry, and preparation for Calculus (Mathematics 180).

Mathematics 170**Pre-Calculus Mathematics**

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 160 with minimum grade of C or equivalent skills as measured by the Math Level 4 Exam and a course equivalent to Mathematics 160.

Advanced algebraic topics. Study of rational, trigonometric, exponential and logarithmic functions, and analytic geometry. Preparation for Mathematics 180.

Mathematics 180**Analytic Geometry and Calculus I
Formerly: Mathematics 180, Analytic
Geometry and Calculus**

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 170 or Mathematics 167 with a minimum grade of C; OR equivalent skills as measured by the Math Level 4 Exam and a course equivalent to Mathematics 170.

Limits and continuity, derivatives and integrals of algebraic, trigonometric, and other transcendental functions. Applications including extrema tests, related rates, and areas.

Mathematics 180H**Honors Analytic Geometry and Calculus**

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above and Mathematics 170 (Precalculus) with minimum grade of C or equivalent skills as measured by the Mathematics Level 4 Exam and a course equivalent to Mathematics 170.

An in-depth study of limits and continuity, derivatives and integrals of algebraic, trigonometric, and other transcendental function with the emphasis on theory and challenging problems. Applications include extrema tests, related rates and areas, volumes, arc length, and surface areas.

Mathematics 185**Analytic Geometry and Calculus II
Formerly: Mathematics 185, Analytic
Geometry and Calculus**

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 180/180H with a minimum grade of C.

Applications of integrals, including volumes, work, arc length, and surface area. Integration techniques, differential equations, conics, parametric equations, polar coordinates, improper integrals, sequences, and infinite series.

Mathematics 204**Mathematical Concepts for Elementary
School Teachers**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 080/081 with minimum grade of C.

Designed for prospective elementary teachers, the course emphasizes problem solving techniques and mathematical structure associated with numeration, set theory, elementary number theory, real number system, ratio, proportion, and percent. The course includes instructional delivery design and activity-based explorations.

Mathematics 219 (C-ID SOCI 125)**Statistics and Probability**

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 080 or Mathematics 081 with a minimum grade of C; or placement into Mathematics 219 on the Mathematics Level 3 Placement Exam and a course equivalent to Mathematics 080 or 081.

Beginning course in statistics. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics. Includes use of technology (same as Social Science 219).

Mathematics 219H (C-ID SOCI 125)**Honors Statistics and Probability**

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 080 or Mathematics 081 with a minimum grade of C; or placement into Mathematics 219 on the Mathematics Level 3 Placement Exam and a course equivalent to Mathematics 080 or 081; and a high school or college GPA of 3.0 or higher.

Enhanced format for the beginning course in statistics and probability, using a seminar approach, computers, individual research, and presentations. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics with applications designed around the individual interests of students (same as Social Science 219H).

Mathematics 280**Intermediate Calculus**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 185, second semester calculus, with minimum grade of C.

Vectors and three-dimensional space, functions of several variables, partial derivatives and multiple integrals. Vector calculus, Green's Theorem, Stoke's Theorem, and the Divergence Theorem.

Mathematics 287**Introduction to Linear Algebra and
Differential Equations**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 280 with minimum grade of C.

Topics include matrices, determinants, vector spaces, linear systems of equations, linear product spaces, first and second order differential equations, systems of differential equations, and the Laplace transform.

MEDICAL ASSISTANT (MA)**Medical Assistant 001****Cooperative Work Experience Education -
Occupational**

Unit(s): 1.0 - 16.0

Class Hours: 60-1200 Lecture total.

Prerequisite: Medical Assistant 051A and Medical Assistant 055 with a minimum grade of C.

Supervised paid or volunteer experience in student's major, including new or expanded responsibilities. Units are earned based on the number of hours worked per semester: 60 hours of non-paid work hours = 1 unit; 75 hours of paid work hours = 1 unit. Maximum units per semester is 6. May be repeated. Grade: Pass/No Pass only. Grade: Pass/No Pass only.

**Medical Assistant 020****Bloodborne and Airborne Pathogen Standards**

Unit(s): 0.5

Class Hours: 8 Lecture total.

Presentation of California Occupational Safety and Health Act (Cal-OSHA) Bloodborne and Airborne Pathogen Standards for occupational at-risk exposure to hepatitis, HIV-AIDS, and tuberculosis, including compliance requirements, exposure control measures, exposure determination, protective equipment, and post exposure practices.

Medical Assistant 051A**Beginning Medical Terminology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to medical terms, including structural analysis of prefixes, combining form/roots, and suffixes. Emphasis on terms related to anatomy, physiology, diagnostic tests and pathology of the digestive, renal-urinary, and reproductive systems. Also, terms related to pregnancy and the newborn.

Medical Assistant 051B**Advanced Medical Terminology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Medical Assistant 051A with minimum grade of C.

Continuation of Medical Assistant 051A. Includes medical terms related to anatomy, physiology, diagnostic tests, and pathology of the nervous, cardiovascular, respiratory, circulatory, musculoskeletal, skin, sensory, and the endocrine systems.

Medical Assistant 053**Medical Assistant - Administrative Front Office**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Medical front office training including the role, responsibilities, professionalism, medical ethics and laws, medical records, filing, billing and collection, banking, bookkeeping, reception, telephone techniques, oral and written communication, resume, and job seeking skills. Also includes a unit on office first aid and life threatening illnesses.

Medical Assistant 054**Medical Insurance and Billing Forms**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Medical Assistant 051A with a minimum grade of C.

Instruction in the rules, regulations, and completion of medical insurance forms for Medicare, Medi-Cal, Tricare, MediMedi, State Disability, Worker's Compensation, and private commercial insurance carriers. Includes legal and ethical guidelines and instruction in procedure coding using current procedural terminology and ICD-9-CM.

Medical Assistant 055**Medical Assistant - Clinical Back Office**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Medical back office with emphasis on asepsis, sterilization, gloving and ungloving, assisting physician with exams and minor office surgical procedures, vital signs, wound care, dressings, bandaging, specimen collections, medications, and injection techniques.

Medical Assistant 056**Computer Applications for the Medical Office**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to the computer with practical applications for a medical office/clinical setting, including building patient databases, patient scheduling, procedure codes, and diagnostic codes. Generate computerized billing records, posting to accounts, insurance claims forms, and generating reports and electronic data interchange.

MUSIC (MUS)**Music 009A****Music Laboratory**

Unit(s): 0.3

Class Hours: 16 Laboratory total.

Prerequisite: Concurrent enrollment in a music course.

Supervised work on instrumental, vocal, music theory, or digital music assignments and projects. Beginning level assignments are geared toward attainment of skills relating to the corequisite music class. Accumulation of 16 hours earns 0.3 unit. Grade: Pass/No Pass only. Open Entry/Open Exit.

Music 009B**Music Laboratory II**

Unit(s): 0.3

Class Hours: 16 Laboratory total.

Supervised work on instrumental, vocal, music theory, or digital music assignments and projects. More advanced beginning level assignments are geared toward attainment of skills relating to the corequisite music class. Accumulation of 16 hours earns 0.3 unit. Grade: Pass/No Pass only. Open Entry/Open Exit.

Music 009C**Music Laboratory III**

Unit(s): 0.3

Class Hours: 16 Laboratory total.

Prerequisite: Music 009B with minimum grade of C and concurrent enrollment in a music class.

Supervised work on instrumental, vocal, music theory, or digital music assignments and projects. Intermediate level assignments are geared toward attainment of skills relating to the corequisite music class. Accumulation of 16 hours earns 0.3 unit. Grade: Pass/No Pass only. Open Entry/Open Exit.

Music 009D**Music Laboratory IV**

Unit(s): 0.3

Class Hours: 16 Laboratory total.

Prerequisite: Music 009C with minimum grade of C and concurrent enrollment in a music class.

Supervised work on instrumental, vocal, music theory, or digital music assignments and projects. Advanced level assignments are geared toward attainment of skills relating to the corequisite music class. Accumulation of 16 hours earns 0.3 unit. Grade: Pass/No Pass only. Open Entry/Open Exit.

Music 101 (C-ID MUS 100)**Music Appreciation**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Designed to increase awareness and appreciation of music from the European classical tradition in relation to general culture and history. Develops basic understanding of musical elements and deepens student's experience of music. Recommended for non-music majors.

Music 101H (C-ID MUS 100)**Honors Music Appreciation**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An enriched approach designed for honors students. The European classical music tradition through study of musical elements, stylistic features, culture, and history. Readings, guided listening assignments, required concert attendance, and special projects. Recommended for non-music majors.

Music 102**World Music**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Music from the Far East, Southeast Asia, Africa, the Middle East, Europe, and the Americas. Students are guided to enjoy and to understand music from diverse cultures. Investigation of the interconnections of culture, aesthetics, and musical styles. Concert attendance and assigned listening required.

Music 102H**Honors World Music**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: High School or college GPA of 3.0 or above.

An enriched, in-depth study of music from Asia, Africa, the Middle East, Europe, and the Americas. Seminar-style critical investigation of the interconnections of style, culture, and aesthetics to promote enjoyment and understanding of world music.

**Music 103****Jazz in America**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A historical survey of the development and evolution of jazz in America from its earliest roots in African and European music. The study will also include the social and economic conditions which influenced this art form.

Music 104**Rock Music History and Appreciation**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Historical survey of rock music from its beginnings in the 50's to the present. Major rock and pop styles will be discussed. Personalities and musical styles will be related to the social, political, and cultural context of the time.

Music 109**Reading and Making Music**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Introduction to music reading. Practical experience in learning how to perform melodies, rhythms, and simple chords from a written score. Recommended for beginning instrumental and voice students, and those preparing for music theory.

Music 110**Fundamentals of Music**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Music is explored through lecture, written exercises, melodic and rhythmic performance, and composition. Stresses practical skills necessary for performance. Prepares students for the study of harmony and arranging by examining scales, intervals, and chords. Ability to read music in at least one clef is advised.

Music 111 (C-ID MUS 120)(C-ID MUS 125)**Basic Music Theory and Musicianship I**

Unit(s): 4.0

Class Hours: 64 Lecture, 16 Laboratory total.

Introductory level course in music theory and its applications in traditional and modern musical practice. Includes detailed study of rhythm, notation, scales, intervals, chords, diatonic harmony, and voice leading as well as sight singing and other musicianship skills. Ability to read music in at least one clef recommended. Required of music majors; open to non-majors.

Music 112 (C-ID MUS 130)(C-ID MUS 135)**Music Theory and Musicianship II (Formerly: Theory 2)**

Unit(s): 4.0

Class Hours: 64 Lecture, 16 Laboratory total. Prerequisite: Music 111 with a minimum grade of C.

Continued study of harmony and ear training. Includes writing phrases and cadences, non-harmonic tones, harmonization, voice leading, melodic construction, figured bass, chord progression, and keyboard harmony. Required for music majors; open to non-majors.

Music 113A**Basic Musicianship Skills**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Ear training and in-class sightsinging preparation for students not ready for Music 114A. Arranged hours in Music Lab for computer programs and ear training CD's. Basic knowledge of scales and intervals recommended. A combination of Music 113A, 113B, 114A, and 114B may be taken a maximum of four enrollments.

Music 113B**Musicianship Skills**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total. Prerequisite: Music 113A with minimum grade of C.

Continued ear training and in-class sightsinging preparation for students not ready for Music 114A. Arranged hours in Music Lab for computer programs and ear training CD's. Basic knowledge of scales and intervals recommended. Grade: Pass/No Pass only. A combination of Music 113A, 113B, 114A, and 114B may be taken a maximum of four enrollments.

Music 114A (C-ID MUS 145)**Musicianship**

Unit(s): 1.0

Class Hours: 16 Lecture, 32 Laboratory total. Prerequisite: Music 112 with minimum grade of C.

Competency-based sightsinging, rhythm, ear training, and dictation (melodic/harmonic) for performers and transferring music majors. Arranged hours in Music Lab for computer programs and aural exercises. A combination of Music 113A, 113B, 114A, and 114B may be taken a maximum of four enrollments.

Music 114B (C-ID MUS 155)**Musicianship**

Unit(s): 1.0

Class Hours: 16 Lecture, 32 Laboratory total.

Prerequisite: Music 114A with minimum grade of C.

Competency-based sightsinging, rhythm, ear training, and dictation (melodic/harmonic) for performers and transferring music majors. Arranged hours in Music Lab for computer programs and aural exercises. B semester uses more advanced materials. A combination of Music 113A, 113B, 114A, and 114B may be taken a maximum of four enrollments.

Music 115A (C-ID MUS 160)**Applied Music (Private Instruction)**

Unit(s): 1.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Audition and concurrent enrollment in either a music ensemble or music theory course.

Weekly lesson in voice, piano, band/orchestral instrument, or classical guitar. Five hours on-campus practice per week and attendance at weekly recital required. B, C, and D semesters require study of more advanced repertoire. No more than a total of 4 semesters of credit may be earned in a combination of Music 115ABCD and 215. Requires audition and concurrent enrollment in either a music ensemble or music theory course. Open Entry/Open Exit. A combination of Music 115A, 115B, 115C, and 215A may be taken a maximum of four enrollments.

Music 115B (C-ID MUS 160)**Applied Music (Private Instruction)**

Unit(s): 1.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Audition and concurrent enrollment in either a music ensemble or music theory course.

Weekly lesson in voice, piano, band/orchestra instrument, or classical guitar, covering more advanced repertoire than Music 115A. Five hours on-campus practice per week and attendance at weekly recital required. No more than a total of 4 semesters of credit may be earned in a combination of Music 115ABCD and 215. Requires audition and concurrent enrollment in either a music ensemble or music theory course. Open Entry/Open Exit. A combination of Music 115A, 115B, 115C, and 215A may be taken a maximum of four enrollments.



Music 115C (C-ID MUS 160)
Applied Music (Private Instruction)

Unit(s): 1.0

Class Hours: 16 Lecture, 96 Laboratory total.
 Prerequisite: Audition and concurrent enrollment in either a music ensemble or music theory course.

Weekly lesson in voice, piano, band/orchestral instrument, or classical guitar, covering more advanced repertoire than Music 115B. Five hours on-campus practice per week and attendance at weekly recital required. No more than a total of 4 semesters of credit may be earned in a combination of Music 115ABCD and 215. Requires audition and concurrent enrollment in either a music ensemble or music theory course. Open Entry/Open Exit. A combination of Music 115A, 115B, 115C, and 215A may be taken a maximum of four enrollments.

Music 115D (C-ID MUS 160)

Applied Music (Private Instruction)

Unit(s): 1.0

Class Hours: 16 Lecture, 96 Laboratory total.
 Prerequisite: Audition and concurrent enrollment in either a music ensemble or music theory course.

Weekly lesson in voice, piano, band/orchestral instrument, or classical guitar, covering more advanced repertoire than Music 115C. Five hours on-campus practice per week and attendance at weekly recital required. No more than a total of 4 semesters of credit may be earned in a combination of Music 115ABCD and 215. Requires audition and concurrent enrollment in either a music ensemble or music theory course. Open Entry/Open Exit.

Music 121

Beginning Voice

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Group instruction designed to develop basic principles of solo and choral voice production, diction, breath control, and posture. Practice outside of class required. Recommended for non-music majors and for music majors not studying privately. A combination of Music 121, 122, 123, and 124 may be taken a maximum of four enrollments.

Music 122

Intermediate Voice

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.
 Prerequisite: Music 121 with minimum grade of C.

Group instruction designed to develop intermediate principles of solo and choral voice production, diction, breath control, and posture. Vocal analysis of each student emphasized. Practice outside of class required. Song literature matched to student level. Designed for both music majors and non-music majors. A combination of Music 121, 122, 123, and 124 may be taken a maximum of four enrollments.

Music 123

Advanced Voice

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.
 Prerequisite: Music 122 with minimum grade of C.

Group instruction designed to present advanced vocal exercises for solo and choral vocal production. Instruction includes song literature in English and several foreign languages. Practice outside of class required. Designed for both music majors and non-music majors. A combination of Music 121, 122, 123, and 124 may be taken a maximum of four enrollments.

Music 124

Advanced Vocal Production and Repertoire

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.
 Prerequisite: Music 123 with minimum grade of C.

Continuation of group instruction for students who have completed three semesters of voice and can perform at an advanced level. Further develops advanced vocal and choral production through a variety of vocal styles and techniques. Instruction includes advanced English and foreign language song literature. Practice outside of class required. Designed for both music majors and non-music majors. A combination of Music 121, 122, 123, and 124 may be taken a maximum of four enrollments.

Music 125A

Song Writing Workshop

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Instruction in song writing (words and music) in various styles. Career and business aspects introduced. Ability to notate music not necessary. Students are required to present their songs in class, live or pre-recorded.

Music 125B

Song Writing Workshop

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 125A with minimum grade of C.

Advanced instruction in song writing (words and music) in various styles. Assignments differ from Music 125A. Career/business aspects further explored. Songs presented in class. Students are encouraged to concurrently enroll in Music 109 or 111.

Music 132

The Jazz Singers

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Audition.

Rehearsal and performance of vocal jazz and popular compositions and arrangements. Performance is emphasized. Each semester requires a variety of new and different repertoire. May be repeated.

Music 134

Vocal Jazz Workshop

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Introduces, rehearses, and performs standard and current vocal jazz arrangements. Emphasizes basic vocal jazz elements such as improvisation and scat styles in addition to basic stage technique. Each semester requires performance of a variety of new repertoire. May be repeated.

Music 135

Concert Chorale

Unit(s): 1.0

Class Hours: 72 Laboratory total.

Rehearsal and performance of standard and current choral repertoire. Designed to train students in mixed ensemble singing. Public performance emphasized. Each semester requires performance of a variety of new and different repertoire. Designed for students who have basic singing skills. May be repeated.

Music 136

Collegiate Choir

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Mixed chorus which rehearses and performs a variety of music, including classical, folk tunes, and songs from Broadway musicals. Each semester requires performance of new repertoire. May be repeated. Grade: Pass/No Pass only.

Music 137 (C-ID MUS 180)

Chamber Choir

Unit(s): 1.0

Class Hours: 64 Laboratory total.

Prerequisite: Audition.

Rehearsal and performance of chamber choir repertoire from various historical periods. Course designed for festival and concert performance. Each semester requires the performance of new repertoire. May be repeated.

Music 140

Instrumental Methods for Winds and Percussion

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Instrumental instruction on woodwinds, brass, or percussion in an ensemble setting at the beginning and intermediate levels. Fundamental skills developed through rehearsal and in-class performance of technical exercises and beginning band repertoire.

Music 141

Instrumental Ensembles

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Audition.

Study, rehearsal, and performance of music for small commercial instrumental groups. Music literature will differ each semester. Previous instrumental performance experience recommended. Audition required. May be repeated.

**Music 142****Creating Music With MIDI**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Basic techniques in creating music with computer assisted technology including MIDI sequencing, drum track programming, editing, mixdown, and use of software sampler. Students learn MIDI applications through musical projects. Basic skill level on keyboard suggested.

Music 143**Intermediate Techniques of MIDI Sequencing**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 142 with a minimum grade of C.

Intermediate techniques of MIDI and computer sequencing including graphic editing, virtual mixing, MIDI effects and use of the sampler. Students learn MIDI applications and electronic composition through musical projects.

Music 144**Projects in Electronic Music**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 143 or Music 147 with a minimum grade of C.

Exploration of digital recording and MIDI concepts for commercial applications. Individual projects will improve and extend students' skills in the areas of composition, sequencing, and recording. Assignments will help prepare students for level 1 certification in Logic.

Music 145**Jazz Improvisation and Performance Workshop**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Performance and analysis of jazz standards and popular pieces in a practical workshop setting. Elements of improvisation and ensemble playing are stressed. Assumes a rudimentary understanding of chords and scales. Open to all instrumentalists and vocalists.

Music 146**Digital Recording Studio Techniques I**

Unit(s): 2.0

Class Hours: 24 Lecture, 24 Laboratory total.

Introductory class in computer-based hard disk recording. Emphasis on digital sound manipulation, editing, mixdown, and microphone techniques.

Music 147**Digital Recording Studio Techniques II**

Unit(s): 2.0

Class Hours: 24 Lecture, 24 Laboratory total.

Prerequisite: Music 146 with minimum grade of C.

Continuation of Digital Recording Studio Techniques I. Further study of digital sound manipulation, including digital effects, compression, equalization, editing on a digital mixer, live recording techniques, and CD production.

Music 148**Digital Music Synchronization to Multimedia**

Unit(s): 2.0

Class Hours: 24 Lecture, 24 Laboratory total.

Techniques of synchronizing MIDI and digital audio tracks to video. Compositional elements of scoring to picture as well as technical elements of using SMPTE time code are covered. Experience with MIDI sequencing and/or digital recording is necessary.

Music 149**The Business of Music**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Introduction to the business and legal aspects of the music industry. This course covers current trends and issues for performing and recording careers in music. Topics include copyright, royalties, recording contracts, performing rights organizations, publishing, and publicity.

Music 151**Commercial Music Theory**

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

Prerequisite: Music 111 with minimum grade of C.

Beginning instruction in popular and jazz theory and composition. MIDI workstations utilized in instruction. Includes study of chords, chord progressions, improvisation, and fundamentals.

Music 161**Class Piano I**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Group instruction for beginners emphasizing note reading, basic keyboard skills, chord patterns, and sight reading. Practice outside of class required. Practice pianos available on campus. Required for music majors whose principal instrument is not piano. A combination of Music 161, 162, 163, 164A, and 164B may be taken a maximum of four enrollments.

Music 162**Class Piano II**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 161 with minimum grade of C.

Group instruction for those possessing basic piano skills but still classified as beginners. Emphasizes note reading, keyboard technique, chord patterns, and sightreading. Daily practice required. Practice pianos available on campus. Required for music majors whose principal instrument is not piano. A combination of Music 161, 162, 163, 164A, and 164B may be taken a maximum of four enrollments.

Music 163**Class Piano III**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 162 with minimum grade of C.

Instruction for students who have completed two semesters of piano and are ready for the intermediate level. Emphasizes building technique, sight reading, and performance. Daily practice required. Practice pianos available on campus. A combination of Music 161, 162, 163, 164A, and 164B may be taken a maximum of four enrollments.

Music 164A**Intermediate Piano Repertoire I**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Music 163 with minimum grade of C.

Instruction for intermediate level students. Emphasizes solo material, technique, sight reading, interpretation, and performance. Daily practice required. Practice pianos available on campus. A combination of Music 161, 162, 163, 164A, and 164B may be taken a maximum of four enrollments.

Music 164B**Intermediate Piano Repertoire II**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Music 164A with minimum grade of C.

Continuation of instruction for advanced intermediate level students. Emphasizes solo material, technique, sight reading, and performance. Daily practice required. Practice pianos available on campus. A combination of Music 161, 162, 163, 164A, and 164B may be taken a maximum of four enrollments.

Music 165**Beginning Folk Guitar**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Instruction in beginning guitar, covering basic playing skills in various accompaniment, melody, and solo styles. No previous knowledge of music required. Student must furnish six-string guitar (nylon strings preferred).

Music 166A**Beginning Electric Bass**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Group instruction for beginners on electric bass. Introduction to basics of music notation, rhythm and blues, rock, jazz, and pop styles presented. Lead sheet interpretations are presented with practical performance ideas. Student must furnish electric bass.

**Music 166B****Intermediate Electric Bass**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 166A with minimum grade of C.

Intermediate group instruction on electric bass. Continuation in the basics of music, performance theory, styles, and technical skills introduced in Music 166A. Includes expanded chord vocabulary, new scales and modes, and introduction to jazz improvisation. Student must furnish electric bass.

Music 168**Stylistic Interpretation of Piano Repertoire**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 164B with a minimum grade of C.

Style characteristics of Baroque, Classical, Romantic and 20th century music studied through representative piano compositions. Students learn to play expressively within currently accepted performance practices for each period. Not for beginners. A combination of Music 168 and 268 may be taken a maximum of four enrollments.

Music 169**Harmonization At the Keyboard**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Beginning keyboard harmonization skills. Includes playing by ear and learning accompaniment patterns in several styles from simple chord progressions. Music 161 or elementary piano ability recommended.

Music 170**Piano Clinic**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Technique and literature review for piano students who have studied piano in the past. Class sessions include presentations of technical and stylistic elements, ensemble techniques, sightreading improvement, and individualized help. For intermediate players. May be repeated.

Music 171**Concert Band**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Study and rehearsal of band music for concert performances on campus and in the community. Each semester requires performance of new and different repertoire. Designed for students with basic performance skills. May be repeated.

Music 173**Beginning Rhythms in Percussion and Drums**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

The introduction of snare drum and drum set in a class situation. Designed to teach the basics of percussion and drum set performance for the beginning student. Emphasis on rhythmic reading, rudimental techniques, and basic drum set coordinates in various styles. May be repeated.

Music 175**Jazz Ensemble**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Study, rehearsal, and performance of contemporary jazz/rock music for the jazz ensemble with help in developing techniques of improvisation. Each semester requires performance of new and different jazz repertoire. Designed for students with basic performance skills. May be repeated.

Music 176**Jazz Band**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Advanced study, rehearsal, and performance of standard and contemporary jazz literature. Includes advanced techniques in improvisation. Each semester requires performance of new and different repertoire. Designed for students with basic performance skills. May be repeated.

Music 177**Latin Jazz Ensemble**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Rehearsal and performance of jazz repertoire with influences from the Caribbean, Brazil, and Latin America. Each semester requires the performance of different repertoire. Designed for students who have basic performance and reading skills. May be repeated.

Music 178**Mariachi**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Mixed ensemble for the study, rehearsal, and performance of Mariachi repertoire with an emphasis on the music from Jalisco. Each semester requires the performance of different repertoire. Designed for students who have basic performance skills. May be repeated.

Music 179**Technique Studies for Pianist**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 163 with minimum grade of C.

Group study of scales, arpeggios, and exercises to increase finger agility and keyboard control. Suggested concurrent enrollment with Music 164AB or applied piano studies in Music 115. Not for beginners.

Music 180A**String Methods**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Beginning instruction on violin, viola, cello, or string bass. Fundamental skills developed through in-class rehearsal and performance of technical exercises and beginning orchestral repertoire. A combination of Music 180A and 180B may be taken a maximum of four enrollments.

Music 180B**Intermediate String Methods**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 180A with a minimum grade of C.

Intermediate instruction on violin, viola, cello, or string bass. Skills developed through in-class rehearsal and performance of intermediate technical exercises and orchestral repertoire. A combination of Music 180A and 180B may be taken a maximum of four enrollments.

Music 181 (C-ID MUS 180)**Chamber Orchestra**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Rehearsal and performance of standard repertoire for chamber orchestra. Each semester requires the performance of a variety of different repertoire. Designed for students who have basic performance skills. May be repeated.

Music 185**Beginning Classical Guitar**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Basic instruction in guitar technique and music nomenclature as related to performance of entry level solo and ensemble repertoire. Student must furnish nylon string guitar. A combination of Music 185, 186, 187, and 188 may be taken a maximum of four enrollments.

**Music 186****Intermediate Classical Guitar**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 185 with a minimum grade of C.

Instruction at the intermediate level in solo, duo, and trio repertoire. Emphasizes technique studies and performance styles of 18th century music. Student must provide nylon string guitar. A combination of Music 185, 186, 187, and 188 may be taken a maximum of four enrollments.

Music 187**Advanced Classical Guitar**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Music 186 with a minimum grade of C.

Instruction at the advanced level in solo, duo, and trio repertoire. Emphasizes advanced technical studies and etudes and performance styles of 16th through 20th century music. Student must provide nylon string guitar. A combination of Music 185, 186, 187, and 188 may be taken a maximum of four enrollments.

Music 188**Advanced Classical Guitar Technique and Repertoire**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Prerequisite: Music 187 with minimum grade of C.

Study of advanced guitar technique, solo literature, and performance practices of Renaissance, Baroque, and Classical styles through 20th century music. Student must provide nylon string guitar. A combination of Music 185, 186, 187, and 188 may be taken a maximum of four enrollments.

Music 189**Guitar Ensemble**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Rehearsal and performance of standard and current repertoire for guitar ensemble. Each semester requires the performance of a variety of different repertoire. Designed for students who can read notes in first position. May be repeated.

Music 190**Introduction to ProTools**

Unit(s): 1.5

Class Hours: 16 Lecture, 24 Laboratory total.

Fundamental features and applications of ProTools audio software used in post-production for television, film, and music. Orientation to functions, user interface, and actual operation of digital audio workstation. Techniques and aesthetics associated with creation of well-mixed soundtracks are addressed. Hands-on practice with digital recording and editing of soundtracks (same as TV/Video Communications 190).

Music 211**Music History and Literature**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Music 112 with a minimum grade of C.

Survey of important European trends in musical style and form from the Middle Ages to the 20th century. Required for music majors. Open to non-music majors.

Music 213 (C-ID MUS 140)**Theory 3**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Music 112 with minimum grade of C.

Continuation of diatonic harmony from Music 112. Chromatic harmony introduced. Includes non-dominant seventh chords, secondary dominants, modulation, and altered chords. Keyboard harmony. Concurrent enrollment in Music 114A recommended. Required for music majors; open to non-majors.

Music 214 (C-ID MUS 150)**Theory 4**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Music 213 with minimum grade of C.

Continuation of Music 213. Late 19th century harmonic technique, and important aspects of 20th century style. Analysis and writing of short, derivative compositions. Keyboard harmony. Concurrent enrollment in Music 114B recommended. Required for music majors; open to non-majors.

Music 215A**Applied Music (Advanced Private Instruction)**

Unit(s): 1.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Music 115D with a minimum grade of C and audition. Concurrent enrollment in a music ensemble or music theory course.

Advanced lessons in classical music in voice, piano, band/orchestral instrument, or guitar. Weekly requirements include five hours on-campus practice per week, weekly lessons and weekly recital attendance. A combination of Music 115A, 115B, 115C, and 215A may be taken a maximum of four enrollments.

Music 216**Advanced Harmony and Composition I**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Music 214 with a minimum grade of C.

Extension of harmonic studies of Music 213 and 214 into complete small compositions. Emphasizes learning to write effectively for the piano. Introduction to simple contrapuntal techniques and how to combine words with music.

Music 217**Advanced Harmony and Composition II**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Music 214 with a minimum grade of C.

Extension of Music 213 and Music 214 harmonic studies into complete small compositions. Emphasizes development technique. Explores highly chromatic harmony, dissonance, and selected 20th century styles.

Music 218**Music Notation Using Finale Software**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Computer notation skills using Finale software. Covers various methods for inputting musical elements as well as editing, layout techniques, and score preparation. Intended for music students, music teachers, amateurs, and professionals.

Music 241**Chamber Music Ensemble**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Prerequisite: Audition.

Rehearsal and performance of music for small groups of strings, woodwinds, brass, percussion, and keyboard instruments in varying combinations. Each semester requires performance of new repertoire. Previous instrumental performance experience recommended. Audition required. May be repeated.

Music 268**Intermediate Keyboard Repertoire**

Unit(s): 1.0

Class Hours: 16 Lecture, 16 Laboratory total.

Prerequisite: Music 168 with a minimum grade of C.

Style characteristics of Baroque, Classical, Romantic and 20th century music studied through intermediate level piano compositions. Students learn to play expressively within currently accepted performance practices for each period. A combination of Music 168 and 268 may be taken a maximum of four enrollments.

Music 271**Symphonic Band**

Unit(s): 1.0

Class Hours: 48 Laboratory total.

The rehearsal and performance of band music. Preparation of standard band repertoire for performances in the community. Each semester requires performance of a variety of new and different repertoire. Designed for students with intermediate or advanced performance skills. May be repeated.



NURSING-CONTINUING EDUCATION (NCE)

Nursing-Continuing Education 145

Advanced Cardiac Life Support

Unit(s): 1.5

Class Hours: 24 Lecture total.

Prerequisite: Nursing-Registered 201 and 201L with minimum grade of C.

Examines principles of caring for patients experiencing cardiopulmonary emergencies. Includes arrhythmia recognition, psychomotor skills, and medications used to manage cardiac arrest. Current BLS card and fee required. Must contact Health Science Skills Lab at (714) 546-6869 for paperwork BEFORE registration. May be repeated. Grade: Pass/No Pass only.

NURSING-REGISTERED (NRN)

Nursing-Registered 051

Preparation for TEAS - English

Unit(s): 0.2

Class Hours: 3 Lecture total.

Designed to assist Nursing students in preparation for the English component of the Test of Essential Academic Skills exam. May be repeated. Grade: Pass/No Pass only.

Nursing-Registered 052

Preparation for TEAS - Math

Unit(s): 0.4

Class Hours: 6 Lecture total.

Designed to assist Nursing students in preparation for the math component of the Test of Essential Academic Skills. May be repeated. Grade: Pass/No Pass only.

Nursing-Registered 053

Preparation for TEAS - Reading

Unit(s): 0.2

Class Hours: 3 Lecture total.

Designed to assist Nursing students in preparation for the reading component of the Test of Essential Academic Skills. May be repeated. Grade: Pass/No Pass only.

Nursing-Registered 054

Preparation for TEAS - Science

Unit(s): 0.3

Class Hours: 4 Lecture total.

Designed to assist Nursing students in preparation for the science component of the Test of Essential Academic Skills. May be repeated. Grade: Pass/No Pass only.

Nursing-Registered 101

Nursing Process: Non-Critical Adults

Unit(s): 4.5

Class Hours: 72 Lecture total.

Prerequisite: Biology 239, Biology 249, Biology 139 or 229, and English 101/101H with a minimum grade of C. Concurrent enrollment in Nursing-Registered 101L.

Emphasizes nursing process in the care of adult and geriatric patients of diverse cultures with non-critical biological and psychosocial system needs deficits.

Nursing-Registered 101L

Nursing Actions: Non-Critical Adults

Unit(s): 5.0

Class Hours: 240 Laboratory total.

Prerequisite: Biology 239, Biology 249, Biology 139 or 229, and English 101/101H with minimum grade of C. Concurrent enrollment in Nursing-Registered 101.

Clinical experience emphasizing nursing process for adults and geriatric patients of diverse cultures with non-critical biological system needs. Focuses on psychomotor skills and application. Applies concepts to multicultural groups in acute and other community based settings.

Grade: Pass/No Pass only.

Nursing-Registered 102

Nursing Process: Women, Parents, and Children

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Nursing-Registered 101, 101L, 103, 112 with minimum grade of C. Concurrent enrollment in Nursing-Registered 102L.

Emphasizes nursing process of women, parents, and children of diverse cultures with biological and psychosocial system needs. Examines community-based nursing concepts. Focuses on growth and development across the life phases with emphasis on family centered care. Principles of I.V. therapy will also be emphasized.

Nursing-Registered 102L

Nursing Actions: Women, Parents and Children

Unit(s): 4.6

Class Hours: 220 Laboratory total.

Prerequisite: Nursing-Registered 101, 101L, 103, 112 with minimum grade of C. Concurrent enrollment in Nursing-Registered 102.

Clinical laboratory experience emphasizing the nursing process in the care of women, parents, and children of diverse cultures with biological and psychosocial system need deficits. Application of the nursing process in acute care and community-based settings. Focus is on the application of the biological and psychosocial theoretical concepts in clinical practice. Grade: Pass/No Pass only.

Nursing-Registered 103

Pharmacological Concepts of Nursing

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: English 101/101H, Biology 239, Biology 249, Biology 139 or 229 with minimum grade of C.

Introduction to pharmacology, dosage calculations, drug classifications, and application of nursing process to drug administration. Completion required prior to entry into Nursing-Registered 102/102L.

Nursing-Registered 105

Cooperative Work Experience Education-Occupational

Unit(s): 1.0 - 4.0

Class Hours: 75-360 Lecture total.

Prerequisite: Concurrent enrollment in Nursing-Registered 201L or 202L.

Supervised paid or volunteer experience in student's major including new or expanded responsibilities. Units are earned based on the number of hours worked per semester: 75-149 hours = 1 unit, 150-224 hours = 2 units, 225-299 hours = 3 units, and 300-360 hours = 4 units. May be repeated. Grade: Pass/No Pass only.

Nursing-Registered 106A

Health Sciences Skills Laboratory - First Semester

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Enrollment in the Registered Nursing Program, any N.C.E. courses, or RN re-entry.

Supervised use with supplemental learning assistance of the Skills Lab to assist the student in the development of clinical competency of nursing fundamentals and mastery of fundamental psychomotor skills content addressed in courses NRN-101 and NRN-101L. Grade: Pass/No Pass only. Open Entry/Open Exit.

Nursing-Registered 106B

Health Sciences Skills Laboratory - Second Semester

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Enrollment in the Registered Nursing Program, any N.C.E. courses, or RN re-entry.

Supervised use with supplemental learning assistance of Skills Lab to assist the student in development of clinical competency of nursing concepts pertaining to maternal-child health and mastery of psychomotor skills related to maternal-child biological and psychosocial needs addressed in courses NRN 102 and NRN 102L. Grade: Pass/No Pass only. Open Entry/Open Exit.

Nursing-Registered 106C

Health Sciences Skills Laboratory - First Year Refresher

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Enrollment in the Registered Nursing Program, Emergency Medical Technician, any N.C.E. courses, or RN re-entry.

Supervised use with supplemental learning assistance of Skills Lab to assist the re-entry student or EMT student in the expansion of clinical competency of principles of nursing and mastery of basic to intermediate psychomotor skills content addressed in courses NRN 101, NRN 101L, NRN 102, NRN 102L, EMT 101 or EMT 105. Grade: Pass/No Pass only. Open Entry/Open Exit.



Nursing-Registered 112
Nursing Concepts

Unit(s): 1.5

Class Hours: 24 Lecture total.

Prerequisite: English 101/101H, Biology 149 or Biology 239, Biology 249, Biology 139 or 229 with minimum grade of C.

Emphasizes development of the registered nurse, including role, communication, nursing process, legal and ethical concepts, test taking strategies, the Santa Ana College Conceptual Framework for nursing, nutrition, and medical terminology. Completion required prior to entry into Nursing-Registered 102/102L.

Nursing-Registered 200
Role Transition

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Acceptance into the Nursing Program.

Bridge course for LVN or transfer student with an emphasis on RN role development. Application of the nursing process within the Santa Ana College Conceptual Framework for nursing. Review of test-taking strategies, medication calculations, fluid balance, and skills testing. Open to all nursing students; required of advanced placement. Grade: Pass/No Pass only.

Nursing-Registered 201
Nursing Process: Critical Biological and Psychosocial System Needs I

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Nursing-Registered 102 and 102L with minimum grade of C. Concurrent enrollment in Nursing-Registered 201L.

Emphasizes nursing process of adult and geriatric patients of diverse cultures with critical biological and psychosocial system needs deficits.

Nursing-Registered 201L
Nurse Actions: Critical Biological and Psychosocial System Needs I

Unit(s): 5.0

Class Hours: 240 Laboratory total.

Prerequisite: Nursing-Registered 102, 102L with minimum grade of C. Concurrent enrollment in Nursing-Registered 201.

Application of the nursing process in caring for adults and geriatric patients of diverse cultures with critical biological and psychosocial system needs in institutional and community settings. Application of psychomotor skills and analysis of concepts. Grade: Pass/No Pass only.

Nursing-Registered 202
Nursing Process: Critical Biological And Psychosocial System Needs II

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Nursing-Registered 201 and 201L with a minimum grade of C; Concurrent enrollment in Nursing-Registered 202L.

Emphasizes nursing process for adult and geriatric patients of diverse cultures with critical psychosocial and biological system needs with a focus on R.N. role in leadership, decision-making, and patient teaching.

Nursing-Registered 202L
Nursing Action: Critical Biological and Psychosocial System Needs II

Unit(s): 5.4

Class Hours: 256 Laboratory total.

Prerequisite: Nursing-Registered 201, 201L with minimum grade of C. Concurrent enrollment in Nursing-Registered 202.

Application of leadership theory and nursing process to adult and geriatric patients of diverse cultures with critical psychosocial and biological system needs deficits. Application of cognitive content and practice of psychomotor skills.

Preceptorship time and location to be arranged. Grade: Pass/No Pass only.

Nursing-Registered 206A
Health Sciences Skills Laboratory - Third Semester

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Enrollment in the Registered Nursing Program, any N.C.E. courses, or RN re-entry.

Supervised use with supplemental learning assistance of Skills Lab to assist the student in development of clinical competency of mental health nursing and mastery of psychomotor skills content addressed in courses NRN 201 and NRN 201L. Grade: Pass/No Pass only. Open Entry/Open Exit.

Nursing-Registered 206B
Health Sciences Skills Laboratory - Fourth Semester

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Enrollment in the Registered Nursing Program, any N.C.E. courses, or RN re-entry.

Supervised use with supplemental learning assistance of Skills Lab to assist the student in development of clinical competency of advanced medical/surgical nursing concepts and mastery of advanced medical/surgical psychomotor skills content addressed in courses NRN 202 and NRN 202L. Grade: Pass/No Pass only. Open Entry/Open Exit.

Nursing-Registered 206C
Health Sciences Skills Laboratory - Second Year Transition

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Enrollment in the Registered Nursing Program, any N.C.E. courses, or RN re-entry.

Supervised use with supplemental learning assistance of Skills Lab to assist the RN refresher, advanced placed nursing student, or EMT student in the development and maintenance of clinical competency of nursing theoretical knowledge and mastery of advanced psychomotor skills content necessary for the transition into clinical practice as addressed in courses NRN 201, NRN 201L, NRN 202, NRN 202L, EMT 101, or EMT 105. Grade: Pass/No Pass only. Open Entry/Open Exit.

NUTRITION AND FOOD (NUTR)

Nutrition and Food 062
Basic Techniques of Cooking

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Basic techniques and principles of food preparation are practiced in skill applied laboratory (same as Culinary Arts 062).

Nutrition and Food 065
Contemporary Nutrition

Unit(s): 3.0

Class Hours: 48 Lecture total.

Nutrition fundamentals for health maintenance throughout the life cycles of diverse populations, including chronic diseases, weight control, and athletic performance; use of nutrient supplements and evaluation of information sources.

Nutrition and Food 101
The Food System and Career Opportunities

Unit(s): 3.0

Class Hours: 48 Lecture total.

Career opportunities and projected employment trends in nutrition and dietetics, culinary arts, hospitality, food science, and agribusiness are explored. Course covers scope and responsibilities of professional members in various food system careers. (CAN FCS 32) Transfer Credit: CSU.

Nutrition and Food 110
Food Sanitation and Safety

Unit(s): 3.0

Class Hours: 48 Lecture total.

Basic principles of sanitation and safety applied to commercial food service operations to comply with state regulations for sanitation certification. Includes certification knowledge of food borne illnesses and steps of food handling; personal hygiene, procurement, preparation, storage and service and equipment use, care, selection, and accident prevention (Same as Culinary Arts 110, Sanitation and Safety).

**Nutrition and Food 115****Nutrition**

Unit(s): 3.0

Class Hours: 48 Lecture total.

The function and sources of nutrients and their role in health and disease are assessed within the framework of anatomy, physiology, and chemistry. The course includes utilization of scientific methods to evaluate nutrition information, research, and application of current nutrition issues and controversies. The students will analyze their food intake.

Nutrition and Food 115H**Honors Nutrition**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An enriched, student-oriented assessment of the function and sources of nutrients and their role in health and disease within the framework of anatomy, physiology, and chemistry with application to the individual and population at large. The course includes utilization of scientific methods to evaluate nutrition information, research, and application of current nutrition issues and controversies and group nutrition projects-experiments. Students will analyze their food intake.

Nutrition and Food 116**Principles of Food Preparation**

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Negative T.B. test or chest X-ray.

Basic knowledge of food science and proficiency in food preparation techniques. Emphasizes scientific basis for preparation techniques, nutritional values, safety, sanitation, and product standards.

Nutrition and Food 118**Cultural Foods**

Unit(s): 3.0

Class Hours: 40 Lecture, 24 Laboratory total.

Prerequisite: Negative T.B. test or chest X-ray.

Insight into the diverse U.S. micro cultures will be broadened through a study of their foods. Explores major cultures with an emphasis on their history, American immigration and assimilation patterns, religious dietary laws, traditional diets, special customs, etiquette practices, and therapeutic uses for foods. Some examples of traditional foods will be prepared, sampled, and discussed in class.

Nutrition and Food 299**Cooperative Work Experience Education**

Unit(s): 1.0 - 4.0

Class Hours: 6 Lecture, 60-240 Lecture total.

Prerequisite: 6 units completed in Nutrition and Food Courses.

Supervised culinary arts field experience with new tasks in major. Student can earn 1 unit of credit for 80 hours worked up to 320 hours for 4 units. Grade: Pass/No Pass only.

OCCUPATIONAL THERAPY ASSISTANT (OTA)**Occupational Therapy Assistant 100****Terminology and Documentation for the O.T.A.**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Prerequisite: Biology 149 or 239 and 249 with a minimum grade of C.

This course will offer an introduction to basic medical terminology and documentation appropriate to practice needs of the Occupational Therapy Assistant.

Occupational Therapy Assistant 101**Foundations of Occupation and Occupational Therapy**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Course defines and explores occupation as it is used to provide the foundation for study of the occupational therapy profession with an overview of past and present practice.

Occupational Therapy Assistant 101L**Exploration of Occupation Through Activity**

Unit(s): 2.0

Class Hours: 102 Laboratory total.

Prerequisite: English 101/101H, and 3 units of Communication Studies (101/101H, or 102 or 140 or 145 or 152) with a minimum grade of C.

Clinical experience emphasizing the meaning and variability of occupation through analysis of occupational patterns, task analysis, opportunity to observe teaching and learning of selected populations, and practicing teaching and learning skills.

Occupational Therapy Assistant 102**Psychosocial Function and Dysfunction**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Occupational Therapy Assistant 101 and Occupational Therapy Assistant 101L with a minimum grade of C.

This course will define and explore psychosocial phenomena commonly seen by the Occupational Therapy Assistant and will examine evaluation techniques, functional deficits, and methods of treatment.

Occupational Therapy Assistant 102L**Psychosocial Components of Occupation**

Unit(s): 2.5

Class Hours: 128 Laboratory total.

Prerequisite: Occupational Therapy Assistant 100, 101, 101L with a minimum grade of C.

This course will explore the occupational therapy assistants' role in conducting assessments and treatment protocols used in pediatric, adolescent, and adult psychosocial settings.

Occupational Therapy Assistant 103**Physical Function and Dysfunction**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Occupational Therapy Assistant 102 and Occupational Therapy Assistant 102L with a minimum grade of C.

Emphasizes the physical components of development, the continuum of function/dysfunction of the client and the role of the O.T.A. in assessment and treatment of commonly seen physical dysfunction diagnosis.

Occupational Therapy Assistant 103L**Physical Components of Occupation**

Unit(s): 2.5

Class Hours: 128 Laboratory total.

Prerequisite: Occupational Therapy Assistant 102 and Occupational Therapy Assistant 102L with a minimum grade of C.

Explores the Occupational Therapy Assistant's role in conducting assessments and treatment commonly used by occupational therapists with clients across the life span.

Occupational Therapy Assistant 110**Human Occupation Across Lifespan**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course will explore human occupation across lifespan with an emphasis on the relationship between human development and occupational choice. Physical, cognitive, psychological, social, and linguistic developmental milestones and changes will be covered from fetal development through old age.

Occupational Therapy Assistant 111**Applied Kinesiology**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Prerequisite: Biology 149 or 239 and 249 with a minimum grade of C.

This course will focus on understanding human movement as an integral component of occupational performance and will examine how kinesiology and biomechanics are utilized in treatment by the Occupational Therapy Assistant.



Occupational Therapy Assistant 115 Human Disease and Occupation

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Occupational Therapy Assistant 101 with a minimum grade of C.

This class will explore diseases that are commonly seen in occupational therapy practice and the effect they have on participation in occupation. Each disease will be covered in terms of etiology, prognosis, prevention, pathophysiology, medical management, precautions, and lifestyle redesign required as a result of the disease.

Occupational Therapy Assistant 201 Contemporary Models of Occupational Therapy Practice

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Occupational Therapy Assistant 102 and Occupational Therapy Assistant 102L with a minimum grade of C.

This lecture/lab course explores the multiple roles of the occupational therapy assistant in documentation, service management, professional behaviors, non-traditional roles, and contemporary models of practice.

Occupational Therapy Assistant 202 Level II Fieldwork - Part I

Unit(s): 6.0

Class Hours: 320 Laboratory total.

Prerequisite: Occupational Therapy Assistant 103, 103L and 201 with a minimum grade of C.

Supervised fieldwork experience in an occupational therapy practice setting that will provide the student appropriate opportunities to apply learned knowledge and skills. Grade: Pass/No Pass only.

Occupational Therapy Assistant 203 Level II Fieldwork - Part II

Unit(s): 6.0

Class Hours: 320 Laboratory total.

Prerequisite: Occupational Therapy Assistant 103, Occupational Therapy Assistant 103L, Occupational Therapy Assistant 201 with a minimum grade of C.

Supervised fieldwork experience in an occupational therapy practice setting that will provide the student appropriate opportunities to apply knowledge and skills learned in the classroom. Grade: Pass/No Pass only.

PARALEGAL (PARA)

Paralegal 100 The Paralegal Profession

Unit(s): 3.0

Class Hours: 48 Lecture total.

A study of the paralegal/legal assistant profession. A study of career opportunities and legal requirements to become a paralegal/legal assistant. A study of the ethics of the legal profession.

Paralegal 101 Law Office Management

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Structure and procedures of the law office. Emphasis on organization of filing systems, litigation management, calendaring, tickler systems, indexing and summarizing documents, timekeeping, fees and billing, job search, and law office layout.

Paralegal 105 Cooperative Work Experience Education - Occupational

Unit(s): 1.0 - 4.0

Class Hours: 64 Lecture total.

Supervised paid or volunteer experience in student's major, including new or expanded responsibilities. One unit of credit for each 5 hours worked per week to a maximum of 4 units for 20 hours work per week each semester. Limitation of 16 units in occupational cooperative education courses. Students must be enrolled in minimum of 7 units. Grade: Pass/No Pass only.

Paralegal 107 Principles and Procedures in the Criminal Justice System

Unit(s): 3.0

Class Hours: 48 Lecture total.

Role, responsibilities, interrelationships of segments in justice system; law enforcement, courts, corrections; exposure to procedures from initial entry to probation and/or parole (same as Criminal Justice 107).

Paralegal 120 Computers in the Law Office

Unit(s): 4.0

Class Hours: 64 Lecture total.

Basic computer concepts for law office personnel. The focus will be on current hardware and software used in the law office.

Paralegal 121 Ethics and Professional Responsibility

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Ethics and professional responsibility for paralegals: fees, client funds, billing, advertising, solicitation, unauthorized practice, deceit, and confidentiality; conflict of interest, suppressing evidence, reporting misconduct, and professional practice obligations.

Paralegal 122 Elder Law

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Law and procedures for the aging population. Interviewing, advance directives, wills, trusts, guardianships, patients' rights in healthcare decisions, entitlement programs, managed care, long-term care insurance, viatical settlements, living facilities, financial planning, social security, and elder abuse.

Paralegal 130 Legal Transactions

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Introduction to contracts and drafting legal documents. Contract formation, performance, breach, and third party interests. Students will learn to draft various contracts and other documents and will select, edit, and customize formbook and computerized forms in real property, family law, and estate planning.

Paralegal 131 Alternate Dispute Resolution

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Conflict resolution through techniques of negotiation, mediation, and arbitration. Students will identify sources of conflict, analyze personalities, mediate impartially, and use tools to maximize negotiation effectiveness. The course includes application of mediation skills in the law office and in other situations.

Paralegal 132 Family Law and Procedure

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Study of basic substantive law and procedures in family law area: Court procedures for divorce, annulment, temporary and permanent support, restraining orders, division of community property, and child custody procedures, including adoption and paternity actions.

Paralegal 133 Workers Compensation Law and Procedure

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Laws and procedures related to workers compensation. Covers medical-legal problems attendant to on-the-job injuries, disabilities and benefits due employees, court litigation, administrative hearings, and out-of-court processes.

**Paralegal 134****Probate Law and Procedure**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Probate and estate planning procedures. Skills required to draft probate documents, assist attorneys in administration of estates, and monitoring asset and fiduciary accountings. Basic probate laws, wills, trusts, and taxes.

Paralegal 135**Bankruptcy Law and Procedure**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Federal bankruptcy act and court procedures for the paralegal, the functions of the bankruptcy trustee, and a detailed examination of the process of being declared a bankrupt.

Paralegal 136**Real Property Law and Procedure**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Purchase sales agreements, mortgages, leases, easements, deeds, closing and recording of documents, public domain, condemnation, title searches, foreclosure process, eviction process (unlawful detainer), and landlord-tenant law.

Paralegal 137**Tort and Insurance Law**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Intentional torts, negligence, strict liability, product liability, damages, immunity, and defenses to torts. Principles of insurance law, and procedures for the investigation of personal injury cases.

Paralegal 138**Law of Business Organizations**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Laws of the California Corporations Code. Students prepare articles of incorporation, minutes, by-laws, stock, and stock transfer. Agency law and partnership laws.

Paralegal 139**Fundamentals of Labor Law**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Principles of substantive and procedural law, stressing union representation and unfair labor practices under the National Labor Relations Act. Stresses principles of arbitration, contractual and disciplinary employment disputes, and pursuing remedies and presenting defenses for violations of equal employment, sexual harassment, and wrongful termination.

Paralegal 140**Immigration Law and Procedure**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Basic study of Immigration Law in the United States, with focus on preparation of those forms used by immigrants to secure benefits. Computerized preparation of forms and procedures for filing with INS will be emphasized. Marketing procedures for paralegals involved in Immigration Law will be analyzed, and ethical considerations to avoid the illegal practice of law will be covered.

Paralegal 143**Civil Litigation Overview**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Overview of California civil procedure from acceptance of case to trial. Planning litigation, pleadings, motions, discovery, and trial preparation.

Paralegal 144**Discovery Techniques**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100 and Paralegal 143 with a minimum grade of C or concurrent enrollment.

Focus on the Discovery Phase of litigation. Overview of California discovery rules, the discovery plan preparation of discovery documents, and responses. Practical applications for paralegal.

Paralegal 145**Civil Litigation Overview**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Overview of California procedures from acceptance of a case through trial. Planning litigation, motions, discovery, and trial preparation. Preparation of pleadings. Overview of California discovery rules, preparation of discovery documents, and responses.

Paralegal 146**Tort Law and Alternative Dispute Resolution**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Intentional torts, negligence, strict liability, product liability, damages, immunity, and defenses to torts. Principles of insurance law and procedures for the investigation of personal injury cases. Principles of dispute resolution through negotiation, mediation, and arbitration. Students will mediate impartially and use tools to maximize negotiation effectiveness. The course includes application of mediation skills in the law office.

Paralegal 147**International Commercial Agreements and Distribution Law**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn to create business contracts in the global marketplace and how to use the U.N. Convention on Contracts for the International Sale of Goods. Learn about contracts with foreign sales representatives and laws regulating international distribution. Learn about international limited liability companies and foreign direct investment laws (same as Business 147).

Paralegal 148**International Intellectual Property Law**

Unit(s): 1.0

Class Hours: 16 Lecture total.

Learn international intellectual property law - patents, copyrights, trademarks, and trade secrets. Learn international treaties relating to intellectual property rights. Learn technology licensing agreements and international franchising (same as Business 148).

Paralegal 149**The Law of Global Commerce**

Unit(s): 1.0

Class Hours: 16 Lecture total.

How countries join together to create trade. Includes NAFTA, GATT, the EU, and other trade agreements around the world. Explore law in different legal systems as well as U.S. export regulations (same as Business 149).



Paralegal 150 Legal Transactions

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Introduction to contracts and drafting legal documents for corporations and real estate transactions. Contract formation, performance, breach, and third party interests. Student will learn the laws of the California Corporations Code and the laws governing real estate transactions. Student will learn to draft various contracts and other documents and will select, edit, and customize formbook and computerized forms in real property, corporations, family law, and estate planning.

Paralegal 246 Legal Research and Analysis

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Paralegal 100 with a minimum grade of C or concurrent enrollment.

Principles of research, analysis, and techniques for the Paralegal. Must be familiar with civil procedure.

Paralegal 248 Advanced Research and Writing

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Paralegal 100 and Paralegal 246 with a minimum grade of C or concurrent enrollment.

Advanced projects in legal research and writing emphasis on legal form and style.

Paralegal 297 The Professional Paralegal (Formerly: Paralegal 298)

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Paralegal 100, 101, 120, 121, 246, and either (Business 101 or 105) or all of the following: (Paralegal 107, 130, 131, 136, 137, and 138) with a minimum grade of C.

This is the capstone class to the paralegal degree formally known as Para 298. Students will demonstrate their knowledge of ethics, legal principles, and the technical skills necessary for entry-level employment as a paralegal. Grade: Pass/No Pass only.

Paralegal 299 Cooperative Work Experience Education

Unit(s): 1.0 - 4.0

Class Hours: 64 Lecture total.

Supervised volunteer or employment experience and study related to Paralegal major including new and expanded responsibilities. One unit of credit for each 5 hours worked per week to a maximum of 4 units for 20 hours per week each semester. Limitation of 8 units in Paralegal Cooperative Education courses. Must enroll in minimum 7 units. Grade: Pass/No Pass only.

PHARMACY TECHNOLOGY (PHAR)

Pharmacy Technology 048

Introduction to Pharmacy Technology

Unit(s): 2.0

Class Hours: 32 Lecture total.

Overview of the SAC Pharmacy Technician training program. Definition of the roles and preview of the opportunities open to pharmacy technicians in various practice settings. Presentation of pharmaceutical dosage forms, the drug development process, and drug classification systems. Introduction to prescription labeling and to the law and ethics of pharmacy practice.

Pharmacy Technology 051

Body Systems I

Unit(s): 3.5

Class Hours: 56 Lecture total.

Anatomy, physiology, pathology, and pharmacology of the musculoskeletal, respiratory, renal, and cardiovascular systems. Basic terminology, with emphasis on word analysis and construction, medical abbreviations, and lay terms. Trade/generic names and indications for each body system.

Pharmacy Technology 052

Body Systems II

Unit(s): 3.5

Class Hours: 56 Lecture total.

Anatomy, physiology, pathology, and pharmacology of the integumentary, endocrine, gastrointestinal, and nervous systems. Basic terminology, with emphasis on word analysis and construction, medical abbreviations, and lay terms. Trade/generic drug names and indications for medications in each body system.

Pharmacy Technology 054

Pharmacy Calculations

Unit(s): 2.0

Class Hours: 32 Lecture total.

Calculations related to drug dosage, measurements of strength, and preparation of medications. Includes interconversion of units in the metric and common systems of measurement. Emphasis on unit-cancellation for solving pharmacy situation problems. Strong verbal component.

Pharmacy Technology 056

Pharmacy Operations

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

Prerequisite: Completion of Pharmacy Technology 048, 054, and 051 or 052 with a minimum grade of C, 30 wpm typing.

Hands-on training in customer service, inventory control, compounding, packaging, record-keeping, and drug distribution in the outpatient pharmacy setting. Includes prescription lab simulations and use of computers.

Pharmacy Technology 056L

Pharmacy Technology Skills Lab

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in Pharmacy Technology 056. Returning students who took 056 can take Pharmacy Technology 056L alone.

Supervised use of the Pharmacy Technology Skills Lab (a supplemental learning assistance course) to assist the students in developing competency in the technical skills required to successfully complete the Pharmacy Operations lab class. Additionally, this Skills Lab class allows students working in one setting of pharmacy to come back and practice skills in another setting. Skills Lab class also allows students with significant time lapsed from program attendance to prepare for externship or job placements. Significant time lapsed is defined as 1 year by departmental policy in compliance with the American Society of Health-System Pharmacists' re-accreditation body. Lab hours verified by sign-in. One-half (0.5) unit is required for the Advanced Certificate and A.S. degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Pharmacy Technology 057

Inpatient Pharmacy Services

Unit(s): 1.8

Class Hours: 18 Lecture, 30 Laboratory total.

Prerequisite: Completion of Pharmacy Technology 048, 054, and 051 or 052 with a minimum grade of C, 30 wpm typing.

Technical aspects of drug distribution for the inpatient (hospital) pharmacy setting. Hands-on training in medication order processing, pharmacy patient profile maintenance, medication preparation, and inpatient drug distribution using manual and automated systems. Includes electronic and manual record-keeping, pharmacy law, and CQI.



Pharmacy Technology 057L
Pharmacy Technology Skills Lab

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in Pharmacy Technology 057. Returning students who took Pharmacy Technology 057 can take Pharmacy Technology 057L alone.

Supervised use of the Pharmacy Technology Skills Lab (a supplemental learning assistance course) to assist the students in developing competency in the technical skills required to successfully complete the Inpatient Pharmacy Services lab class (Pharmacy Technology 057). Additionally, this Skills Lab class allows students working in one setting of pharmacy to come back and practice skills in another setting. Skills Lab class also allows students with significant time lapsed from program attendance to prepare for externship or job placements. Significant time lapsed is defined as 1 year by departmental policy in compliance with the American Society of Health-System Pharmacists' re-accreditation body. Lab hours verified by sign-in. One-half (0.5) unit is required for the Advanced Certificate and A.S. degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Pharmacy Technology 060
Sterile Products

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

Prerequisite: Pharmacy Technology 048, 054, and 051 or 052 with a minimum grade of C, 30 wpm typing.

Application of aseptic techniques and use of the laminar flow hood in the preparation of sterile products in accordance to USP 797. Emphasis on parenteral calculations, sterile dosage forms, and quality assurance procedures. Includes the pharmacology of antimicrobial and antineoplastic drugs.

Pharmacy Technology 060L
Pharmacy Technology Skills Lab

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in Pharmacy Technology 060. Returning students who took 060 can take Pharmacy Technology 060L alone.

Supervised use of the Pharmacy Technology Skills Lab (a supplemental learning assistance course) to assist the students in developing competency in the technical skills required to successfully complete the Sterile Products lab class (Pharmacy Technology 060). Additionally, this Skills Lab class allows students working in one setting of pharmacy to come back and practice skills in another setting. Skills Lab class also allows students with significant time lapsed from program attendance to prepare for externship or job placements. Significant time lapsed is defined as 1 year by departmental policy in compliance with the American Society of Health-System Pharmacists' re-accreditation body. Lab hours verified by sign-in. One-half (0.5) unit is required for the Advanced Certificate and A.S. degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Pharmacy Technology 072
Pharmacy Technology Externship

Unit(s): 0.8 - 10.0

Class Hours: 40-480 Laboratory total.

Prerequisite: Pharmacy Technology 056 (Pharmacy Operations), or Pharmacy Technology 056 and Pharmacy Technology 057 (Inpatient Pharmacy Services), or Pharmacy Technology 060 (Sterile Products) with a minimum grade of C. Communication Studies 097 or 101 or 101H or 102 with a minimum grade of C. Background checks, health screenings, current TB clearance and drugs test clearance.

On-site training in three pharmacy practice settings. Students must complete the related lab course prior to placement in a specific rotation: Pharmacy Technology 056 for outpatient, Pharmacy Technology 057 and Pharmacy Technology 056 for inpatient, Pharmacy Technology 060 for sterile products. Students must pass the trade-generic test prior to placement. Some sites require additional background, health screenings, and drugs tests. Completion of all three rotations (320 hours) is required for the advanced certificate. At the end of the rotation, the instructor will use the attendance records and competency forms as input from preceptors to assess the student learning outcomes and to help determine final grades. Students can refer to the course overview to understand the details of final grade assignments. Grade: Pass/No Pass only. Open Entry/Open Exit.

Pharmacy Technology 072L1
Pharmacy Technology Skills Lab

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in Pharmacy Technology Externship Pharmacy Technology 072. Returning students who took Pharmacy Technology 056 can take Pharmacy Technology 072L-1 alone.

Supervised use of the Pharmacy Technology Skills Lab (a supplemental learning assistance course) to assist the students in developing competency in the technical skills required to successfully complete the Outpatient Pharmacy Technology Externship rotation (Pharmacy Technology 072). Additionally, this Skills Lab class allows students working in one setting of pharmacy to come back and practice skills in another setting. Skills Lab class also allows students with significant time lapsed from program attendance to prepare for externship or job placements. Significant time lapsed is defined as 1 year by departmental policy in compliance with the American Society of Health-System Pharmacists' re-accreditation body. Lab hours verified by sign-in. One-half (0.5) unit is required for the Advanced Certificate and A.S. degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Pharmacy Technology 072L2
Pharmacy Technology Skills Lab

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in Pharmacy Technology Externship Pharmacy Technology 072. Returning students who took Pharmacy Technology 057 can take Pharmacy Technology 072L-2 alone.

Supervised use of the Pharmacy Technology Skills Lab (a supplemental learning assistance course) to assist the students in developing competency in the technical skills required to successfully complete the Inpatient Pharmacy Technology Externship rotation (Pharmacy Technology 072). Additionally, this Skills Lab class allows students working in one setting of pharmacy to come back and practice skills in another setting. Skills Lab class also allows students with significant time lapsed from program attendance to prepare for externship or job placements. Significant time lapsed is defined as 1 year by departmental policy in compliance with the American Society of Health-System Pharmacists' re-accreditation body. Lab hours verified by sign-in. One-half (0.5) unit is required for the Advanced Certificate and A.S. degree. Grade: Pass/No Pass only. Open Entry/Open Exit.



**Pharmacy Technology 072L3
Pharmacy Technology Skills Lab**

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in Pharmacy Technology Externship Pharmacy Technology 072. Returning students who took Pharmacy Technology 060 can take Pharmacy Technology 072L-3 alone.

Supervised use of the Pharmacy Technology Skills Lab (a supplemental learning assistance course) to assist the students in developing competency in the technical skills required to successfully complete the Pharmacy Externship Sterile Products rotation (Pharmacy Technology 072). Additionally, this Skills Lab class allows students working in one setting of pharmacy to come back and practice skills in another setting. Skills Lab class also allows students with significant time lapsed from program attendance to prepare for externship or job placements. Significant time lapsed is defined as 1 year by departmental policy in compliance with the American Society of Health-System Pharmacists' re-accreditation body. Lab hours verified by sign-in. One-half (0.5) unit is required for the Advanced Certificate and A.S. degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

**Pharmacy Technology 080
Pharmacy Calculations Review**

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Pharmacy Technology 054 with a minimum grade of C.

Review of calculations related to drug dosage, measurements of strength, and preparations of medications. Includes interconversion of units in the metric and common systems of measurements. Emphasis on unit-cancellation for solving pharmacy situation problems.

**Pharmacy Technology 084
Sterile Products Update**

Unit(s): 4.5

Class Hours: 48 Lecture, 80 Laboratory total.

Prerequisite: Pharmacy Technology 060 with a minimum grade of C.

Update of aseptic techniques and use of the laminar flow hood in the preparation of sterile products in accordance to USP 797. Emphasis on parenteral calculations, sterile dosage forms, and quality assurance procedures. Includes the pharmacology of antimicrobial and antineoplastic drugs.

**Pharmacy Technology 084L
Pharmacy Technology Skills Lab**

Unit(s): 0.5 - 1.0

Class Hours: 24-48 Laboratory total.

Prerequisite: Concurrent enrollment in Pharmacy Technology 084, Sterile Products Update. Returning students who took Pharmacy Technology 060 or Pharmacy Technology 084 can take Pharmacy Technology 084L alone.

Supervised use of the Pharmacy Technology Skills Lab (a supplemental learning assistance course) to assist the students in developing competency in the technical skills required to successfully complete the Sterile Products Update class (Pharmacy Technology 084). Additionally, this Skills Lab class allows students working in one setting of pharmacy to come back and practice skills in another setting. Skills Lab class also allows students with significant time lapsed from program attendance to prepare for externship or job placements. Significant time lapsed is defined as 1 year by departmental policy in compliance with the American Society of Health-System Pharmacists' re-accreditation body. Lab hours verified by sign-in. One-half (0.5) unit is required for the Advanced Certificate and A.S. degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

PHILOSOPHY (PHIL)

Philosophy 106

Introduction to Philosophy

Unit(s): 3.0

Class Hours: 48 Lecture total.

A survey of historical and contemporary ideas on how to live the good life.

Philosophy 106H

Honors Introduction to Philosophy

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An enriched approach designed for honors students. A survey of historical and contemporary ideas on how to live the good life.

Philosophy 108

Ethics

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to key historical and modern theories of philosophical ethics and the application of these theories to ethical issues facing society today. Assists in clarifying our thinking about morality/ethics. Course increases awareness of values in personal and contemporary issues.

**Philosophy 110
Critical Thinking**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C.

College-level critical thinking and writing. Promotes self-awareness, independent thinking, and improved academic expression. Examines philosophical methods of reasoning and composition, and the uses of informal logic and criticism in personal life, college, work, and democratic society.

**Philosophy 110H
Honors Critical Thinking**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: English 101/101H with a minimum grade of C and a high school or college GPA of 3.0 or above.

An enriched approach designed for honors students in a seminar setting. College-level critical thinking and writing. Promotes self-awareness, independent thinking, and improved academic expression. Examines philosophical methods of reasoning and composition, and the uses of informal logic and criticism in personal life, college, work, and democratic society.

**Philosophy 111 (C-ID PHIL 110)
Introductory Logic**

Unit(s): 4.0

Class Hours: 64 Lecture total.

Beginning course in formal and applied logic. Covers cognitive language, formal argument, proof, basic propositional and predicate logic, and philosophy of logic. Emphasizes active student involvement and practical application to college life.

**Philosophy 112
World Religions**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A philosophical overview of the world's great religions. Includes historical origin and growth of each religion, major doctrines, and influence. Religions dealt with include Primitive, Hinduism, Jainism, Buddhism, Taoism, Confucianism, Judaism, Christianity and Islam.

**Philosophy 118
History of Philosophy**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to philosophy from an historical perspective: getting acquainted with the thoughts of the world's great philosophers. Provides a survey of the dominant philosophies of the ancient, medieval, and modern worlds.



Philosophy 144
Reasoning and Problem Solving
 Unit(s): 3.0

Class Hours: 48 Lecture total.

The nature of critical thinking, models and strategies; common fallacies of reasoning, self-regulation in the thinking process; application of critical thinking to complex issues of life. Not open to students who are enrolled, or have credit in, Counseling 144.

PHOTOGRAPHY (PHOT)

Photography 009
Photography Lab

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Concurrent enrollment in a photography course.

Sign-in/out supervised laboratory. Work on assignments from other photography courses or on independent projects. Completion of new and more advanced assignments each semester. Accumulation of 24 hours earns 0.5 unit. Requires concurrent enrollment in a photography course. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Photography 010
Intermediate Photography Lab

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Prerequisite: Concurrent enrollment in a photography course.

Sign-in/out supervised laboratory. Work on assignments from other photography courses or on independent projects. Completion of new and more advanced assignments each semester. Accumulation of 24 hours earns 0.5 unit. Requires concurrent enrollment in a photography course. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Photography 150
History of Photography

Unit(s): 3.0

Class Hours: 48 Lecture total.

A survey of the history, aesthetics, and technical evolution of photography including an in-depth view of artistic styles and individual photographers' contributions from the 19th century to the present.

Photography 180
Beginning Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

This course provides students with an introduction to visual concepts, basic image capture, and camera functions with digital cameras. Software basics for photographic imaging and digital printing, along with digital printing will be taught.

Photography 185A
Landscape Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

This course concentrates on producing images under available light conditions found in natural and man-made environments. Topics include creating awareness of light and its function along with learning techniques for exposing under many different lighting conditions.

Photography 185B
Landscape Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 185A with a minimum grade of C.

Continued instruction in cityscape, seascape, and landscape photography with special attention given to documentary, pictorial, and metaphorical styles. An adjustable film camera required. May be repeated.

Photography 190
Introduction to Digital Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

Introduction to digital photography. Exploration of digital photography capabilities and uses of the "digital darkroom." Students will learn scanning and digital printing technologies and will produce both color and black and white digital images. Adjustable digital camera is required.

Photography 191
Commercial Studio Practices

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

Instruction in specialized technical alternatives utilized in commercial studio photography. Emphasis will be on professional image-making with digital equipment, using scanning, digital printing, and commercial lighting techniques.

Photography 194
Digital Workflow

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

This class will provide a foundation for capturing and processing RAW digital photo files with the high end digital imaging hardware and software.

Photography 196
Commercial Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

This course instructs the student with lighting and studio techniques as commonly used in professional photographic applications. The emphasis will be on light and the use of lighting equipment in both studio and location situations.

Photography 197
Intermediate Commercial Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 196 with a minimum grade of C.

Intermediate techniques in commercial photography using available and studio lighting. Further studies in the commercial subject areas of portrait/wedding, architecture, table top/product illustration, stock photography and photojournalism.

Photography 291
Wedding and Quinceanera Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

Instruction in fundamental concepts, equipment demands, and photographic techniques used by contemporary wedding/quinceanera photographers. May be repeated.

Photography 292
Portrait Photography

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

In this course, the student will learn portrait styles and techniques using both natural and artificial lighting in the studio and on location.

Photography 294
Color Photographic Expression

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Photography 180 with a minimum grade of C.

Introduction to the theory and practice of printing from slides as a fine art medium. Course includes lectures, interpretive (field) assignments, laboratory work, and critiques. Camera required.



PHYSICAL SCIENCE (PSC)

Physical Science 115

Concepts in Physical Sciences for Educators

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

An investigation of basic principles of physics and chemistry including matter, physical and chemical properties, energy, motion, light, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. Designed for non-science majors, concepts are introduced in lab through inquiry and further developed during discussion. Completion of Math N48 is recommended (same as Chemistry 115).

Physical Science 117

Physical Science Survey

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to the methods of science and concepts relating to mechanics, states of matter, waves, heat, electricity, light, atomic structure, and chemical reactions. May include topics from Earth and space science. Emphasis is on basic principles, relationships, and applications to modern civilization. This course is open to all majors. Concurrent enrollment in Physical Science 118 is highly recommended.

Physical Science 118

Physical Science Survey Laboratory

Unit(s): 1.0

Class Hours: 48 Laboratory total.

Laboratory course to accompany Physical Science 117. Laboratory topics include: motion, forces, energy, thermodynamics, electricity, circuits, optics, and chemical reactions.

PHYSICS (PHYS)

Physics 109

Survey of General Physics

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

The study of important phenomena in physics. Topics include: mechanics, fluids, thermodynamics, sound, light, electricity, magnetism, and modern physics. Recommended for all students interested in a conceptual approach to physics and students planning on taking more advanced courses in physics.

Physics 210

Principles of Physics I

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Mathematics 180/180H with a minimum grade of C.

A calculus-based physics course designed for students majoring in the life sciences, pre-medicine, and related disciplines. Topics include classical mechanics, wave motion, and thermodynamics.

Physics 211

Principles of Physics II

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Physics 210 and Mathematics 180/180H with a minimum grade of C.

A calculus-based physics course designed for students majoring in the life sciences, pre-medicine, and related disciplines.

Topics include: electricity and magnetism, light, optics, and modern physics.

Physics 217 (C-ID PHYS 205)

Engineering Physics I

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Mathematics 180/180H with a minimum grade of C.

Principles of classical mechanics including particle dynamics, forces, work, energy, momentum, rotational motion, equilibrium, harmonic motion, and gravity. This course is designed for students majoring in physical sciences and engineering.

Physics 227 (C-ID PHYS 210)

Engineering Physics II

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Physics 217 and Mathematics 185 with a minimum grade of C.

Introduces the basic principles of electricity and magnetism. The main topics are electrostatics, circuits, magnetism, electro-magnetic induction, and Maxwell's equations. This course is designed for students majoring in physical sciences and engineering.

Physics 237

Engineering Physics III

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Physics 217 and Mathematics 185 with a minimum grade of C.

Introduces the basic principles of fluids, thermodynamics, sound, light, optics, and modern physics. This course is designed for students majoring in physical sciences and engineering.

Physics 279

College Physics I

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Mathematics 160 with a minimum grade of C.

A trigonometry-based physics course.

Topics include: mechanics, thermodynamics, fluids, oscillatory motion, and sound.

Physics 289

College Physics II

Unit(s): 4.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Physics 279 with a minimum grade of C.

A trigonometry-based physics course.

Topics include: light, electricity, magnetism, and modern physics.

POLITICAL SCIENCE (POLT)

Political Science 101

Introduction to American Governments

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of United States national government and California state and local governments. Satisfies graduation requirement for American institutions and state requirements for California state government.

Political Science 101H

Honors Introduction to American Governments

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

A student-oriented exploration of the historical and contemporary principles of American government. Study groups and individual computer-based research focus on basic political concepts of American national and state governments. Satisfies graduation requirement for American Institutions and state requirements for California state government.

Political Science 200

American Political Thought

Unit(s): 3.0

Class Hours: 48 Lecture total.

An inquiry into the major influences that have shaped American political thought. Emphasis is on an historical analysis of political thought contributing to contemporary politics.

Political Science 200H

Honors American Political Thought

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

An inquiry into the major influences that have shaped American political thought. Emphasis is on the historical analysis of political thought contributing to contemporary politics.

Political Science 201

Introduction to Comparative Politics

Unit(s): 3.0

Class Hours: 48 Lecture total.

A study of the histories, political cultures, and governmental arrangements of various nations and regions around the world. Comparative study is made of the "First World" or industrialized democracies, the "Second World" or former and current communist countries, and the "Third World" developing, and "Fourth World" non-developing countries.



Political Science 220
International Politics

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to basic principles and issues of international politics. Focus is on concepts of security, power, diplomacy, war, terrorism, and globalization. Examines problems of developed versus developing nations in context of the new world order.

Political Science 235
Identity Politics

Unit(s): 3.0

Class Hours: 48 Lecture total.

An inquiry into the history of racial/ethnic minority groups in American politics with an emphasis on political coalitions among different minority groups in contemporary politics.

PSYCHOLOGY (PSYC)

Psychology 100 (C-ID PSY 110)
Introduction to Psychology

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to the major theories, methods, concepts, ethical issues, and findings in the major fields in psychology including (but not limited to): biological bases of behavior, perception, cognition and consciousness, learning, memory, emotion, motivation, development, personality, social psychology, psychological disorders and therapeutic approaches, and applied psychology.

Psychology 100H (C-ID PSY 110)
Honors Introduction to Psychology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Seminar-style, content enriched course for honors students exploring the the major theories, methods, concepts, ethical issues, and findings in the major fields in psychology including (but not limited to): biological bases of behavior, perception, cognition and consciousness, learning, memory, emotion, motivation, development, personality, social psychology, psychological disorders and therapeutic approaches, and applied psychology.

Psychology 140

Introduction to Psychology of Adulthood And Aging

Unit(s): 3.0

Class Hours: 48 Lecture total.

Examines psychological and related biological and social changes that occur in adulthood and old age and how these changes vary with ethnicity, gender and social class. Topics include longevity, health, successful aging, intimate and family relationships and mental disorders of adulthood. Designed to help students understand their own and others' aging and to familiarize them with issues in the field of gerontology.

Psychology 157 (C-ID CDEV 100)
Introduction to Child Psychology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Survey of human development from conception through adolescence. Covers major theories development (cognition, perception, language, personality, social, etc.) and their application to parenting, teaching, and other interactions with children.

Psychology 170

Multicultural Psychology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduces students to important issues related to cultural diversity in the field of psychology. Major areas of psychology will be explored from a multicultural perspective, including research, mental health, social psychology, and identity development. Exploration of historically underrepresented populations in the U.S. will be emphasized.

Psychology 200

Introduction to Biological Psychology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Explores relationships between physiological structures of the body and human behavior. Focuses on the organization and function of the brain, spinal cord, peripheral nervous system, glands, sensory and perceptual systems. Relates physiological functioning to motivated behavior, addiction, and psychological disorders.

Psychology 210

Statistics for the Behavioral Sciences

Unit(s): 4.0

Class Hours: 64 Lecture total.

Prerequisite: Mathematics 080 or Mathematics 081 with a minimum grade of C; OR placement into Psychology 210 on the Mathematics Level 3 placement Exam and a course equivalent to Mathematics 080 or 081.

Introduces psychology and behavioral science majors to descriptive and inferential statistical methods. Knowledge of these methods is essential to the understanding, interpretation, and performance of scientific research. Topics covered include probability theory, hypothesis testing, correlation, analysis of variance, the graphical representation of data, basic research design, and the use of computer software to perform statistical analyses.

Psychology 219

Introduction to Research Methods in Psychology

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Social Science 219 or Mathematics 219 (may be taken concurrently) and Psychology 100 with a minimum grade of C.

Emphasizes methods of study in psychology including: sound and ethical experimental design, analysis of variables contributing to experimental results, data treatment, and communicating findings.

Psychology 230

Psychology and Effective Behavior

Unit(s): 3.0

Class Hours: 48 Lecture total.

Application of theory and research in psychology to deal effectively with the adjustment demands of everyday life. Covers topics such as: interpersonal relationships, stress, health, time-management, and working. Includes exercises for increasing self-awareness, self-motivation, and self-management of everyday problems.

Psychology 240 (C-ID PSY 170)

Introduction to Social Psychology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Psychology 100 or Sociology 100 with a minimum grade of C.

An exploration of the interlocking dynamics of psychology and sociology focusing on the impact of social groups on individuals and on other groups. Content includes self-development, interaction, attitudes, conformity, friendship, love, aggression, group dynamics (same as Sociology 240).

**Psychology 250****Introduction to Abnormal Psychology**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Psychology 100/100H with a minimum grade of C.

Introduction to the commonly diagnosed psychological disorders. Includes psychophysiological disorders, anxiety, depression, substance abuse, sexual dysfunctions, schizophrenia, developmental, cognitive, and personality disorders. Emphasis is on identification, symptomatology, etiology, and methods of therapeutic intervention.

READING (READ)**Reading N50****Groundwork for Reading**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A reading course for students needing to build vocabulary and enhance reading comprehension. Recommended for students in English N50 or English for Multilingual Students 055. Not applicable to associate degree. Grade: Pass/No Pass only.

Reading N80**Fundamentals of Reading**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Instruction in basic reading skills including techniques for improving vocabulary and spelling, word attack skills, and reading comprehension. Not applicable to associate degree. Grade: Pass/No Pass only.

Reading N90**College Reading**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Instruction in vocabulary, comprehension, critical evaluation and reading rate. Grade: Pass/No Pass only.

Reading 091**Reading for Meaning-U.S. History**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduction to critical reading and development of background information and reading strategies needed for success in understanding texts, essays, and news articles relating to U.S. history and government. Grade: Pass/No Pass only.

Reading 096**Individualized Reading Skills**

Unit(s): 1.0

Class Hours: 48 Lecture total.

Individualized instruction in vocabulary, comprehension, critical evaluation, and reading rate. Grade: Pass/No Pass only.

Reading 102**Academic Reading**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Introduces a repertoire of reading strategies aimed at preparing students for comprehension of complex college-level reading material. Advanced reading strategies provide the foundation for the development of critical reading and the recognition of patterns of academic thought. Reading strategies for specific disciplines, including the social sciences, business, humanities and the arts, mathematics and the natural sciences are presented. Completion of or concurrent enrollment in English 061 recommended.

Reading 150**Critical Reading**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course addresses the relationship between critical reading and critical thinking, including emphasis on the development of critical reading and thinking skills that facilitate the interpretation, analysis, criticism, and advocacy of ideas encountered in academic reading. Completion of or concurrent enrollment in English 101 recommended.

SCIENCE (SCI)**Science 200****Environment of Man**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A biological and physical science introduction to environmental problems such as energy, resources, pollution, land use, population and food, including economic and political factors. A natural science elective (same as Biology 200 and Environmental Studies 200).

SIGN LANGUAGE (SIGN)**Sign Language 110****American Sign Language I**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This introductory course is designed to introduce students to American Sign Language (ASL) and fingerspelling as it is used within American Deaf culture. Instruction includes preparation for visual/gestural communication followed by intensive work on comprehension skills, modeling of grammatical structures, and general information about American Deaf culture. Sign Language 110 is equivalent to two years of high school ASL.

Sign Language 111**American Sign Language II**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Sign Language 110 with a minimum grade of C.

The second course in the study of American Sign Language (ASL) focuses on vocabulary development, comprehension skills, grammatical structures and practice in the receptive and expressive aspects of ASL, as well as continued exposure to American Deaf culture. It is designed for the student or professional interested in working and interacting with the Deaf community.

Sign Language 112**American Sign Language III**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Sign Language 111 with a minimum grade of C.

The third course in the study of American Sign Language (ASL) emphasizes ASL syntax, facial grammar, vocabulary, and fingerspelling enabling students to participate in more complex conversations with Deaf community members. This course enhances students' receptive and expressive skills in ASL. It is designed for the student or professional interested in working and/or interacting with the Deaf community.

Sign Language 113**Introduction to Interpreting for the Deaf**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Sign Language 112 with a minimum grade of C.

Introduction to and survey of basic theories, principles and practices of American Sign Language Interpreting and Transliterating for the Deaf. Explores the full spectrum of the roles and ethical responsibilities of professional sign language interpreters in a variety of settings. Provides for practice of expressive and receptive skills. Includes instruction on national testing standards and preparation for certification.

Sign Language 114**Classifiers, Fingerspelling, and Numbering**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Sign Language 111 with a minimum grade of C.

This course is designed to provide specialized instruction in the continued development of skills and application of expanded conceptualization of American Sign Language (ASL) classifiers, fingerspelling, and numbering concepts. Expressive and receptive techniques will be emphasized.



Sign Language 116 Perspective on Deafness

Unit(s): 3.0

Class Hours: 48 Lecture total.

This is an introductory course exploring the cultural, educational, linguistic, and audiological experiences of people who are deaf, hard of hearing, deaf/blind, and late-deafened in America. Students will be exposed to historical and current perspectives in trends, philosophies, ideologies, and the deaf community as a subculture of American society.

SMALL BUSINESS SEMINARS (SBSM)

Small Business Seminars 010 Starting a Business in Orange County

Unit(s): 0.2

Class Hours: 8 Lecture total.

An overview of what you need to know to start a business in Orange County. Topics addressed are legal structures, contracts, permits, licensing, and business planning. Grade: Pass/No Pass only.

Small Business Seminars 011 Developing a Business Plan

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to prepare a business plan that will aid a new business owner with start-up and financing needs and a current business owner that needs to implement changes. A well written business plan is a necessity to attract capital investment from lending institutions and venture capitalists. Grade: Pass/No Pass only.

Small Business Seminars 012 Business Financing and Recordkeeping

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to analyze the financial structure of your business, discover funding sources, and maintain financial records. Includes understanding financial statements, types and roles of financial institutions, the six C's of credit, accounting systems and government requirements. Grade: Pass/No Pass only.

Small Business Seminars 013 Franchising Opportunities

Unit(s): 0.1

Class Hours: 4 Lecture total.

How to become part of the franchised operations that account for \$1 trillion in annual U.S. sales. Includes how to investigate opportunities, the elements of a franchise, and what to look for and how to understand franchise documents. Grade: Pass/No Pass only.

Small Business Seminars 014 Tax Considerations for Small Business

Unit(s): 0.1

Class Hours: 4 Lecture total.

How to improve your tax situation by choosing the proper legal entity for your business. The primary focus will be on the five principle types of business entities in California: corporations, Subchapter S corporations, general partnerships, limited partnerships, and limited liability corporations. Grade: Pass/No Pass only.

Small Business Seminars 015 Insurance Considerations for Small Business

Unit(s): 0.1

Class Hours: 4 Lecture total.

How to protect your business and personal assets with the appropriate insurance. Includes how to locate a good insurance agent, the kinds of insurance you need, types of required insurance, and how to keep premiums low. Grade: Pass/No Pass only.

Small Business Seminars 016 Identifying Your Customers

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to identify your target market and avoid wasting time and money in your marketing efforts. Includes the creation of a marketing plan, how to utilize market research, and apply the 4 P's of marketing. Grade: Pass/No Pass only.

Small Business Seminars 017 Promoting Your Business

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to increase sales through a focused promotional plan to reach your target market. Includes how to use the promotional mix of advertising, public relations, direct marketing, sales promotions, and personal selling through the appropriate selection of media channels. Grade: Pass/No Pass only.

Small Business Seminars 018 Intellectual Property Rights

Unit(s): 0.1

Class Hours: 4 Lecture total.

How to identify the different types of intellectual property rights that exist in the U.S. and how they relate to your business. Includes patents, trademarks, copyrights, trade secrets and confidentiality/non-disclosure agreements. Grade: Pass/No Pass only.

Small Business Seminars 019 E-Commerce: Developing Your Web Site

Unit(s): 0.2

Class Hours: 8 Lecture total.

How to develop an effective web site to support and enhance your small business. Provides business owners the knowledge of the appropriate hosting, design, and content to meet their customer needs and reach their business objectives. Grade: Pass/No Pass only.

SOCIAL SCIENCE (SOCS)

Social Science 219 (C-ID SOCI 125)

Statistics and Probability

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 080 or 081 with a minimum grade of C (OR placement into Mathematics 219 on the Mathematics Level 3 Placement Exam and a course equivalent to Mathematics 080 or 081).

Beginning course in statistics. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics. Includes use of technology (same as Mathematics 219).

Social Science 219H (C-ID SOCI 125)

Honors Statistics and Probability

Unit(s): 4.0

Class Hours: 80 Lecture total.

Prerequisite: Mathematics 080 or 081 with a minimum grade of C (OR placement into Mathematics 219 on the Mathematics Level 3 Placement Exam and a course equivalent to Mathematics 080 or 081) AND a high school or college GPA of 3.0 or higher.

Enhanced format for the beginning course in statistics and probability, using a seminar approach, computers, individual research, and presentations. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics, with applications designed around the individual interests of students (same as Mathematics 219H).

SOCIOLOGY (SOC)

Sociology 100 (C-ID SOCI 110)

Introduction to Sociology

Unit(s): 3.0

Class Hours: 48 Lecture total.

The scientific study of human societies and behavior focusing on the process of social interaction, patterns of social inequality, and the influence of social institutions on individuals as members of social groups. Special emphasis provided to explain factors promoting social stability and social change.

Sociology 100H (C-ID SOCI 110)

Honors Introduction to Sociology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

A seminar-style, content-enriched course to provide a critical and extensive exploration of the sociological perspective, methods, and theories of social interaction, stability and change. Focuses on the importance of sociology for understanding individuals in a social context and provides a comprehensive understanding of and scientific way of thinking about society.



Sociology 112 (C-ID SOCI 130)
Relationships, Marriages, and Family Dynamics

Unit(s): 3.0

Class Hours: 48 Lecture total.

In-depth examination of the process of developing intimate relationships leading to committed partnerships and marriages with emphasis on effective communication techniques, understanding relationship dynamics, parenting, diverse family systems, and overcoming family stressors at each life stage.

Sociology 140 (C-ID SOCI 115)
Analysis of Social Trends and Problems

Unit(s): 3.0

Class Hours: 48 Lecture total.

An extensive survey of contemporary social trends and problems through sociological analysis concentrating on their causes, complexities, consequences, and possible solutions. Special emphasis will be placed on the problems in the U.S., with consideration of the global perspective.

Sociology 140H (C-ID SOCI 115)
Honors Analysis of Social Trends and Problems

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

A seminar-style, in-depth sociological analysis and critique of U.S. social trends and problems with an emphasis on contemporary and historical social policy with additional consideration of global perspectives.

Sociology 240 (C-ID PSY 170)
Introduction to Social Psychology

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Sociology 100 or Psychology 100 with a minimum grade of C.

An exploration of the interlocking dynamics of psychology and sociology focusing on the impact of social groups on individual and on other groups. Content includes self-development, interaction, attitudes, conformity, friendship, love, aggression, group dynamics (same as Psychology 240).

SPANISH (SPAN)

Spanish N51
Spanish for Public Personnel

Unit(s): 3.0

Class Hours: 48 Lecture total.

Designed for those needing basic Spanish conversation and vocabulary in a specific field of work, such as law enforcement, fire safety, health, and education. Includes clear and concise communication for emergency situations. Not applicable to associate degree.

Spanish 101
Elementary Spanish I

Unit(s): 5.0

Class Hours: 80 Lecture total.

Practice and integration of pronunciation, grammar, vocabulary, common idioms, listening, speaking, reading, and writing techniques for the expression of ideas orally and in writing. Introduction to Hispanic culture. Designated sections focus on skills for Spanish speakers. Spanish 101 is equivalent to two years of high school Spanish.

Spanish 101H
Honors Elementary Spanish I

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Enhanced and intensive practice and integration of pronunciation, grammar, vocabulary, common idioms, listening, speaking, reading, and writing techniques for the expression of ideas orally and in writing. Enriched introduction of Hispanic culture. Note: Some sections are designated for Spanish speakers. Spanish 101H is equivalent to two years of high school Spanish.

Spanish 102
Elementary Spanish II

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Spanish 101/101H or two years of high school Spanish with a minimum grade of C.

A college-level Spanish class focusing on further training in language skills providing avenues for the expression of ideas orally and in writing. Additional study of Hispanic culture. Designated sections focus on skills for Spanish speakers. Spanish 102 is equivalent to the third year of high school Spanish.

Spanish 102H
Honors Elementary Spanish II

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Spanish 101/101H or two years of high school Spanish with a minimum grade of C and a high school or college GPA of 3.0 or above.

Further enhanced and intensive training in language skills for the expression of ideas orally and in writing. Additional enriched study of Hispanic culture. Note: Some sections are designated for Spanish speakers. Spanish 102H is equivalent to the third year of high school Spanish.

Spanish 195A
Advanced Conversational Spanish

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Spanish 102/102H with a minimum grade of C.

Further development of conversational skills. Review of language structures as well as reinforcement of new vocabulary and idioms through discussions of reading selections dealing with historical and current events to deepen appreciation of Hispanic cultures.

Spanish 195B
Advanced Conversational Spanish

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Spanish 195A with a minimum grade of C.

Continuation of development of conversational skills. Provides avenues for the expression of ideas introduced in literary and current event readings through discussions and class presentations to deepen appreciation of Hispanic cultures.

Spanish 201
Intermediate Spanish I

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Spanish 102/102H or three years of high school Spanish with a minimum grade of C.

A college level Spanish class focusing on expansive review of usage and grammar, discussions of interpretive readings, conversation, and composition.

Spanish 201H
Honors Intermediate Spanish I

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Spanish 102/102H with a minimum grade of C and a high school or college GPA of 3.0 or above.

An enriched exposure of Hispanic history, culture and literature in a seminar setting. In-depth analysis of grammatical structures. Further use of argumentative oral strategies. Enhanced development of conversation and composition. Independent research by students to use/evaluate library and electronic information sources.

Spanish 202
Intermediate Spanish II

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Spanish 201/201H or four years of high school Spanish with a minimum grade of C.

A college-level Spanish class focusing on expansive review of usage and grammar; discussions in Spanish of interpretive reading materials; conversation and composition.



Spanish 202H
Honors Intermediate Spanish II

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Spanish 201/201H with a minimum grade of C and a high school or college GPA of 3.0 or above.

An enriched exposure of Hispanic history, culture, and literature in a seminar setting. In-depth analysis of grammatical structures. Enhanced development of conversation and composition. Further use of argumentative oral strategies.

Independent research by students to use/evaluate library and electronic information sources.

Spanish 212
College Business Spanish

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Spanish 202/202H with a minimum grade of C and three years of high school Spanish with a minimum grade of C.

A course designed to give intermediate level students a solid foundation in business vocabulary, basic business and cultural concepts, and a situational practice necessary to be successful in today's Spanish-speaking business world. The course is designed for students majoring in Spanish, International Studies, and International Business.

Spanish 213
College Spanish Composition

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Spanish 201 with a minimum grade of C or three years of high school Spanish with a minimum grade of C; concurrent enrollment in Spanish 201.

Writing of composition through discussions and interpretive readings.

SPECIAL SERVICES (SPEC)

Special Services N44
Reading Development for the Deaf

Unit(s): 0.5 - 3.0

Class Hours: 8-48 Lecture total.

Prerequisite: Student must be eligible for DSPS services from Deaf and Hard of Hearing Program and Services.

Reading comprehension development for the deaf or hard of hearing students. Includes assessment of current skills and the development of an individualized program of study with the goal upon completion of enrolling in the college's reading course sequence. Not applicable to associate degree. Open Entry/Open Exit.

Special Services N50A
English for the Deaf and Hard of Hearing

Unit(s): 0.5 - 3.0

Class Hours: 8-48 Lecture total.

Language function and composition for the deaf or hard of hearing student. Includes assessment of current skills and development of an individualized program of study with the goal of enrolling in the college English course sequence. Student must submit proof of audiologically verifiable hearing loss. Not applicable to associate degree. Open Entry/Open Exit.

Special Services N50B
English for the Deaf and Hard of Hearing

Unit(s): 0.5 - 3.0

Class Hours: 8-48 Lecture total.

Mechanics of the English language and composition for the deaf or hard of hearing students as they prepare to place into college level English courses. Includes continuing improvement of English comprehension skills and grammar in increasingly complex sentence structures, writing skills, vocabulary development, and disability related issues. Student must submit proof of audiologically verifiable hearing loss. Not applicable to associate degree. Open Entry/Open Exit.

Special Services N83
Career Exploration

Unit(s): 0.5

Class Hours: 8 Lecture total.

Designed to assist students in exploration of appropriate career areas. Includes vocational assessment, self-awareness, goal setting, job market outlook, individualized task analysis of jobs, career planning and job search techniques. Open to students with disabilities in the WorkAbility Program. Not applicable to Associates of Arts and Science degrees. Grade: Pass/No Pass only. Open Entry/Open Exit.

Special Services N84
Employment Preparation

Unit(s): 0.5

Class Hours: 48 Lecture total.

A comprehensive course designed to prepare students for the transition between school and employment. Includes identifying appropriate job/career goals, assessing personal strengths, developing skills to obtain employment such as resume writing and interviewing, and utilizing SCAN competencies for employment retention and advancement. Arranged schedule. Grade: Pass/No Pass only. Open Entry/Open Exit.

Special Services N91
Fundamentals of Cognitive Learning

Unit(s): 0.5 - 1.5

Class Hours: 24-72 Laboratory total.

Prerequisite: Verified brain impairment.

Fundamentals of Cognitive Retraining is designed for individuals who have sustained an acquired brain impairment and who are experiencing cognitive difficulties. Instruction focuses on improving attention and concentration, perceptual processing skills, and memory. Arranged schedule. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Special Services N92
Assistive Computer Technology Instruction

Unit(s): 0.5 - 2.0

Class Hours: 16 Lecture, 24 Laboratory total.

This course is intended for students with disabilities. Emphasis is on mastering appropriate assistive computer technologies and to provide instruction in Windows, Microsoft Office and Internet/E-Mail access. Not applicable to associate degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

Special Services N94
Intermediate Cognitive Retraining

Unit(s): 0.5 - 1.5

Class Hours: 24-72 Laboratory total.

Prerequisite: Verified brain impairment.

Intermediate Cognitive Retraining is designed for students who have sustained and acquired brain impairment. Instruction focuses on the use of compensatory memory strategies, utilizing critical thinking/problem solving skills and improving organizational skills. Arranged schedule. May be repeated. Grade: Pass/No Pass only.

Special Services N95
Cognitive Retraining - Academic Transition

Unit(s): 0.5 - 1.5

Class Hours: 24-72 Laboratory total.

Prerequisite: Verified brain impairment

Cognitive Retraining - Academic Transition is designed for students who have sustained an acquired brain impairment. Instruction focuses on utilizing and applying cognitive skills in the areas of reading, written language, and study skills strategies to achieve success in an academic program. Arranged schedule. May be repeated. Grade: Pass/No Pass only.



SPEECH-LANGUAGE PATHOLOGY ASSISTANT (SLPA)

Speech-Language Pathology Assistant 118 Introduction to Speech-Language Pathology Assisting

Unit(s): 1.0

Class Hours: 16 Lecture total.

Overview of the field of speech-language pathology, professional standards, legal and ethical issues, and scope of responsibilities of the speech-language pathologist and the speech-language pathology assistant in health care and educational settings.

Speech-Language Pathology Assistant 119 Speech-Language and Hearing Development Across the Life Span

Unit(s): 3.0

Class Hours: 48 Lecture total.

Study of normal speech, hearing, and language development across the life span. Topics will include differentiation of normal from disordered communication and communication development in bilingual populations.

Speech-Language Pathology Assistant 120 Speech-Language Pathology Clinical Management and Procedures

Unit(s): 2.0

Class Hours: 32 Lecture total.

Prerequisite: Speech-Language Pathology Assistant 118 with a minimum grade of C.

Organizational and functional skills required in the speech-language pathology workplace. Includes interdisciplinary and supervisory relationships, client and public interaction, safety issues, technical writing, data collection, record keeping, and computer applications.

Speech-Language Pathology Assistant 150 Observation of Speech-Language Pathology Clinical Practices

Unit(s): 0.5

Class Hours: 28 Laboratory total.

Prerequisite: Speech-Language Pathology Assistant 118 with a minimum grade of C and concurrent enrollment in Speech-Language Pathology Assistant 160.

Beginning clinical observation of practices and procedures required in speech-language pathology. Observation sites will be in both educational and medical settings.

Speech-Language Pathology Assistant 160 Introduction to Communicative Disorders And Treatment

Unit(s): 3.0

Class Hours: 48 Lecture total.

An overview of communication disorders, including classification, assessment and remediation of speech, language, swallowing, and hearing disorders in children and adults. Role of speech-language pathologist and audiologist in educational and medical settings.

Speech-Language Pathology Assistant 180 Speech-Language Pathology Screening Processes and Intervention Procedures

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Prerequisite: Speech-Language Pathology Assistant 120, Speech-Language Pathology Assistant 150, and Speech-Language Pathology Assistant 160 with a minimum grade of C.

Screening tools, processes and intervention procedures used for clients with communication disorders. Administration of screening tests and completion of protocols. Equipment utilized in therapeutic treatment.

Speech-Language Pathology Assistant 190 Speech-Language Pathology Assistant Clinical Field Work I

Unit(s): 2.0

Class Hours: 4 Lecture, 96 Laboratory total.

Prerequisite: Speech-Language Pathology Assistant 120, Speech-Language Pathology Assistant 150, and Speech-Language Pathology Assistant 160 with a minimum grade of C and Application to Department Coordinator required prior to enrollment; current negative TB clearance; fingerprinting and background check; current CPR and First Aid Certification and concurrent enrollment in Speech-Language Pathology Assistant 180.

Application of supervised clinical practice procedures as required of a speech-language pathology assistant in an educational setting.

Speech-Language Pathology Assistant 200 Adult and Geriatric Communication Disorders

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Speech-Language Pathology Assistant 160 with a minimum grade of C.

Speech, language, and hearing disorders experienced by the adult and geriatric populations. Assessment tools and treatment strategies used to treat acquired disorders such as adult aphasia, dysarthria, and hearing loss.

Speech-Language Pathology Assistant 250 Speech-Language Pathology Assistant Clinical Fieldwork II

Unit(s): 2.0

Class Hours: 4 Lecture, 96 Laboratory total.

Prerequisite: Speech-Language Pathology Assistant 180 and Speech-Language Pathology Assistant 190 with a minimum grade of C and Application to Department Coordinator required prior to enrollment; current negative TB clearance; fingerprinting and background check; current CPR and First Aid Certification.

Advanced application of clinical practice procedures in a clinical or medical setting by the speech-language pathology assistant under the supervision of a speech-language pathologist.

STUDY SKILLS (STDY)

Study Skills 091

Effective Study Techniques

Unit(s): 1.0

Class Hours: 16 Lecture total.

A short-term course designed to teach effective college study skills. Topics include time management, textbook study, lecture notetaking, test taking strategies, exam preparation. May be repeated. Grade: Pass/No Pass only.

Study Skills 109

College Learning Skills

Unit(s): 3.0

Class Hours: 48 Lecture total.

This course provides effective success strategies to enhance student self-development, academic, and lifelong learning skills for the college student. The techniques include: values, goal-setting, dealing with money, stress management, diversity, motivation, health, and time-management. Students learn personal growth methods and develop strategies to effectively deal with issues to ensure personal, educational, and career success.

Study Skills N96

Training for Tutorial Assistants

Unit(s): 0.5

Class Hours: 8 Laboratory total.

Designed to help develop those skills necessary to become an effective tutor. Focuses on a variety of factors relative to the tutorial relationship with emphasis on helping students help themselves. Not applicable to associate degree. Grade: Pass/No Pass only. Open Entry/Open Exit.

TV/VIDEO COMMUNICATIONS (TELV)

TV/Video Communications 009

Television/Video Communications Laboratory

Unit(s): 0.5

Class Hours: 24 Laboratory total.

Sign-in/out supervised work on television projects/production assigned in TV/Video Communications classes 110 or above or on independent projects. Completion of new assignments each semester. Accumulation of 24 hours earns 0.5 unit. Requires concurrent enrollment in courses 110 or above. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.



TV/Video Communications 010
Television/Video Communications Advanced Laboratory
 Unit(s): 0.5

Class Hours: 24 Laboratory total.

Sign-in/out supervised work on advanced television projects/production assigned in TV/Video Communications classes 110 or above or on independent projects. Completion of new and more advanced assignments each semester. Accumulation of 24 hours earns 0.5 unit. Requires concurrent enrollment in classes TV/Video Communications 110 or higher. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

TV/Video Communications 100
Introduction to Electronic Media: TV, Radio, Film, and the Internet
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Survey of historical development, impact, and business practices of TV, Radio, Film, and the Internet. Emphasizes career opportunities and basic studio operations.

TV/Video Communications 101
TV and Society: A Visual History
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Evolution and impact of TV programming as business and art form in American society. Development of a visual literacy and appreciation of television's various formats (sitcoms, Westerns, soaps, dramas, mini-series) through videotape viewings and guest speakers.

TV/Video Communications 103
History of Film to 1945
 Unit(s): 3.0

Class Hours: 48 Lecture total.

A survey course exploring film as an art form and developing appreciation of historical, artistic, and technical advances from 1890s to 1945.

TV/Video Communications 104
History of Film From 1945 to Present
 Unit(s): 3.0

Class Hours: 48 Lecture total.

A lecture/visual aids course exploring film as an art form and developing appreciation of historical, artistic, and technical advances.

TV/Video Communications 105
(C-ID JOUR 100)
Mass Media and Society
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Exploration of the history, effects, and role of mass media in U.S. society. Examines major media forms (TV, radio, film, newspapers, magazines, ads, the Internet) in our information-conscious culture.

TV/Video Communications 105H
(C-ID JOUR 100)
Honors Mass Media and Society
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: A high school or college GPA of 3.0 or above.

Enriched honors course of intensive exploration of historical impact and current influence of mass media (newspapers, TV, Internet, etc.). Uses critical thinking skills in seminar-setting to assess media's role in society.

TV/Video Communications 110
Introduction to Television Production
 Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Introduction to production of television programs and operation of studio and field equipment. Includes overview of production theory, terminology and procedures, as well as hands-on training in use of cameras, audio, lighting, and control room apparatus. Prior or concurrent enrollment in TV/Video Communications 100 recommended.

TV/Video Communications 112
Introduction to Video Editing and Postproduction
 Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Fundamental methods and techniques used to edit video for TV, film, Web and multi-media. Hands-on training in basic operation of Final Cut Pro digital non-linear editing system and software. Completion of TV/Video 110 or concurrent enrollment recommended.

TV/Video Communications 114
Advanced Video Postproduction
 Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: TV/Video Communications 112 with a minimum grade of C.

Advanced editing theory and techniques for television, film, Web and multi-media. Utilizes digital nonlinear video editing and special effects systems. May be repeated.

TV/Video Communications 115A
Single-Camera Production and Editing
 Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Fundamental approaches and techniques utilized in single-camera production for television, film, Web and multi-media. Hands-on training in operation of portable digital video and audio production equipment as well as lighting. Prior or concurrent enrollment in TV/Video Communications 110 and 112 recommended.

TV/Video Communications 115B
Advanced Single-Camera Production and Editing
 Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.
 Prerequisite: TV/Video Communications 120 with a minimum grade of C.

Continued development of knowledge and skills in single-camera production technology and practices. Emphasis on professional production standards and technical advancements in digital and High Definition TV. Individual assignments vary in subsequent semesters. Prior or concurrent enrollment in TV/Video Communications 110 and 112 recommended.

TV/Video Communications 120
Beginning Writing for TV, Film, the Internet and Corporate Video
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Designed to acquaint students with practical approaches to writing for television, motion picture, the Internet and corporate video. Emphasis on the development of story treatments and first drafts of scripts. Grade of C or better in English 101 recommended.

TV/Video Communications 121
Intermediate Writing for TV, Film, the Internet and Corporate Video
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: TV/Video Communications 120 with a minimum grade of C.

A course exploring professional requirements of the TV, film, Internet or corporate scriptwriter intended to strengthen fundamental writing skills in relation to their role in production, direction, and series development.

TV/Video Communications 123
Advanced Writing Projects for TV, Film, The Internet, and Corporate Video
 Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: TV/Video Communications 121 with a minimum grade of C.

Explores professional requirements for writing all TV, film, the Internet and corporate video genre. Individual projects will improve and extend students' writing skills and related techniques in production, direction, and series development. May be repeated.

TV/Video Communications 130
Principles of Broadcast News
 Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Introduction to broadcast journalism with emphasis on writing, editing, and technical production of media newscasts. Emphasizes both field and studio reporting. Prior or concurrent enrollment in TV/Video Communications 110 recommended.



TV/Video Communications 131
Beginning Broadcast News Workshop
 (Formerly Broadcast News Summer Workshop)

Unit(s): 2.0

Class Hours: 32 Lecture, 32 Laboratory total.

Group instruction for beginners in news writing, reporting, interviewing, and on-camera techniques for appearing on a student-produced cable newscast. Basic training also will include in-studio production techniques.

TV/Video Communications 132
Intermediate Broadcast News Workshop

Unit(s): 2.0

Class Hours: 32 Lecture, 32 Laboratory total.

Prerequisite: TV/Video Communications 130 or TV/Video Communications 131 with a minimum grade of C.

Group instruction for intermediate level students in the writing and preparation of news, entertainment, and sports segments for a weekly TV newscast. Participation in studio production work and on-camera appearance will also be emphasized.

TV/Video Communications 133
Advanced Broadcast News Workshop

Unit(s): 2.0

Class Hours: 32 Lecture, 32 Laboratory total.

Prerequisite: TV/Video Communications 132 with a minimum grade of C.

Group instruction for advanced level students in writing and preparation of news, entertainment, and sports segments for a weekly TV newscast. Emphasis placed on advanced reporting, camera, and editing techniques as well as producing and directing the news show.

TV/Video Communications 141
On-Camera Appearance

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Training and grooming for on-camera appearance and television announcing skills for business pros and those seeking careers in broadcasting and webcasting. Prior or concurrent enrollment in TV/Video Communications 130 or 143 recommended.

TV/Video Communications 142
Acting for Television and Film

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Techniques and disciplines of acting as applied to film and television production. Opportunity to practice and perform with emphasis on developing talents and skills required in acting for the screen (same as Theatre Arts 113).

TV/Video Communications 150
Producing and Directing for Television

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: TV/Video Communications 110 with a minimum grade of C.

Emphasizes production planning and preparation, aesthetics, budgeting, and working with a production team. Practical experience in producing and directing studio and remote productions. Different directing/producing assignments each semester. Prior or concurrent enrollment in TV/Video Communications 110, 112, and 115A recommended.

TV/Video Communications 161
Fundamentals of Audio for TV and Film

Unit(s): 1.5

Class Hours: 24 Lecture, 24 Laboratory total.

Introduction to the technical aspects of audio systems used for television production in both studio and field. Provides overview of sound characteristics and requirements. Emphasizes application and operation of audio control and recording devices. Prior or concurrent enrollment in TV/Video Communications 110 recommended.

TV/Video Communications 165
DVD Authoring

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Introduction to DVD technology and authoring process. Learn to operate digital video workstation and create professional DVD presentations that contain interactive menus. Prior or concurrent enrollment in either Television/Communications 110 and 112 is recommended.

TV/Video Communications 181

3-D Modeling

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Art 195 with a minimum grade of C.

Instruction in digital 3D modeling using 3D Studio Max from introductory to high-intermediate level. Course includes orientation to the software interface, lectures, and tutorials on how to build objects using primitives, modifiers, polygonal, and Spline modeling methods. Emphasis on practical application in games, architecture, and film (same as Art 196A).

TV/Video Communications 185
3-D Animation

Unit(s): 5.0

Class Hours: 48 Lecture, 96 Laboratory total.

Prerequisite: Art 196A or TV/Video Communications 181 with a minimum grade of C.

This course teaches how to use 3D animation software for the purpose of linear storytelling. Emphasis placed on the incorporation of the classic principles of animation and in learning the core components of the software that are necessary to know for effective visual communication (same as Art 197A).

TV/Video Communications 187
Electronic Graphics for Television, Advanced Techniques

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: TV/Video Communications 180 with a minimum grade of C.

Study and application of advanced methods and processes for the production of electronic graphics for TV. Concept and development of electronic graphics from storyboards through finished digital product.

TV/Video Communications 190
Introduction to Protocols

Unit(s): 1.5

Class Hours: 16 Lecture, 24 Laboratory total.

Fundamental features and applications of ProTools audio software used in post-production for television, film, and music. Orientation to functions, user interface, and actual operation of digital audio workstation. Techniques and aesthetics associated with creation of well-mixed soundtracks are addressed. Hands-on practice with digital recording and editing of soundtracks (same as Music 190).

TV/Video Communications 230A
Broadcast News Production

Unit(s): 4.0

Class Hours: 32 Lecture, 112 Laboratory total.

Prerequisite: TV/Video Communications 130 with a minimum grade of C.

Emphasizes actual live production of a weekly on-air cable newscast using latest newsgathering methodology and equipment. Prior or concurrent enrollment in TV/Video Communications 110 recommended.

TV/Video Communications 230B
Broadcast News Production

Unit(s): 4.0

Class Hours: 32 Lecture, 112 Laboratory total.

Prerequisite: TV/Video Communications 230A with a minimum grade of C.

Emphasizes actual live production of a weekly on-air cable newscast using latest newsgathering methodology and equipment. Assignments vary in subsequent semesters.



TV/Video Communications 230C Broadcast News Production

Unit(s): 4.0

Class Hours: 32 Lecture, 112 Laboratory total.

Prerequisite: TV/Video Communications 230B with a minimum grade of C.

Emphasizes actual live production of a weekly on-air cable newscast using latest newsgathering methodology and equipment. Assignments vary in subsequent semesters.

TV/Video Communications 230D Broadcast News Production

Unit(s): 4.0

Class Hours: 32 Lecture, 112 Laboratory total.

Prerequisite: TV/Video Communications 230C with a minimum grade of C.

Emphasizes actual live production of a weekly on-air cable newscast using latest newsgathering methodology and equipment. Assignments vary in subsequent semesters.

TV/Video Communications 260 Lighting Systems and Techniques for TV/ Video

Unit(s): 1.5

Class Hours: 24 Lecture, 24 Laboratory total.

Study of television lighting systems and techniques used in studio and location production environments. Includes hands-on training and overview of instruments, light control, and electrical power requirements. Prior or concurrent enrollment in TV/Video Communications 110 recommended.

TV/Video Communications 298

TV/Video Communications Practicum/ Internship

Unit(s): 3.0

Class Hours: 8 Lecture, 144 Laboratory total.

Supervised field work in broadcast writing, announcing, journalism, editing or production at professional sites. Skills assessed before placement to match abilities with employer needs. Concurrent enrollment or completion of one TV/Video Communications production class recommended. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

THEATRE ARTS (THEA)

Theatre Arts 100 (C-ID THTR 111)

Introduction to Theatre

Unit(s): 3.0

Class Hours: 48 Lecture total.

An introduction to the art and concepts of theatre through a study of modern and historical theories of dramatic structure, playwriting, directing, design, and acting. Attendance at live theatre required.

Theatre Arts 105

Theatre History 1

Formerly: Theatre Arts 105, A Cultural History of World Theatre

Unit(s): 3.0

Class Hours: 48 Lecture total.

The study of the history of theatre from the origins of theatre through the 19th century. The history and development of theatre and drama are studied in relationship to cultural, political, and social conditions of the time. Plays are studied for analysis of structure, plot, character, and historical relevance.

Theatre Arts 110 (C-ID THTR 151)

Acting Fundamentals

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

A study of acting involving the development of acting techniques, styles, and disciplines. Provides theory and practical experience with varied characterizations. Emphasizes individual growth and acquired skills necessary to the acting craft. A combination of Theatre Arts 110, 111, and 113 may be taken a maximum of four enrollments.

Theatre Arts 111 (C-ID THTR 152)

Intermediate Acting

Unit(s): 3.0

Class Hours: 48 Lecture, 16 Laboratory total.

Prerequisite: Theatre Arts 110 with a minimum grade of C.

Further study in the art of acting for the stage, investigating in-depth character study, role portrayal, special problems, and personal technique. Acting skills developed through use of exercises, monologues, and scenes from contemporary theatre. A combination of Theatre Arts 110, 111, and 113 may be taken a maximum of four enrollments.

Theatre Arts 113

Acting for Television and Film

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Techniques and disciplines of acting as applied to film and television production. Opportunity to practice and perform with emphasis on developing talents and skills required in acting for the screen (same as TV/Video Communications 142). A combination of Theatre Arts 110, 111, and 113 may be taken a maximum of four enrollments.

Theatre Arts 118

Fundamentals of Scene Study

Unit(s): 2.0

Class Hours: 32 Lecture, 32 Laboratory total.

Prerequisite: Theatre Arts 110 with a minimum grade of C.

A continued study for the beginning actor in the preparation and presentation of scenes from modern comedies, the plays of William Shakespeare, and plays from influential playwrights such as Anton Chekov and Henrik Ibsen. Students prepare scenes with partners for performance and critique. Recommended for acting majors.

Theatre Arts 131 (C-ID THTR 171)

Stagecraft

Unit(s): 3.0

Class Hours: 48 Lecture, 32 Laboratory total.

Introduction to technical theatre including basic principles of scenic design; construction, and painting; principles of lighting design, technology and process; plus stage and scene shop procedures. Preparation for on stage crew assignments. Concurrent enrollment in Theatre Arts 135 is recommended.

Theatre Arts 132 (C-ID THTR 175)

Stage Makeup

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Basic techniques and artistry of stage makeup and its relation to the total production. Covers history, aesthetics and design theory, color theory, materials, and application procedures for varied characterizations. Practical application of learned skills are applied to departmental productions.

Theatre Arts 133 (C-ID THTR 173)

Stage Lighting

Unit(s): 3.0

Class Hours: 32 Lecture, 48 Laboratory total.

Theory and practice of modern stage lighting including the properties and characteristics of varied conventional control systems and instruments. Techniques for proper installation, maintenance, and safety are included.

Theatre Arts 135 (C-ID THTR 192)

Technical Production

Unit(s): 1.0

Class Hours: 80 Laboratory total.

Supervised instruction and practical application in stage production techniques. Each repetition presents more advanced material. May be repeated.

Theatre Arts 150

(C-ID THTR 191)(C-ID THTR 192)

Theatre Production

Unit(s): 2.0

Class Hours: 16 Lecture, 96 Laboratory total.

Practical experience in performance production or technical production culminating in a series of public performances. Students desiring an acting role must audition. May be repeated.

**Theatre Arts 151 (C-ID THTR 191)****Showcase**

Unit(s): 3.0

Class Hours: 48 Lecture, 48 Laboratory total.

Prerequisite: Audition/interview required.

A study of the actor's process in the development of a character culminating in live staged performances. Auditions for all roles are required. May be repeated.

Theatre Arts 152 (C-ID THTR 191)**Tour Ensemble**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Prerequisite: Audition.

Acting ensemble providing performance experience for advanced students. Audition required. May be repeated.

Theatre Arts 153**Introduction to Directing**

Unit(s): 2.0

Class Hours: 32 Lecture, 32 Laboratory total.

Prerequisite: By interview only.

The study and application of directing theory, process, and technique which will culminate in a student-directed project production for public performance. Included are the fundamentals of script analysis, designer collaboration, character development, staging, actor coaching, and presenting.

Theatre Arts 154 (C-ID THTR 191)**Performance Ensemble**

Unit(s): 2.0

Class Hours: 32 Lecture, 32 Laboratory total.

Prerequisite: Audition/interview.

A study of the standards and expectations for an actor in auditions, casting, rehearsal, and performance in a departmental production. All students will be cast in one-act plays for public presentation. May be repeated.

Theatre Arts 155 (C-ID THTR 191)**Children's Theatre Ensemble**

Unit(s): 2.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Audition.

Intensive rehearsal and performance experience leading to an extended-run Children's Theatre production. Preparation for repertory theatre production experience. May be repeated.

Theatre Arts 156**Readers' Theatre Workshop**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

A study of acting involving the development of techniques, styles, and theories specific to performing with script in hand. Provides the student with extensive practical rehearsal experience with varied characters, leading to workshop production. May be repeated.

Theatre Arts 165**Introduction to Intelligent Lighting**

Unit(s): 2.0

Class Hours: 24 Lecture, 24 Laboratory total.

The fundamental study of intelligent lighting equipment to include a variety of state of the art lighting fixtures and programming/control consoles. Basic skills in control and programming are emphasized.

Theatre Arts 166A**Intermediate Programming**

Unit(s): 2.0

Class Hours: 16 Lecture, 48 Laboratory total.

Further development of the control and programming skills essential in the utilization of automated lighting equipment as required for employment. Develop an awareness of multiple automated control consoles and an awareness in lighting design.

Theatre Arts 167**Setup for Intelligent Lighting**

Unit(s): 1.0

Class Hours: 8 Lecture, 24 Laboratory total.

Study of the practical considerations for using intelligent lighting equipment. Included topics are safety precautions, setup, and operational procedures, control panel functions, basic service, and maintenance techniques.

Theatre Arts 168A**Computer Applications for Entertainment Lighting**

Unit(s): 2.5

Class Hours: 32 Lecture, 32 Laboratory total.

Study of varied software apps that assist in the creation, management and visualization of entertainment lighting projects.

Theatre Arts 170**Entertainment Technology Internship**

Unit(s): 1.0

Class Hours: 8 Lecture, 48 Laboratory total.

Supervised field work in one or more areas of backstage technologies including lighting, sound, and stagecraft. Skills are assessed before placement to match abilities with job requirements. May be repeated. Grade: Pass/No Pass only. Open Entry/Open Exit.

Theatre Arts 250**Advanced Theatre Production**

Unit(s): 2.0

Class Hours: 16 Lecture, 96 Laboratory total.

Practical experience at an advanced level in performance production or technical production culminating in a series of public performances. Students desiring an acting role must audition. May be repeated.

VIETNAMESE (VIET)**Vietnamese 101****Elementary Vietnamese I**

Unit(s): 5.0

Class Hours: 80 Lecture total.

A college level Vietnamese class focusing on pronunciation and grammar, basic vocabulary, common idioms, listening, speaking, reading, and writing techniques to provide avenues for the expression of ideas orally and in writing. Introduction to Vietnamese culture. Some sections designated for native Vietnamese speakers. Vietnamese 101 is equivalent to two years of high school Vietnamese.

Vietnamese 102**Elementary Vietnamese II**

Unit(s): 5.0

Class Hours: 80 Lecture total.

Prerequisite: Vietnamese 101 with a minimum grade of C.

A college level Vietnamese course focusing on further training in pronunciation and grammar, more extensive vocabulary development, conversation, and composition. Supplementary cultural readings. Vietnamese 102 is equivalent to the third year of high school Vietnamese.

WELDING (WELD)**Welding 008****Oxyacetylene-Arc Welding**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Technical knowledge and basic skills needed for occupational oxyacetylene and arc welding processes and applications. Students must furnish safety equipment (same as Automotive Technology 008 and Diesel 008).

Welding 020**Welding Laboratory**

Unit(s): 0.5 - 10.0

Class Hours: 24-480 Laboratory total.

Prerequisite: Concurrent enrollment in any welding course required.

Independent practice for advanced knowledge and skills development in specific areas of welding technology. Students furnish own equipment. Grade: Pass/No Pass only.

**Welding 025A****Intermediate Arc Welding Level I**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 008 with a minimum grade of C, and concurrent enrollment in Welding 020 and satisfactory completion of proficiency exam in arc welding skills.

This is a course designed to improve the student's previously acquired arc welding skills and prepare the student to pass the welding certification test. Emphasis is placed on welding in the vertical and overhead positions and the preparation of the test plates (1" steel), using the shielded metal arc welding process E-7018 (SMAW).

Welding 025B**Intermediate Arc Welding Level II**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 008 and Welding 025 with a minimum grade of C and satisfactory completion of proficiency exam in arc welding skills administered by SAC Welding Instructor.

This is a course designed to improve the student's previously acquired arc welding skills and prepare the student to pass the welding certification test. Student is introduced to the preparation of the 1" plate. This course will introduce the students to the Licensing Class D1.1. rules and regulations from the Department of Building and Safety with the city of Los Angeles. Emphasis is placed on welding in the vertical and overhead positions and the preparation of the test plates (1" steel), using the shielded metal arc welding process E-7018 (SMAW).

Welding 029A**Advanced Arc Welding Level I**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 008 with a minimum grade of C, and concurrent enrollment in Welding 020 and satisfactory completion of proficiency exam in arc welding skills.

Provides advanced manipulative skills and technical knowledge needed to pass a 1" plate guided bended test required for structural steel certification.

Welding 029B**Advanced Arc Welding Level II**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 029A with a minimum grade of C or reasonable completion of proficiency exam in arc welding skills administered by SAC Welding Instructor.

This is a course designed to advance the student's previously acquired arc welding skills and prepare the student to pass the welding certification test. Emphasis is placed on welding in the vertical and overhead positions and the preparation of the test plates (1" steel), using the shielded metal arc welding process (SMAW) E-7018 according to the American Welding Society rules and regulations D1.1 Code Book.

Welding 029C**Advanced Arc Welding Level III**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 029B with a minimum grade of C or reasonable completion of proficiency exam in arc welding skills administered by SAC Welding Instructor.

This is a course designed to improve and master the student's previously acquired arc welding skills to an advanced level and prepare the student to pass the welding certification test. Emphasis is placed on welding in the vertical and overhead positions and the preparation of the test plates (1" steel), using the shielded metal arc welding process E-7018 according to the American Welding Society rules and regulations. Students will take the D1.1 certification test at this level.

Welding 029D**Advanced Arc Welding Level IV**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 029C with a minimum grade of C or reasonable completion of proficiency exam in arc welding skills administered by SAC Welding Instructor.

This course provides level one instruction on the principles, equipment, welding techniques, mode of operations, and safety for (FCAW) wire flux cored arc welding used for structural steel. It is also designed to improve the student's formerly acquired arc welding skills and prepare the student to pass the welding certification test D1.1. Emphasis is placed on welding in the vertical and overhead positions and the preparation of the test plates (1" steel), using FCAW 2/32 wire (flux cored arc welding).

Welding 039A**Inert Gas Welding Level I**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 008 with a minimum grade of C and concurrent enrollment in Welding 020.

Gas shielded welding, TIG and MIG welding of aluminum, mild and stainless steel. Students to furnish protective safety devices.

Welding 039B**Inert Gas Welding Level II**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 039A with a minimum grade of C or reasonable completion of proficiency exam in inert gas welding skills administered by the SAC Welding Instructor.

Gas tungsten arc welding, (GTAW) and metal inert gas welding (MIG) of aluminum, mild and stainless steel. This is an advanced welding course using the gas tungsten arc welding (GTAW) process. This course is intended to further the skills of the student in this process. Special emphasis is placed on the horizontal position.

Welding 039C**Inert Gas Welding Level III**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 039B with a minimum grade of C or reasonable completion of proficiency exam in inert gas welding skills administered by the SAC Welding Instructor.

Gas tungsten arc welding (GTAW) and metal inert gas welding (MIG) of aluminum, mild and stainless steel. This is an advanced welding course using the gas tungsten arc welding (GTAW) process. This course is intended to give the students the skills necessary to pass the welding certification test in GTAW and MIG welding processes. The student is required to master the horizontal and vertical-up welding positions.

Welding 040A**Welding Certification Training Level I**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 008 with a minimum grade of C, and concurrent enrollment in Welding 020 or satisfactory completion of proficiency exam in arc welding skills.

This is an advanced course that will provide lecture and hands-on practice in welding in multiple areas of certification using SMAW (shielded metal arc welding) as well as in FCAW (flux cored arc welding). The student will focus on welding in the vertical and overhead position and the preparation of test plates.

**Welding 040B****Welding Certification Training Level II**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 040A with a minimum grade of C or reasonable completion of proficiency exam in arc welding skills administered by SAC Welding Instructor

This is an advanced course that will provide lecture and hands-on practice in welding in multiple areas of certification using SMAW (shielded metal arc welding) as well as in FCAW (flux cored arc welding) in the vertical and overhead positions. The student will focus on welding with the SMAW, FCAW and pipe in the 1G and 2G positions using E6010 electrode.

Welding 040C**Welding Certification Training Level III**

Unit(s): 3.0

Class Hours: 16 Lecture, 96 Laboratory total.

Prerequisite: Welding 040A with a minimum grade of C or satisfactory completion of proficiency exam in arc welding skills administered by SAC Welding Instructor.

This is an advanced course that will provide lecture and hands-on practice in welding in multiple areas of certification using SMAW (shielded metal arc welding) as well as in FCAW (flux cored arc welding) in the vertical and overhead positions. The student will focus on welding with the SMAW, FCAW and pipe in the 5G and 6G positions using E6010 electrode.

Welding 041A**Welding Certification Exam Preparation Level I**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Welding 008 or Welding 025 with a minimum grade of C.

This practical course is for advanced welding students. Instruction will cover design, prequalified base/filler material, procedure/welder qualifications, fabrication essentials, and testing as specified by American Welding Society (AWS D1.1) Structural Code specifications leading to Los Angeles City or AWS welding certifications.

Welding 041B**Welding Certification Exam Preparation Level II**

Unit(s): 3.0

Class Hours: 48 Lecture total.

Prerequisite: Welding 041A with a minimum grade of C.

This course is for advanced welding students. Instructor will cover prequalified base/filler material, procedure/welder qualification and testing as specified by American Welding Society (AWS D1.1) Structural Code specifications leading to Los Angeles City or AWS welding certifications.

Welding 053**Math/Blue Print Reading for Welders Level I**

Unit(s): 3.0

Class Hours: 48 Lecture total.

This class is designed to introduce the welding student to math and blue print reading and their applications for welders related to the welding industry. Emphasis will be placed on the practical problems in mathematic (for welders) measuring, instruments, area, volume, fractions, decimals, and metric system. This course will allow the student to read and interpret shop and field drawings and prints related to the welding industry.

WOMEN'S STUDIES (WMNS)**Women's Studies 101****Introduction to Women's Studies**

Unit(s): 3.0

Class Hours: 48 Lecture total.

A multicultural survey of social trends, issues, opportunities, and topics of special interest to women. Discussion includes sex, sex role stereotyping, family problems, work, law, gender equity, physical and mental health, feminism, rape, and women in arts, sciences, history, and business.

Women's Studies 102**Women in America: Work, Family, Self**

Unit(s): 3.0

Class Hours: 48 Lecture total.

An examination of women's roles in America. Emphasis on employment, family structures, and personal development. Topics include: historical patterns, socialization, opportunities, sexism, identity, growth, law, unionization, sexual harassment, media influence, family pressures, child care, guilt, stress.





CONTINUING EDUCATION





SANTA ANA COLLEGE / SANTIAGO CANYON COLLEGE INSTRUCTIONAL CALENDARS

CONTINUING EDUCATION DIVISION INSTRUCTIONAL CALENDAR 2014-2015

FALL SEMESTER 2014

August 18–22	Faculty projects
August 25	INSTRUCTION BEGINS
September 1	Labor Day – holiday
November 10	Non Instructional Day
November 11	Veterans Day – holiday
November 24–29	Thanksgiving – holiday
December 20	INSTRUCTION ENDS
December 22–January 13	Winter recess

SPRING SEMESTER 2015

January 14–16	Faculty projects
January 19	Martin Luther King’s Birthday – holiday
January 20	INSTRUCTION BEGINS
February 13–14	Lincoln’s Birthday – holiday
February 16	President’s Day – holiday
April 3	Cesar Chavez Day (observed)
April 6–11	SCE Spring recess*
May 25	Memorial Day – Holiday
June 4	OEC Commencement
June 5	CEC Commencement
June 6	INSTRUCTION ENDS

SUMMER SESSION 2015

June 29	INSTRUCTION BEGINS
July 3	Independence Day (observed)
August 8	INSTRUCTION ENDS

* could change to correspond with unified school district

JUNE • 2014

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JUNE • 2015

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JULY • 2015

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SCHOOL OF CONTINUING EDUCATION CENTENNIAL EDUCATION CENTER

**Santa Ana College School of Continuing Education Office
Centennial Education Center
2900 West Edinger Avenue
Santa Ana, CA 92704
714-241-5700**

Mission Statement

The Santa Ana College School of Continuing Education is a responsive community leader dedicated to adult student success through innovative educational programs and services. The School of Continuing Education prepares students to transition to college, improve language and workforce skills, increase civic involvement, and promote lifelong learning.

The Centennial Education Center (CEC) office is located at the corner of Fairview and Edinger, Santa Ana, near convenient bus stops. Office Hours: Monday through Thursday, 8:00 am–8:45 pm, Friday, 8:00 am–12:45 pm, Saturday, 8:00 am–11:45 am.

The Centennial Child Development Center provides services to Santa Ana College School of Continuing Education students' children between the ages of 2 and 5 based on space availability. Fees are based on a sliding scale and children need to be enrolled on a regular basis.

Centennial Education Center offers a wide range of classes. Because classes are offered on an open entry/open exit basis, students may register at any time throughout the year.

Student Outreach provides admissions information, ensures access and knowledge to campus resources, and actively promotes student services offered.

English as a Second Language (ESL) classes at CEC provide a vital service to students who have come to the United States from all over the world. Classes cover a wide range, from beginning English to high intermediate, instruction in pronunciation, and fluency building. Students acquire knowledge of survival skills, customs, and cultural information, as well as language skills necessary for employment and to function effectively in their day-to-day lives.

The Community Learning Center provides opportunities for adult learners to use language-learning computer software to practice English. Civics instruction is provided to enhance awareness of learners' community. One-on-one, small-group, and technology-based instruction are offered based on individual needs. Instructors help learners create individual learning plans and set educational goals.

Pronunciation classes at Centennial Education Center are designed to help students improve their listening and speaking skills. Students have an opportunity to listen to English in terms of sound patterns, vocabulary improvement, grammar practice, listening comprehension and vocationally oriented materials. Students both self-monitor and are monitored by the instructor, and follow a prescribed program in conjunction with other English classes.

The Adult Basic Education Program (ABE) is designed to assist students in strengthening their skills in reading, writing, mathematics, English usage and grammar. Fifteen (15) elective credits may be earned by students who pass the four exit exams. Once the ABE class has been successfully completed and a certificate awarded, the student is eligible to enter the Adult High School Subjects Diploma Program/GED program or college credit courses. The ABE program is also appropriate for students who want to become more employable.

The Adult High School Diploma Program is designed to accommodate adults with varied responsibilities, backgrounds, and needs who want to earn a high school diploma. Individualized instruction is provided so that students may take classes that fit their personal schedules, thus enabling them to work and complete credits at their own pace. Courses offered include: English fundamentals, reading and vocabulary skills, mathematics, science, United States history, and American government. Classes in GED preparation, including practice testing, are also offered at CEC. Weekend classes are offered at CEC for students who can only attend one day a week.

School of Continuing Education DSPS Learning Disabilities Program seeks to meet the needs of adults with disabilities in reading, math, spelling, visual and auditory perception, concentration, memory, and speaking. The program provides complete learning disabilities assessment after which an individualized educational plan is written and instruction leading to remediation is provided. Support services are provided, or recommended, as needed.

The Vocational Training Programs are designed to prepare students with the necessary skills needed to succeed in today's competitive workforce. Training focuses on various skills leading to the attainment of certificates in general office, executive assistant, computer repairs, childcare licensing, nursing aids, orderlies, attendants, and customer service. Students engage in teacher-facilitated instruction as well as independent laboratory instruction where they can learn at their own pace.



SANTA ANA COLLEGE SCHOOL OF CONTINUING EDUCATION GOALS AND PROGRAM OBJECTIVES

GOALS

Recognizing that learning is a lifelong process, the School of Continuing Education offers a variety of courses and programs to meet basic educational goals of adult learners. Programs and services offered by the School of Continuing Education are designed to help adults meet and carry out their immediate social, civic, and economic responsibilities. Continuing Education promotes lifelong learning as a vehicle to earn a high school diploma or GED, improve English skills, prepare for higher education, prepare for citizenship, learn new job skills, and become productive, active participants in American society.

COUNSELING

1. Provides counseling and guidance services to students.
2. Provides educational assessment services.
3. Provides orientation to a variety of programs and services.
4. Offers career vocational guidance.
5. Offers referrals to community agencies.
6. Provides personal counseling.

PROGRAM OBJECTIVES

Adult Basic Education

1. Teaches the basic academic and life skills necessary for success in today's world.
2. Provides students with a strong educational foundation that can be used as a basis for employment preparation, entrance into high school subjects, GED preparation, and college and vocational programs.

Adult High School Diploma Program

1. Enables students to obtain a high school diploma.
2. Provides coursework that enables students to meet proficiency requirements.
3. Encourages high school students to pursue higher education goals.

Child Care Licensing Program

1. Provides child care licensing programs so students can obtain employment or open their own child care home business.

Citizenship Preparation

1. Prepares students for the United States citizenship interview and examination process.
2. Teaches students about the rights and benefits of becoming U.S. citizens.

Developmentally Disabled Adults

1. Provides opportunities for the realization of individual potentials in the areas of education, work, and social interaction.

English as a Second Language

1. Develops English competency for basic community survival in non-native speakers.
2. Improves fluency levels for success in vocational, high school, and college credit programs.
3. Develops an understanding of American culture, values, and civic responsibility.
4. Provides students with a strong academic foundation and improves life skills that can be used as a basis for life long learning and continuation into adult basic education, high school subjects, GED preparation, college credit and/or vocational programs. Ultimately, these skills should assist students in obtaining better employment opportunities.

GED Test Preparation

1. Assists students in preparing for the GED examination.

Parent Education

1. Provides a variety of learning opportunities and instruction for prospective parents regarding the intellectual, physical, and emotional components of the birth process.
2. Provides theory, methods, and practical applications for rearing children.
3. Encourages parents to acquire additional child guidance and decision-making skills that are congruent with their values, children's developmental and educational needs, and society's demands.

Vocational Education

1. Provides short-term vocational training for entry-level positions.
2. Provides courses that are updated through input from business industry advisory councils and the mandates of occupational licensing agencies.
3. Provides vocational assessment, technology, training, and employability skills to prepare job seekers for the workforce.



INSTRUCTIONAL PROGRAMS AND STUDENT SERVICES

INSTRUCTIONAL PROGRAMS

Traditional, individualized and self-paced classroom instruction is offered in academic, vocational, and basic skills areas. Many classrooms at the larger sites utilize state of the art technology in instruction. Open entry/open exit format allows flexibility in planning. Day and evening classes are offered throughout the community, and some classes are offered only on Fridays and Saturdays.

Adult Basic Education

Provides adult learners the opportunity to build a strong foundation in reading, writing, language, English usage, grammar, mathematics, and communication skills, and to develop practical skills in the areas of technology training and employment preparation.

Citizenship

Provides basic knowledge of local, state, and federal government in preparation for the United States citizenship examination including language development within the context of history and government.

Community Learning Center

Provides opportunities for adult learners to use language-learning computer software to practice English. Civics instruction is provided to enhance awareness of learners' community. One-on-one, small-group, and technology-based instruction are offered based on individual needs. Instructors help learners create individual learning plans and set educational goals.

English as a Second Language

Instruction in English from beginning to intermediate levels is offered at various locations throughout the district for non-English speaking adults.

GED Preparation

Prepares adults to pass the GED high school equivalency exam.

Health and Safety Education

Consists of courses specifically designed to offer lifelong education to promote the health, safety and well-being of individuals, families and communities.

Adult High School Diploma Program

Provides all courses necessary to obtain a high school diploma through both traditional and individualized instruction methods.

Parent Education Program

Prepares students for their important role as a key factor in child health, development and success, from the prenatal stage through college preparation. Parent education courses emphasize intellectual, physical, and emotional aspects of parenting.

Students with Substantial Disabilities

Provides courses to assist developmentally disabled adults with basic academic skills and independent living skills.

Vocational Training Programs

Provides employment preparation focusing on general workforce preparation skills and specific vocational training including independent laboratory instruction and technology training.

STUDENT SERVICES

Counseling, Career Planning and Guidance

Provides career, academic, personal and vocational counseling to students in the School of Continuing Education. Counselors provide students with

- educational planning
- interpretation of assessments
- orientation to programs and services.

Child Development

Provides child development programs so students can pursue their education.

Disabled Student Programs and Services

Provides services and accommodations for students with disabilities who apply for service.

Learning Skills Program

Provides comprehensive assessment in perceptual skills, reading, mathematics, spelling, and writing for adults with learning disabilities.

Student Development Program

Provides activities for students which include student government experience, leadership training, conferences, and various student opportunities to improve their leadership skills.

Summer Sessions

Both day and evening classes are offered in the summer at various locations.

Testing

Comprehensive Adult Student Assessment System (CASAS) standardized testing is administered in all ABE, Citizenship, ESL and HSS classrooms. Students are expected to take a pre-test at the beginning of the program and post-test at the end. CASAS tests ensure compliance with the Workforce Investment Act under which these programs are funded.

Veteran's Service

Counseling and guidance for veterans is provided at SAC campus.

Veteran's Resource Center

Monday–Thursday	9 a.m. – 6 p.m.
Friday	9 a.m. – 12 p.m.
714-564-6050	



ADMISSIONS AND FEES

Who May Attend

Students who have graduated from high school or are over 18 years of age are eligible to enroll in continuing education classes. Students under 18 years of age who have not graduated from high school may be admitted by special approval of their high school district of attendance and approval of a continuing education administrator.

Where to Register

For the convenience of the student, registration for continuing education classes may be completed at the following locations:

Santa Ana Area

Santa Ana College School of Continuing Education

Centennial Education Center

2900 West Edinger Avenue, Room A-101
Santa Ana, CA 92704
714-241-5700

Santa Ana College

1530 West 17th Street
Santa Ana, CA 92706
Room B-8
714-564-6173

Parking Fee

Students enrolling in classes that meet at Santa Ana College's main campus are expected to pay a parking fee for campus parking or park in one of the two designated coin operated lots located on the south side of the campus. The parking fee is payable at the Student Business Office on the college campuses. Parking permits are required by the second week of the term.

No parking fee is required at Centennial Education Center or at other continuing education sites in the district.

Textbooks and Supplies

Textbooks for continuing education classes are available at:

Santa Ana College School of Continuing Education Bookstore Centennial Education Center

2900 West Edinger Avenue
Santa Ana, CA 92704

Bookstore Hours are:

Monday, Tuesday, Wednesday	9 a.m. – 7 p.m.
Thursday	9 a.m. – 6 p.m.
Friday and Saturday	Closed

Schedule of Classes

A schedule of classes prepared each semester includes general information, courses offered, hours, rooms, and instructor names. Schedules are available before registration each semester in each of the major continuing education sites and Rancho Santiago Community College District campuses. Registration is ongoing for those classes which have been designated open entry/open exit.

Open Enrollment

Unless specifically exempted by statute, every course wherever offered and maintained by the district is fully open to enrollment and participation by any person who has qualified as a continuing education student and meets the approved prerequisites for that course.

Student Identification Card

Each student may obtain a picture student identification card upon request. This card must be presented when using the Santa Ana College library and entitles the student to a reduced admission fee to college functions. Student identification cards may be obtained at: Santa Ana College, 1530 W. 17th Street, Santa Ana, 714-564-6965

Class Discontinuance Policy

Any class which does not have a total of at least 20 students enrolled by the beginning of instruction may be discontinued. Any class which does not maintain satisfactory attendance may be discontinued.



ADULT HIGH SCHOOL DIPLOMA PROGRAM

General Information

Learning should be a lifelong process if an individual is to have a full and rewarding life. Often, not having a high school diploma becomes a stumbling block for adults who would like to continue their education. Completing the high school diploma allows the individual to achieve greater goals. Educators in the School of Continuing Education know how difficult it is to return to education when the demands of employment, family and daily living take so much energy and time. With the busy adult in mind, the adult high school diploma program is designed to be flexible enough to fit the schedule of each individual. Rancho Santiago Community College District offers a comprehensive high school diploma program for adults who wish to continue their formal education.

Santa Ana College has maintained a High School Program since 1973. In 2009, the California Code of Regulations adopted minimum coursework and standards required by community colleges to award high school diplomas. Santa Ana College requested and received approval of its application for the new Adult High School Diploma Program in the summer of 2009 from the California Community College's Chancellor's office.

Diplomas are issued by the Rancho Santiago Community College District to students who complete the required course of study and demonstrate proficiency in basic skills. Graduation ceremonies are traditionally held each May or June for several hundred adults of all ages. Students may complete the diploma program at any time during the year and receive verification of completion of requirements at that time. Courses designed to meet high school graduation requirements are offered in both the traditional classroom setting or in open entry/open exit individualized learning programs. Elective credits can be earned in continuing education classes offered in a wide variety of locations throughout the community as listed in the schedule of classes published each semester.

Counseling and Guidance

Counselors meet with students and design programs of study on an individual basis so that students desiring a high school

diploma can achieve their individual educational goals. For students transferring from other high school or adult programs, counselors send for and evaluate previous transcripts to determine which courses meet the general education requirements and/or elective requirements. Counselors advise students of lifelong learning opportunities and assist students with postsecondary vocational and educational planning for degree or certificate programs at Santa Ana College School of Continuing Education.

These services are offered by a staff of professional counselors who are well informed as to the community resources available for students needing academic, vocational, personal, or financial assistance.

Registration

The Adult High School Diploma Program is available at Centennial Education Center and Santa Ana College. Students may obtain a schedule of classes and enroll at any time during the fall, spring, and summer semesters.

High School Graduation Requirements

To qualify for a high school diploma, the candidate must meet the following requirements:

Course of Study

The high school diploma requires a total of 160 credits taken from the following:

Subject Area	Credits
English Communication (a maximum of 10 credits of reading; must include at least one composition course)	40.0
Mathematics	20.0
Natural Sciences (must include both a biological and a physical science course)	20.0
Social and Behavioral Sciences (must include U.S. History, World Geography, World History, American Government, Economics and a Social Science elective)	30.0
Humanities	10.0
Electives	40.0
TOTAL	160.0

There may be additional requirements due to Title 5 changes for the 2014-2015 school year.

Petitions

A petition for graduation must be completed and submitted prior to the date students expect to complete diploma requirements.

Proficiency Requirements

Proficiency must be demonstrated in basic skills areas of reading, mathematics, and composition, according to the categories listed below:

- A. Reading.** All Rancho Santiago Community College District adult high school graduates will be required to demonstrate an eighth grade reading ability as measured by an approved district test or by passing the Reading Proficiency Development course final.
- B. Mathematics.** Students will be required to pass an approved district mathematics examination, or the Algebra 1A course finals.
- C. English Composition.** Students will be required to pass an approved district composition test or the Composition II course final.

Residency Requirement

To qualify for a high school diploma, a student must complete at least 20 coursework credits within the Rancho Santiago Community College District.

There are multiple sources of credit leading to the high school diploma. Sources are as follows:

1. Previous secondary schools
2. Trade or business schools
3. Armed Forces schools and/or programs
4. College credit courses
5. Correspondence courses
6. Adult school credit courses
7. Work experience credit
8. Consumer Skills Task Credit
9. Testing
10. Regional Occupational Program courses
11. Other approved sources of credit



Policies Governing Sources of Credit

A. Previous Secondary Schools

All credits earned in the 9th, 10th, 11th, and 12th grades recorded on an official transcript will be accepted except physical education credits and credits which are a duplication of course work for which credit was previously granted.

B. Trade or Business Schools

Courses taken in trade or business schools will be evaluated for possible high school credit equivalency. Courses in this category must be approved by the Office of Private Postsecondary Education.

It is the responsibility of the student to provide to the district transcripts, certificates, and/or other records requested for the evaluation and possible awarding of credit.

C. Armed Forces Schools and/or Programs

Credit may be granted for completion of training programs (armed services) and other valid educational experiences provided they have been certified by the United States Armed Forces Institute or by a statement on the service record, and provided they parallel 1) courses usually taught in secondary schools, and 2) vocational training courses with counterparts in civilian life.

The recommendations for credit for such programs and experiences are contained in three volumes published by the American Council on Education: The 1978 edition of the **Guide To The Evaluation of Educational Experiences In The Armed Services**, Vol. I-Air Force; Vol. II-Army; Vol. III-Coast Guard, Marine, and Navy.

This section is to be interpreted as including:

1. Officer and enlisted service school courses;
2. Off-duty classes offered by the armed forces and cooperating local institutions;
3. Correspondence courses offered by the United States Armed Forces Institute, the Marine Corps Institute, the Coast Guard Institute, and cooperating colleges and universities;

4. United States Armed Forces Institute courses and subject examinations. (Authorization for this procedure is contained in Title V, Section 99, part C, of the California Administrative Code.)

D. College Credit Courses

College units to be used for high school credits may be evaluated in a ratio of 3 college units to 10 high school semester periods of credit. The college should be notified in writing when college credits are utilized to meet high school requirements.

College credit equivalency recommended by the American Council on Education guides will be evaluated for high school credit on the same basis as other college credit courses.

E. Correspondence Courses

Courses taken by correspondence will be evaluated for possible high school credit equivalency. Courses in this category must be approved by the Office of Private Postsecondary Education.

It is the responsibility of the student to provide to the district transcripts, certificates, and/or other records requested for the evaluation and possible awarding of credit.

F. Adult School Credit Courses

Courses taken at adult schools will be evaluated for possible high school credit equivalency. Courses in this category must be approved by the California State Department of Education.

No credit will be allowed for physical education courses nor for courses from other adult schools if such courses are designated in the Rancho Santiago Community College District as "no high school credit."

It is the responsibility of the student to provide to the district transcripts, certificates, and/or other records requested for the evaluation and possible awarding of credit.

G. Work Experience Credit

Students may obtain credit for certain types of full-time work experience or for work experience that can be related to high school subject matter.

In order to obtain credit for work experience, students must provide written verification from those employers with whom they have worked for at least one year.

The Continuing Education administrators or counselors will evaluate the amount of work experience credit and the area of application. Evaluation will not be made for more credits than is necessary to meet graduation requirements and which the letters of verification justify. Combined work experience credit and consumer skills task credit may not exceed 40 credits.

Verification of work experience should be obtained by the student requesting from each employer, on official letterhead stationery, the following information:

1. Dates of employment.
2. Job description.
3. Nature of duties performed, indicating progress to more complex operations justifying a division into beginning and advanced skills.
4. Statements regarding successful performance.
5. Reason for termination of employment, if applicable.
6. The letter of self-employed students must be accompanied by a copy of the student's business licence or W-2 form.
7. Upon receipt of verification of all work experience which the student wishes to be considered for credit, evaluation will be made on the following basis:
 - a. Up to 10 credits will be given for the first year of successful work experience.
 - b. Up to 10 additional credits to a maximum of 40 will be granted for each additional full year of employment if the student has made successful progress each year on the job.
 - c. After the initial 10 credits for the first year, student may earn 5 credits for a period of six months employment, provided there is evidence of successful progress.



H. Consumer Skills Tasks Credits

Students may obtain elective credits for completion of various consumer skills tasks. Students should see their counselor concerning requirements for completion of the consumer skills tasks. Combined consumer skills tasks credit and work experience credit may not exceed 40 credits.

I. Testing

The district may award a maximum of 80 high school credits on the basis of district approved testing.

1. Mathematics Achievement Test (ITED)

Credit may be earned in mathematics by obtaining a satisfactory score on the math section of the Iowa Tests of Education Development Form X5. No other subtests are accepted for credit purposes. Ten semester credits will be awarded for a raw score of 14, provided these credits are not a duplication of previously earned math credits. (These 10 credits may be used to satisfy Math Fundamentals I and II requirements.) Fifteen semester credits will be awarded for a raw score of 20, provided these credits are not a duplication of previously earned math credits. (These 15 credits may be used to satisfy Math Fundamentals I and II requirements, and 5 elective credits.)

2. Subject Matter Credit by Examination

Credit by examination may be earned only for courses that are currently listed in the Rancho Santiago Community College District catalog and/or specifically designated by the division curriculum committee as courses that are eligible for credit by examination. Information for receiving this credit may be obtained from a counselor in Continuing Education.

J. Regional Occupational Program Courses

Credit will be determined upon receipt of an official secondary or community college transcript which indicates credit and grades as appropriate.

Guidelines for issuance of ROP credit when not on a unified school district transcript:

1. RSCCD will accept an official Grade Reporting Sheet from Central County Regional Occupational Program in lieu of a unified school district transcript provided it has a grade and a number of total hours.
2. The amount of credit issued is to be based on 16 clock hours per credit unit.
3. The maximum of 20 units toward electives will be accepted in this manner.
4. Students coming from outside the CCROP will have to validate their credits only through an official school district transcript.

K. High School Diploma Elective Credits

1. Learning Skills Credit

A maximum of 35 credits in Learning Skills will be allowed toward HSS graduation credit in the elective area, including work experience (see page 229).

2. Computer Learning Skills

High School elective credit for selected CTE/basic computer courses offered through the Business Skills Department can be awarded.

3. ESL Credit

Five elective High School Subjects credits can be awarded per level for Intermediate 1, 2, and 3 with passing scores on the ESL Post Tests and teacher recommendations. The passing scores are 75% for Intermediate 1 and 2 and 70% for Intermediate 3.

4. Adult Basic Education

Up to 15 HSS elective credits are granted when student successfully complete ABE reading, ABE math, and ABE writing.



STUDENT SERVICES AND SPECIAL NEEDS

Testing

Diagnostic placement tests are available at selected continuing education facilities for possible placement in the many available programs open to the students, such as English as a Second Language, Adult Basic Education, Learning Skills Program, and High School Subjects and GED.

Counseling and Guidance

Each School of Continuing Education student is provided with the unique opportunity to benefit from an individualized counseling and guidance program designed to help students improve the quality of their lives.

Students seek counseling for many reasons, including planning of educational programs, obtaining of information about employment and job skills, resolving personal and family problems, examining aptitudes, interests, and achievement, finding new careers and vocational directions, and learning to cope with cultural differences and life in a new country. Students enrolling in courses leading toward a high school diploma must see a counselor upon registering each term. Counselors are available on a walk-in basis at selected facilities. For more information about counselors' schedules or to arrange an appointment, please call 714-241-5720 or 714-241-5721 (Centennial Education Center).

The Student Transition Program (STP) was developed to help facilitate the process and bridge the transition from noncredit to credit classes at Santa Ana College. The program offers:

- classroom presentations
- application workshops
- financial aid workshops
- early registration to SAC

Child Development

Child development program centers are available at the Centennial Education Center, Santa Ana College, CDC East Campus. Arrangements may be made by calling 714-241-5739.

Developmentally Disabled Adult Program

Rancho Santiago Community College District is committed to providing all adult members of the community an opportunity to realize individual potentials. The college also identifies and responds to members with special needs.

Continuing Education is sensitive and responsive to the needs of a vital segment of our community—the developmentally disabled adult.

Instructors are assigned to special day centers and resource specialist centers and, in cooperation with staff, design individual education programs at selected locations.

Programs offered include Communication with the Deaf, basic education, independent living skills and employment preparation for the developmentally disabled adult.

Learning Skills Program

The primary goal of the Learning Skills Program is to provide support services necessary to enable Continuing Education students with learning disabilities to successfully participate in Adult Basic Education programs, High School Subjects, or regular college programs and activities.

The psychologist and Learning Disability Specialist will determine student potential and competency levels. An individualized educational plan containing goals and objectives will be written for each student, and support services will be provided if necessary. Student progress will be monitored on an on-going basis with reviews and amendments of the individualized plan as needed each semester.

Services and accommodations are provided for all qualified students with disabilities who apply for services.

Scholarships

Several scholarships are made available to Continuing Education high school graduates. Selection of scholarship recipients will be based upon recommendation of teachers and counselors, financial need, academic excellence, attendance, and minimum enrollment standards.

Santa Ana College Foundation Continuing Education Leadership and Achievement Scholarship

The Santa Ana College Foundation sponsors a scholarship program which recognizes both academic achievement and leadership among students earning the high school diploma from the Santa Ana College School of Continuing Education.

The scholarship awards will be based on academic excellence and demonstrated leadership capabilities. The selection committee will consider the applicants' overall qualifications.

Students must enroll for a **minimum** of six credits.

Minimum Eligibility Requirements:

1. Students who will graduate in the spring semester from Santa Ana College School of Continuing Education High School Program must complete three proficiencies and need no more than 20 credits to meet the graduation credit requirements at the time of scholarship filing date.
2. Complete a minimum of 20 credits in classes within the Rancho Santiago Community College District.
3. A 3.5 GPA or better for all units completed at Rancho Santiago Community College District. (Other high school grades will be considered for qualification; however, the 3.5 minimum GPA will only be computed on grades received in Rancho Santiago Community College District.)



POLICIES GOVERNING STUDENTS

A. Attendance

A student may be dropped from the roster and required to re-enroll upon returning if the following absences occur:

1. Day Classes: two weeks, or five days in succession.
2. Evening Classes: four class meetings.
3. High School Subjects/Programmed Instruction: two weeks.

Note: Some courses may have different requirements of attendance. Please refer to program guidelines.

B. Grading Standards/Procedures

A	Superior	4 grade points per NC unit
B	Above Average	3 grade points per NC unit
C	Average	2 grade points per NC unit
D	Less Than Satisfactory	1 grade point per NC unit
F	Fail	0 grade points (but counted in GPA)
P	Pass	0 grade points
W	Withdrawal	0 grade points
CIP	In Progress	0 grade points
SP	Satisfactory Progress	
NP	No Measurable Progress	
COM	Completed	

C. Procedures for Student Complaints Regarding Grades

1. Education Code 76224 states:

“When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor for the course; and the determination of the student’s grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetence, shall be final.”

2. Procedure

- a. Student shall meet with instructor to discuss grade.
- b. If the issue is not resolved, and the student believes that the grade is based on mistake, fraud, bad faith or incompetence (EC 76224), an appeal in writing may be made to the Dean-Continuing Education.

Forms of written appeal may be found in the office of the Area Dean of Instruction and Student Services.

- c. The student may be requested to set up an appointment with the Dean-Continuing Education to discuss the written complaint.
- d. The Dean-Continuing Education will review the allegations and may consult with the instructor.
- e. The Dean-Continuing Education will review the issue and will notify the student and instructor in writing of the decision.
- f. The decision of the Dean-Continuing Education is final.

D. Complaint Procedures for Students

Students may file a complaint when they believe they have been deprived of a right granted to students by the Board of Trustees in any of the policies or regulations of the Rancho Santiago Community College District.

The purpose of these complaint procedures is to resolve differences as fairly and expeditiously as possible while preserving the rights of students and staff members.

1. Definitions

Days: number of days refers to the days when the District offices are open.

Committee: Continuing Education Student Complaint Committee.

2. Procedure

- a. Students shall first confer with the staff member who took action or made the ruling to which they object no later than ten days following the event which prompted the complaint.

The Area Dean of Instruction and Student Services or designee will assist the student in arranging an appointment with the staff member.

- b. If the difference is not satisfactorily resolved, the student shall confer with the staff member’s supervisor.

The Area Dean of Instruction and Student Services or designee will assist the student and staff member’s supervisor.

- c. If the complaint is unresolved, the student may file a written statement setting forth the nature of the complaint on the prescribed form with the Area Dean of Instruction and Student Services no later than ten days after conferring with the staff member’s supervisor.

- d. The complaint form shall be completed in full and shall include a full description of the complaint, times, dates and pertinent facts, and the remedy sought by the student.

A Student Complaint-Staff Response form will be sent to both the staff member and supervisor for completion.

- e. The Area Dean of Instruction and Student Services shall forward the completed forms to the Continuing Education Student Complaint Committee chairperson for review and recommendation.

The committee shall have the power to make an appropriate investigation of the complaint and shall state the findings and make a recommendation.



- f. If the complaint is sustained by the committee, it will recommend appropriate action for relief of the complaint and communicate this in writing to the staff member to whom the complaint was directed. If the staff member accepts the recommended action, and if the student who filed the complaint is satisfied with the action, the complaint shall be considered resolved and closed.
- g. If the findings of the committee do not sustain the complaint, the committee shall communicate this finding in writing to the student who filed the complaint. If the student accepts this finding, the complaint shall be considered resolved and closed.
- h. If no resolution of the complaint is obtained under (f.) or (g.) above, the Area Dean of Instruction and Student Services shall forward the complaint together with findings of the committee to the Chancellor for review and decision.
- i. If this decision does not resolve the complaint in the opinion of the student, the Chancellor shall present the case to the Board of Trustees with the findings and recommendations. If the Board finds that the complaint is invalid, the Chancellor's recommendation shall stand in final resolution. If the Board finds that the complaint is valid, it shall instruct the Chancellor as to how the complaint shall be resolved, and the Chancellor shall implement the Board's decision.

E. High School Diploma Students

1. Grade Reports: In-class progress is reported to the student in a number of ways. Tests are often given to show individual student progress. In high school credit classes, a progress form is issued to each student as credit is completed, and copies are given to the counselors and the appropriate Continuing Education office for recording.
2. Cumulative Records: The district will maintain cumulative records on each current high school diploma student. These records may contain pertinent information necessary to aid students in educational planning. Placement

tests follow-up, interest inventories, and other data contained in the cumulative record will be available for review by the student upon request.

- a. Student Record Confidentiality: Under the guidelines of the Family Educational Rights and Privacy Act of 1974, student records are confidential, and privacy is to be scrupulously maintained.
- b. Right to Review and Challenge Records: Under the provisions of the U.S. Department of Health, Education and Welfare, students have the right to inspect and review any of the following files:
 - admissions/records
 - data processing
 - financial aids
 - placement
 - veterans

After review and exploration, students may challenge any information relating to them if they believe information to be inaccurate, misleading, or otherwise in violation of their rights of privacy or other rights. Forms for challenge are available in the Area Dean of Instruction and Student Services office.
3. Residency
 - a. Definition: Course work taken in any part of the Rancho Santiago Community College District Continuing Education Program.
 - b. Requirements: Any student must fulfill a twenty semester unit period of residency within the above-stated definition in order to qualify for potential granting of the adult high school diploma from the Rancho Santiago Community College District.
4. Charge For Transcripts: The first two transcripts will be issued without charge. A charge will be assessed for each additional transcript after the first two.

F. High School Petition Students

Secondary school students who wish to take course work in Rancho Santiago Community College District Continuing Education and have it transferred to another school **must present a completed Petition for Registration in order to be considered for admission.**

Failure to comply fully with all conditions listed on the form may result in the immediate revocation of the petition and dismissal from Continuing Education classes.

1. Grading and Transfer of Credits: Students must satisfactorily complete all course requirements including exams, projects, papers and attendances before credit or grades can be issued. **Students are responsible for planning schedules and progress so as to earn credits in time to meet graduation deadlines in other school districts.**
2. Books and Supplies: Students must provide textbooks and supplies required for the classes in which enrolled.
3. Conduct: Student conduct must be productive, responsible and courteous at all times. Unacceptable behavior may result in the immediate revocation of this petition and dismissal from class. Unacceptable behavior includes, but is not limited to, excessive talking; noncompliance with rules; failure to follow instructor directions; falsification of records; cheating or assisting others to cheat; destruction or theft of school property; disruption of classes; violence; or being under the influence of drugs or alcohol.

G. High School Students Taking College Credit Classes for High School Diploma Credit

1. This program represents a cooperative venture between Rancho Santiago Community College District, neighboring high schools and the School of Continuing Education.
2. Students who are over eighteen years of age and have not graduated from high school may take Rancho Santiago Community College District courses for high school credit. Students will be admitted to those programs that have space available upon recommendation of the Area Dean-Continuing Education or designee.
3. Students under the age of eighteen who are high school students may receive high school or college credit for courses, but must also attend a minimum day at the high school. Students will be admitted to those programs that have space available upon recommendation of the high school principal or designee.
4. Repeating a course already passed will result in a credit-only grade—not a letter grade.



5. If a student elects to receive high school credit for work taken at the college, the decision must be made prior to registration. College credit for that work may not be received at a later time.
6. Enrollment in, and completion of, course work in the Rancho Santiago Community College District credit division can also satisfy the residency requirement of the Continuing Education High School Diploma Program.

H. Special Rules, Regulations and Student Obligations

Because of special program characteristics, the following programs must adhere to special rules, regulations, and student obligation beyond the **Standard Guidelines for Student Conduct** adopted by the Rancho Santiago Community College District. Students enrolled in any of the following programs are obligated to perform within those special program guidelines in order to maintain class attendance: Apprenticeship; Service-Employment-Redevelopment (SER); and any other community-based organization or governmental agency with which the Rancho Santiago Community College District cooperates in a program offering.

I. Family Education Rights and Privacy

As required under the provisions of the Family Education Rights and Privacy Act of 1974, the Rancho Santiago Community College District will make public without student consent only certain directory information. This information consists of the following: a student's name; city of residence; a major field; participation in officially recognized activities and sports; weight, height, and age if a member of an athletic team; dates of attendance; degree and awards received; and the most recent previous educational institution or agency attended by the student.

A student may request the Admissions and Records Office to withhold this information. Such request must be in writing and submitted each semester.

J. Right to Review and Challenge Records

Students have the right to inspect and review any of the following files which relate directly to them: 1) admissions/records; 2) data processing; 3) financial aids; 4) placement; 5) veterans; and 6) division/department, if such files are maintained as official files rather than individual files. Request forms are avail-

able in the office of the Area Dean of Instruction and Student Services.

After review and explanation, students may challenge any information relating to them if they believe the information to be inaccurate, misleading, or otherwise in violation of their rights of privacy or other rights. Any student wishing to exercise this right of challenge shall inform the Area Dean of Instruction and Student Services, or the Dean-Admissions and Records.

If students wish, copies of materials contained in the files subject to their review will be provided at a cost of \$1.00 for the first copy of any document and .10 for each additional copy.

A log or record of persons or organizations requesting information or receiving information on the student will be maintained in the area where the records are stored.

District staff or other professionals who have a legitimate educational interest such as counseling and carrying out the normal operations of the educational program have access to student records.

Any student has the right to file complaint with the U.S. Department of Health, Education and Welfare concerning alleged failure of the institution to comply with provisions above or Section 438 of the General Provision.

K. Use of Public School Facilities for Adult Classes

1. **Alcoholic Beverages and Controlled Substances:** Both by policies instituted by local Boards of Education (Garden Grove Unified School District, Orange Unified School District, Rancho Santiago Community College District and Santa Ana Unified School District) and California State Law specifically prohibit possession of alcoholic beverages and controlled substances on school premises at any time, by any person, regardless of age. Regulations also prohibit use of alcoholic beverages at school events, whether on or off the campus, or the appearance at school events while under the influence of alcoholic beverages and/or controlled substances. The penalty for violation of these regulations is immediate suspension from school, followed by expulsion, if imposed by the Board of Trustees. Additional penalties may be imposed by law enforcement agencies.

2. **Smoking:** Provisions of the Uniform Fire Code, Article 29, Section

29.06, Smoking Activity on School Property, state:

"It shall be unlawful for any person or persons to engage in any smoking activity or to possess any flaming or glowing object or cause to be lighted any substance in any classroom or on school property at any time except in areas authorized by the local Board of Education."

The only areas authorized for smoking are outside the school buildings. There is to be **No Smoking** by anyone in any of the classrooms at any time. Proper containers are provided in the smoking areas for disposal of cigarettes.

3. **Food and Beverages:** Food and beverages are not to be brought into the classrooms at any time. Proper containers are provided for disposal of trash in designated areas.



NONCREDIT INSTRUCTIONAL PROGRAMS AND COURSES

Continuing Education courses are listed by subject on the following pages. Course numbers are listed at the beginning of each course title.

Open entry/open exit courses are noted in the course descriptions. Students may enroll at any time in these courses and begin class immediately. Students progress at their own rate and may exit from the class at any time upon satisfactory completion of the required work.

In other courses, class hours refer to the number of hours that the class is scheduled to meet per week during a term.

All credits listed are high school credits. In traditional courses, students earn credits by satisfactorily completing the course. In open entry/open exit courses, students earn credits by meeting individual competency-based objectives.

Some noncredit programs offer a sequence of courses leading to a certificate. The class schedule should be consulted for current offerings.

DIPLOMA/CAREER DEVELOPMENT & COLLEGE PREPARATION CERTIFICATES

ADULT SECONDARY EDUCATION PROGRAM:

Adult High School Diploma Program	Page 262
Secondary Education (GED Test Preparation) Certificate of Completion	Page 262

CAREER AND TECHNICAL EDUCATION PROGRAM (SHORT-TERM VOCATIONAL):

Childcare Workers Certificate of Completion	Page 265
Computer Maintenance And Repair Workers Certificate of Completion	Page 266
Customer Service Representative Certificate of Completion	Page 265
Executive Secretary/Administrative Assistant Certificate of Completion.	Page 266
General Office Clerk Certificate of Completion	Page 265
Paraprofessional Mental Health Worker Certificate of Completion.	Page 265

ESL PROGRAM:

Academic ESL Beg-Int A Certificate of Completion	Page 262
Academic ESL Beg-Int B Certificate of Completion	Page 262
Academic ESL Int A Certificate of Completion	Page 262
Academic ESL Int B Certificate of Completion	Page 262
Academic ESL Int C Certificate of Completion	Page 262
Academic ESL Int D Certificate of Completion	Page 263
Communication ESL Beg A Certificate of Completion.	Page 264
Communication ESL Beg B Certificate of Completion.	Page 264
Communication ESL Intro A Certificate of Completion.	Page 263
Communication ESL Intro B Certificate of Completion.	Page 263
Communication ESL Int A Certificate of Completion.	Page 264
Communication ESL Int B Certificate of Completion.	Page 264
Communication ESL Int C Certificate of Completion.	Page 265
Communication ESL Int D Certificate of Completion	Page 265
Communication ESL Transitioning A Certificate of Completion.	Page 264
Communication ESL Transitioning B Certificate of Completion.	Page 264
Vocational ESL A Certificate of Completion	Page 263
Vocational ESL B Certificate of Completion	Page 263
Vocational ESL C Certificate of Completion	Page 263



ADULT HIGH SCHOOL DIPLOMA PROGRAM

The sequence of courses in the High School Subjects and Adult Basic Education programs is designed to provide a strong foundation of basic skills ranging from elementary levels through secondary subjects, with the purpose of preparing students to earn a high school diploma, obtain employment, pursue vocational training and better job opportunities, and to be prepared to continue into college credit level programs.

Core Courses:	Units
HSS English (HSENG), HSS Reading (HSREAD)	40
HSS Math (HSMTH)	20
HSS Natural Sciences (HSSCI)	20
HSS Social Sciences (HSSOC)	30
HSS Arts (HSART)	10
Electives	40
TOTAL	160

Electives:

Adult Basic Education 009, 018, 044, 046; Home Economics 520; Health & Safety 877;

HSS General 010, 032, 144, 229, 770; Study Skills 221, 222; English 040, 065, 066, 067, 068, 096, 098; Reading 089, 093, 094; Math 140, 154, 155, 158, 159, 163, 164, 165, 166, 167, 172, 173; Science 170, 171, 180, 185, 186, 188, 189, 190, 191, 192, 193, 196, 197, 198; Social Science 215, 223, 224, 225, 228, 231, 232; Arts 500, 601, 828, 837; Leadership 090, 092, 093, 094; Other 740, 742, 743, 744, 749, 875.

SECONDARY EDUCATION (GED TEST PREPARATION) CERTIFICATE OF COMPLETION

Courses in ABE lead to the GED Test Preparation class, which prepares students for the reading, writing, and math skills necessary for the achievement of the official GED Certificate. The GED Certificate is a nationally recognized certificate which is equivalent to a high school diploma and prepares students for other higher education.

To obtain this certificate, take two courses.

Core Courses:

GED Studies 031, GED Test Preparation

Choose 1:

Adult Basic Education 023, Adult Basic Education Reading
Adult Basic Education 024, Adult Basic Education Writing
Adult Basic Education 025, Adult Basic Education Math

ACADEMIC ESL BEG-INT A CERTIFICATE OF COMPLETION

This combination of courses is designed to help students prepare for transitioning to Adult Basic Education courses (ABE), High School courses, GED Preparation courses, and college courses.

To obtain this certificate, take two courses.

ESL 703, Academic ESL Beginning 3

ESL 711, Academic ESL Intermediate 1

ACADEMIC ESL BEG-INT B CERTIFICATE OF COMPLETION

This combination of courses is designed to help students prepare for transitioning to Adult Basic Education courses (ABE), High School courses, GED Preparation courses, and college courses.

To obtain this certificate, take two courses.

ESL 703, Academic ESL Beginning 3

ESL 711, Academic ESL Intermediate 1

Choose 1:

ESL 120, ESL Civics

ESL 140, VESL Childcare Educators

ESL 394, ESL Writing A

ESL 398, Community Learning Center

ESL 530, American English Pronunciation

ESL 570, Conversation 1

ACADEMIC ESL INT A CERTIFICATE OF COMPLETION

This combination of courses is designed to transition students to Adult Basic Education courses (ABE), High School courses, GED Preparation courses, and college courses.

To obtain this certificate, take two courses.

ESL 712, Academic ESL Intermediate 2

ESL 713, Academic ESL Intermediate 3

ACADEMIC ESL INT B CERTIFICATE OF COMPLETION

This combination of courses is designed to transition students to Adult Basic Education courses (ABE), High School courses, GED Preparation courses, and college courses.

To obtain this certificate, take two courses.

Choose 1:

ESL 712, Academic ESL Intermediate 2

ESL 713, Academic ESL Intermediate 3

Choose 1:

ESL 120, ESL Civics

ESL 140, VESL Childcare Educators

ESL 395, ESL Writing B

ESL 398, Community Learning Center

ESL 490, Advanced Writing and Grammar Review

ESL 530, American English Pronunciation

ESL 580, Conversation 2

ACADEMIC ESL INT C CERTIFICATE OF COMPLETION

This combination of courses is designed to transition students to Adult Basic Education courses (ABE).

To obtain this certificate, take two courses.

Choose 1:

ESL 711, Academic ESL Intermediate 1

ESL 712, Academic ESL Intermediate 2

ESL 713, Academic ESL Intermediate 3

Choose 1:

ABE 009



ACADEMIC ESL INT D CERTIFICATE OF COMPLETION

This combination of courses is designed to transition students to High School courses and GED Preparation courses.

To obtain this certificate, take two courses.

Choose 1:

ESL 711, Academic ESL Intermediate 1
 ESL 712, Academic ESL Intermediate 2
 ESL 713, Academic ESL Intermediate 3

Choose 1:

HSRDG 089, Reading Proficiency Development
 HSRDG 093, Building Reading Skills 1

VOCATIONAL ESL A CERTIFICATE OF COMPLETION

This combination of courses is designed to help students communicate successfully in an English speaking workplace.

To obtain this certificate, take two courses.

ESL 510, VESL: English for Work 1
 ESL 520, VESL: English for Work 2

VOCATIONAL ESL B CERTIFICATE OF COMPLETION

This combination of courses is designed to help beginning ESL students communicate successfully in an English speaking workplace.

To obtain this certificate, take two courses.

ESL 510, VESL: English for Work 1

Choose 1:

ESL 405, ESL/Family Literacy Beginning 2
 ESL 420, Beginning ESL 2
 ESL 407, ESL/Family Literacy Beginning 3
 ESL 430, Beginning ESL 3
 ESL 703, Academic ESL Beginning 3
 ESL 398, Community Learning Center
 ESL 570, Conversation 1
 ESL 394, ESL Writing A

VOCATIONAL ESL C CERTIFICATE OF COMPLETION

This combination of courses is designed to help intermediate ESL students communicate successfully in an English speaking workplace.

To obtain this certificate, take two courses.

ESL 520, VESL: English for Work 2

Choose 1:

ESL 398, Community Learning Center
 ESL 120, ESL Civics
 ESL 140, VESL Childcare Educators
 ESL 394, ESL Writing A
 ESL 395, ESL Writing B
 ESL 398, Community Learning Center
 ESL 530, American English Pronunciation
 ESL 570, Conversation 1
 ESL 580, Conversation 2
 ESL 490, Advanced Writing and Grammar Review
 ESL 408, ESL/Family Literacy Intermediate 1
 ESL 460, Intermediate ESL 1
 ESL 711, Academic ESL Intermediate 1
 ESL 409, ESL/Family Literacy Intermediate 2
 ESL 470, Intermediate ESL 2
 ESL 712, Academic ESL Intermediate 2
 ESL 480, Intermediate ESL 3
 ESL 713, Academic ESL Intermediate 3

COMMUNICATION ESL INTRO A CERTIFICATE OF COMPLETION

This entry-level combination of courses is designed to help students begin to communicate in everyday life situations they will encounter at home, at school, at work and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 393, Introduction to ESL Family Literacy
 ESL 399, ESL Literacy

Choose 1:

ESL 401, ESL/Family Literacy, Beginning 1
 ESL 410, Beginning ESL 1

COMMUNICATION ESL INTRO B CERTIFICATE OF COMPLETION

This entry-level combination of courses is designed to help students begin to communicate in everyday life situations they will encounter at home, at school, at work, and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 393, Introduction to ESL Family Literacy
 ESL 399, ESL Literacy
 ESL 401, ESL/Family Literacy, Beginning 1
 ESL 410, Beginning ESL 1

Choose 1:

ESL 398, Community Learning Center



COMMUNICATION ESL BEG A CERTIFICATE OF COMPLETION

This beginning combination of courses is designed to help students communicate in a limited way in everyday life situations they will encounter at home, at school, at work and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 401, ESL/Family Literacy, Beginning 1
 ESL 410, Beginning ESL 1

Choose 1:

ESL 405, ESL/Family Literacy Beginning 2
 ESL 420, Beginning ESL 2

COMMUNICATION ESL BEG B CERTIFICATE OF COMPLETION

This combination of courses is designed to help students communicate in a limited way in everyday life situations they will encounter at home, at school, at work, and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 401, ESL/Family Literacy, Beginning 1
 ESL 405, ESL/Family Literacy Beginning 2
 ESL 410, Beginning ESL 1
 ESL 420, Beginning ESL 2

Choose 1:

ESL 398, Community Learning Center

COMMUNICATION ESL TRANSITIONING A CERTIFICATE OF COMPLETION

This combination of courses is designed to help students communicate effectively in many everyday life situations they will encounter at home, at school, at work, and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 407, ESL/Family Literacy Beginning 3
 ESL 430, Beginning ESL 3

Choose 1:

ESL 408, ESL/Family Literacy Intermediate 1
 ESL 460, Intermediate ESL 1
 ESL 703, Academic ESL Beginning 3

COMMUNICATION ESL TRANSITIONING B CERTIFICATE OF COMPLETION

This combination of courses is designed to help students communicate adequately in many everyday life situations they will encounter at home, at school, at work, and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 407, ESL/Family Literacy Beginning 3
 ESL 430, Beginning ESL 3
 ESL 408, ESL/Family Literacy Intermediate 1
 ESL 460, ESL Intermediate 1
 ESL 711, Academic ESL Intermediate 1

Choose 1:

ESL 120, ESL Civics
 ESL 140, VESL Childcare Educators
 ESL 394, ESL Writing A
 ESL 398, Community Learning Center
 ESL 530, American English Pronunciation
 ESL 570, Conversation 1

COMMUNICATION ESL INT A CERTIFICATE OF COMPLETION

This combination of courses is designed to help students communicate successfully in most everyday life situations they will encounter at home, at school, at work, and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 409, ESL/Family Literacy Intermediate 2
 ESL 470, Intermediate ESL 2

Choose 1:

ESL 480, Intermediate ESL 3
 ESL 712, Academic ESL Intermediate 2

COMMUNICATION ESL INT B CERTIFICATE OF COMPLETION

This combination of courses is designed to help students communicate successfully in most everyday life situations they will encounter at home, at school, at work, and in the community.

To obtain this certificate, take two courses.

Choose 1:

ESL 409, ESL/Family Literacy Intermediate 2
 ESL 470, Intermediate ESL 2
 ESL 480, Intermediate ESL 3

Choose 1:

ESL 120, ESL Civics
 ESL 140, VESL Childcare Educators
 ESL 395, ESL Writing B
 ESL 398, Community Learning Center
 ESL 490, Advanced Writing and Grammar Review
 ESL 530, American English Pronunciation
 ESL 580, Conversation 2
 ESL 712, Academic ESL Intermediate 2
 ESL 713, Academic ESL Intermediate 3



COMMUNICATION ESL INT C CERTIFICATE OF COMPLETION

This combination of courses is designed to transition students to Adult Basic Education courses (ABE).

To obtain this certificate, take two courses.

Choose 1:

ESL 408, ESL/Family Literacy Intermediate 1
 ESL 409, ESL/Family Literacy Intermediate 2
 ESL 460, Intermediate ESL 1
 ESL 470, Intermediate ESL 2
 ESL 480, Intermediate ESL 3

Choose 1:

ABE 009

COMMUNICATION ESL INT D CERTIFICATE OF COMPLETION

This combination of courses is designed to transition students to High School courses, GED Preparation courses, and college courses.

To obtain this certificate, take two courses.

Choose 1:

ESL 408, ESL/Family Literacy Intermediate 1
 ESL 409, ESL Family Literacy Intermediate 2
 ESL 460, Intermediate ESL 1
 ESL 470, Intermediate ESL 2
 ESL 480, Intermediate ESL 3

Choose 1:

HSRDG 089, Reading Proficiency Development
 HSRDG 093, Building Reading Skills 1

CHILDCARE WORKERS CERTIFICATE OF COMPLETION

This series of open entry/open exit courses provides students with knowledge about the care and development of infants, toddlers, and pre-school children for family childcare providers. Students will learn about health information required for licensing and skills necessary for successful operation of a childcare business. In Employability Skills students learn soft skills for those who would prefer to be employed by a childcare business.

Courses:

Vocational Business 559, Business Practices in Family Day Care
 Vocational Business 590, Introduction on How to Start a Small Business
 Vocational Business 400, Employability Skills
 Parent Education 558, Early Childhood Care and Development for Family Child Care Providers
 Parent Education 562, Health Education for Family Day Care Providers

PARAPROFESSIONAL MENTAL HEALTH WORKER CERTIFICATE OF COMPLETION

This series of courses provides students with the basic skills to gain employment as a Paraprofessional Mental Health Worker. Students acquire knowledge about the treatment of psychological and behavioral health disorders and the philosophy of delivery of mental health services to improve entry into this field. The certificate program in an open-entry/open-exit environment develops competency for vocational success that allows students to attain skill development in basic delivery of services, documentation and reporting, introduction to human development, principles of case management, working with families, and employability.

Core Courses:

Vocational Business 400, Employability Skills
 Vocational Health 895, Paraprofessional Mental Health Worker I
 Vocational Health 896, Paraprofessional Mental Health Worker II
 Vocational Health 897, Paraprofessional Mental Health Worker III

CUSTOMER SERVICE REPRESENTATIVE CERTIFICATE OF COMPLETION

This series of courses prepares students for customer service positions in a wide variety of business fields. The program provides an open entry/open exit instructional format that allows students to attain skill development to interface directly with customers as the company representative in identifying customer needs, providing appropriate service, and in resolving special problems that may arise. Focus is on interpersonal and customer services in the workplace, as well as on upgrading technological competence. Students will be prepared to work as commercial or residential service representatives in major department stores, collection agencies, credit bureaus, airlines, travel agencies, medical insurance agencies, public utilities, and telephone answering services.

Core Courses:

Vocational Business 124, Introduction to Keyboarding I
 Vocational Business 243, Introduction to Customer Service Skills
 Vocational Business 258, Navigating the Internet
 Vocational Business 259, Orientation to Computers
 Vocational Business 260, Introduction to Word Processing Using MS Word
 Vocational Business 400, Employability Skills

GENERAL OFFICE CLERK CERTIFICATE OF COMPLETION

This series of courses prepares students for entry-level general office clerk positions in a business environment. This program provides an open-entry/open-exit instructional format that allows students to attain knowledge of basic level office concepts, procedures, and technology commonly used in an office setting. Students learn introduction to keyboarding, computer software applications, general office skills, customer service and telephone techniques, and soft skills. This certificate provides the foundation for preparing students in entry level jobs and careers in the business environment.

Core Courses:

Vocational Business 118, Introduction to Windows
 Vocational Business 124, Introduction to Keyboarding I
 Vocational Business 258, Navigating the Internet
 Vocational Business 260, Introduction to Word Processing Using MS Word
 Vocational Business 262, Introduction to Spreadsheets Using MS Excel
 Vocational Business 400, Employability Skills



EXECUTIVE SECRETARY/ADMINISTRATIVE ASSISTANT CERTIFICATE OF COMPLETION

This series of courses prepares students for in-depth training in executive secretary/administrative assistant positions. The open-entry/open-exit, competency-based format promotes success in a high employment occupational field. This certificate program develops skills in research, report and correspondence preparation, advanced computer software applications, database management, interactive presentations, customer service and telephone techniques, and other advanced office procedures.

Core Courses:

Vocational Business 125, Introduction to Keyboarding II

Vocational Business 244, Introduction to Databases Using Microsoft Access

Vocational Business 245, Introduction to Desktop Publishing Using Microsoft Publisher

Vocational Business 304, Introduction to Electronic Presentations Using PowerPoint

Vocational Business 400, Employability Skills

COMPUTER MAINTENANCE AND REPAIR WORKERS CERTIFICATE OF COMPLETION

This series of courses provides students with skills in maintenance, repair, upgrading, and networking of personal computers. The open-entry/open-exit instructional format emphasizes functional operations of hardware and software components, hands-on experience with upgrading and repair of computers, setting up home and small office networks, and troubleshooting most technical problems. Students will receive five High School elective credits upon completion of each course.

To obtain this certificate, take three courses.

Vocational Business 574, Computer Basics: Hardware and Software

Vocational Business 450, Hardware and Software A+ Preparation, Review, Practice

Vocational Business 576, Computer Basics: Systems and Networking Essentials



ADULT BASIC EDUCATION (ABE)

Adult Basic Education 009

Adult Basic Education - Reading, Writing, and Math

Credit(s): 5

Class Hours: 72-288

Instructs students in basic skills, including reading, writing, spelling, and mathematics. Prepares students to take High School Subjects courses, job training, or college credit classes. Recommended for Intermediate ESL 1 students or above and/or placement by counselor assessment. Open Entry/Open Exit.

Adult Basic Education 018

Leadership Basics, Part 2

Credit(s): 0

Class Hours: 72

Students will increase their mastery of basic skills through intensive, interactive, student-centered activities designed to give hands-on training and experience in aspects of directing and facilitating a conference. This is the second of a two-part leadership course in which students apply leadership techniques in the workplace, home, school, and the community. Recommended for ABE and ESL Intermediate 1, 2, or 3 or above students. Five high school elective credits may be given for completing either ABE 018 or HSS 092 if the student achieves the attendance and proficiency requirements to pass the class. Open Entry/Open Exit.

Adult Basic Education 023

Adult Basic Education Reading

Credit(s): 0

Class Hours: 72

Instructs students in basic reading skills. Prepares students to take High School Subjects courses, job training, GED Preparation, or college credit classes. Recommended for Intermediate ESL 2 students or above and/or placement by counselor assessment. Five High School elective credits may be granted for successful completion of this class. Open Entry/Open Exit.

Adult Basic Education 024

Adult Basic Education Writing

Credit(s): 0

Class Hours: 72

Instructs students in basic writing skills. Prepares students to take High School Subjects courses, job training, GED Preparation, or college credit classes. Recommended for Intermediate ESL 2 students or above and/or placement by counselor assessment. Five High School elective credits may be granted for successful completion of this class. Open Entry/Open Exit.

Adult Basic Education 025

Adult Basic Education Math

Credit(s): 0

Class Hours: 72

Instructs students in basic math skills. Prepares students to take High School Subjects courses, job training, GED Preparation, or college credit classes. Recommended for Intermediate ESL 2 students or above and/or placement by counselor assessment. Five High School elective credits may be granted for successful completion of this class. Open Entry/Open Exit.

Adult Basic Education 044

Leadership Basics Part 1

Credit(s): 0

Class Hours: 72

Introduces useful leadership skills. Students will increase their mastery of basic skills through intensive, interactive, student-centered activities designed to give hands-on training and experience in aspects of directing and facilitating a conference. This is the first of a two-part leadership course in which students apply leadership techniques in the workplace, home, school, and the community. Recommended for ABE and ESL Intermediate 1, 2, or 3 or above students. Five high school elective credits may be given for completing either ABE 044 or HSS 090 if the student achieves the attendance and proficiency requirements to pass the class. Open Entry/Open Exit.

Adult Basic Education 046

Attitudes for Success

Credit(s): 0

Class Hours: 60

Provides students with classroom discussion and information about attitudes and behaviors that influence success in their personal, educational and career development.

Adult Basic Education 111

Spanish Literacy for Adults

Credit(s): 0

Class Hours: 240-480

Assists native Spanish-speaking students in acquiring literacy in Spanish in order to facilitate the transition to beginning ESL courses. Focuses on basic reading and writing skills, including phonics decoding and encoding skills, as well as classroom, parenting and community coping skills. Recommended for non-literate native speakers of Spanish. Taught in Spanish. Open Entry/Open Exit.

Adult Basic Education 137

Topics in Adult Basic Education

Credit(s): 0

Class Hours: 3-216

A specialized course on topics related to current needs of Adult Basic Education. Open Entry/Open Exit.

CITIZENSHIP (CTZN)

Citizenship 020

Citizenship

Credit(s): 0

Class Hours: 72

Provides basic knowledge of local, state, and federal government in preparation for the United States citizenship examination including language usage within the context of history and government. Recommended for students in Beginning ESL 2 or above. Open Entry/Open Exit.

COUNSELING (CNLS)

Counseling 303

Educational & Career Assessment

Credit(s): 0

Class Hours: 3

Assists students with appropriate educational placement and/or an overview of student services, career, and academic guidance information that is available in Continuing Education as a result of individual and group testing. Open Entry/Open Exit.

ENGLISH AS A SECOND LANGUAGE (ESL)

English As a Second Language 120

ESL Civics

Credit(s): 0

Class Hours: 144

Provides development in listening, speaking, reading, and writing English within the context of history and government in preparation for the United States Citizenship examination. Recommended for students in Beginning ESL 3 and above. Open Entry/Open Exit.

English As a Second Language 140

VESL: Child Care Educators

Credit(s): 0

Class Hours: 36

This beginning academic VESL course supports child care educators enrolled in Human Development courses. Emphasizes listening, speaking, reading, writing, grammar, and study skills using child development content. Open Entry/Open Exit.

English As a Second Language 392

Writing & Computers: Developing a School Publication

Credit(s): 0

Class Hours: 72

Provides instruction for students in developing a student publication. Computers and the Internet will be used to develop and research for the publication. Students will work in teams on different sections of the publication. Recommended for students in Beginning ESL 3 or above. Open Entry/Open Exit.



English As a Second Language 393
Introduction to ESL Family Literacy

Credit(s): 0

Class Hours: 18

Utilizes various language-based activities to enhance family language learning and introduces the four components of family literacy: basic adult literacy skills, parent education, emergent literacy needs of children, and adults and children reading together. Open Entry/Open Exit.

English As a Second Language 394
ESL Writing A

Credit(s): 0

Class Hours: 72

Introduces non-native English speakers to an overview of the writing process including activities to improve composition skills. This course is designed for students who test at the ESL Beginning 3 and Intermediate 1 levels on the ESL Placement or the ESL pre- and post-tests. Open Entry/Open Exit.

English As a Second Language 395
ESL Writing B

Credit(s): 0

Class Hours: 72

Introduces the writing process to improve composition skills. This course is designed for students who test at the ESL Intermediate 2 and Intermediate 3 levels on the ESL Placement or the ESL pre- and post-tests. Open Entry/Open Exit.

English As a Second Language 398
ESL Community Learning Center

Credit(s): 0

Class Hours: 72

Provides English language learners of all levels the opportunity to improve and support their language skills, while increasing knowledge of civics, citizenship, and computer literacy, through individualized, small group, and technology-based instruction. Open Entry/Open Exit.

English As a Second Language 399
ESL Literacy

Credit(s): 0

Class Hours: 216

Develops the ability of second language learners to recognize and read letters and numbers, copy/produce the alphabet, numerals, and simple personal information. This is the first course in the Continuing Education ESL continuum. Open Entry/Open Exit.

English As a Second Language 401
ESL/Family Literacy Beginning 1

Credit(s): 0

Class Hours: 216

Emphasizes listening comprehension and beginning oral production of simple conversation, reading of practiced words and phrases, and prewriting tasks. Utilizes various language-based activities to enhance family language learning with adults and children reading together. Develops parenting skills using language appropriate for this level. This course includes the ESL Beginning 1 curriculum. Open Entry/Open Exit.

English As a Second Language 405
ESL/Family Literacy Beginning 2

Credit(s): 0

Class Hours: 216

Emphasizes comprehending simple conversations, communicating survival needs, reading phrases and simple sentences, and performing communicative written tasks. Utilizes various language-based activities to enhance family language learning with adults and children reading together. Develops parenting skills using language appropriate for this level. This course includes the ESL Beginning 2 curriculum. Open Entry/Open Exit.

English As a Second Language 407
ESL/Family Literacy Beginning 3

Credit(s): 0

Class Hours: 216

Emphasizes comprehending, participating in, and sustaining simple conversations, reading short passages with understanding, and producing short written passages. Utilizes various language-based activities to enhance family language learning with adults and children reading together. Develops parenting skills using language appropriate for this level. This course includes the ESL Beginning 3 curriculum. Open Entry/Open Exit.

English As a Second Language 408
ESL/Family Literacy Intermediate 1

Credit(s): 0

Class Hours: 216

Emphasizes creative oral language activities, initial critical thinking skills in reading comprehension, and written tasks which begin to focus on academic skills. This course includes the ESL Intermediate 1 curriculum with an additional family literacy focus and component. Utilizes various language-based activities to enhance family language learning. Develops parenting skills using language appropriate for this level. Five High School elective credits may be granted if student passes the ESL posttest for this class with 75% or better. Open Entry/Open Exit.

English As a Second Language 409
ESL/Family Literacy Intermediate 2

Credit(s): 0

Class Hours: 216

Emphasizes understanding higher level language activities, reading passages with increased understanding, and increasing focus on creative and academic writing tasks. This course includes the ESL Intermediate 2 curriculum with an additional family literacy focus and component. Utilizes various language-based activities to enhance family language learning. Five High School elective credits may be granted if student passes the ESL posttest for this class with 75% or better. Open Entry/Open Exit.

English As a Second Language 410
Beginning ESL 1

Credit(s): 0

Class Hours: 216

Emphasizes listening comprehension and beginning oral production of simple conversations, reading of practiced words and phrases, and prewriting tasks. This is the second course in the Continuing Education ESL continuum. Open Entry/Open Exit.

English As a Second Language 420
Beginning ESL 2

Credit(s): 0

Class Hours: 216

Emphasizes comprehending simple conversations, communicating survival needs, reading phrases and simple sentences, and performing communicative written tasks. This is the third course in the Continuing Education ESL continuum. Open Entry/Open Exit.

English As a Second Language 430
Beginning ESL 3

Credit(s): 0

Class Hours: 216

Emphasizes comprehending, participating in and sustaining simple conversations, reading short passages with understanding, and producing short written passages. This is the fourth course in the Continuing Education ESL continuum. Open Entry/Open Exit.

English As a Second Language 460
Intermediate ESL 1

Credit(s): 0

Class Hours: 216

Emphasizes creative oral language activities, initial critical thinking skills in reading comprehension, and written tasks which begin to focus on academic skills. This is the fifth course in the Continuing Education ESL continuum. Five High School elective credits may be granted if student passes the ESL posttest for this class with 75% or better. Open Entry/Open Exit.



English As a Second Language 470
Intermediate ESL 2

Credit(s): 0
Class Hours: 216

Emphasizes understanding higher level language activities, reading passages with increased understanding, and increasing focus on creative and academic writing tasks. This is the sixth course in the Continuing Education ESL continuum. Five High School elective credits may be granted if student passes the ESL posttest for this class with 75% or better. Open Entry/Open Exit.

English As a Second Language 480
Intermediate ESL 3

Credit(s): 0
Class Hours: 216

Emphasizes higher level language activities, conversations which convey complex thought patterns, authentic material which expands the use of critical thinking skills, and realistic and creative/academic writing. This is the seventh course in the Continuing Education continuum. Five High School elective credits may be granted if student passes the posttest for this class with 70% or better. Open Entry/Open Exit.

English As a Second Language 490
Advanced Writing & Grammar Review

Credit(s): 0
Class Hours: 72

Provides intensive review and practice of writing strategies and basic grammar. Concentrates on paragraph writing along with verb tenses, adjective, noun and adverb clauses. Recommended completion of Intermediate ESL 3 or equivalent. Five high school elective credits may be granted if student passes the posttest for this class with 70% or better. Open Entry/Open Exit.

English As a Second Language 510
VESL: English for Work 1

Credit(s): 0
Class Hours: 216

Prepares limited English-speaking students for employment. Focuses on vocabulary skills and vocational readings with emphasis on oral communication through basic language skills instruction. Recommended for students in Beginning ESL 2 or Beginning ESL 3. Open Entry/Open Exit.

English As a Second Language 520
VESL: English for Work 2

Credit(s): 0
Class Hours: 216

Prepares limited English-speaking students for employment. Focuses on vocabulary skills and vocational readings with emphasis on oral communication through intermediate language skills instruction. Recommended for students in Intermediate 1 or higher. Open Entry/Open Exit.

English As a Second Language 530
American English Pronunciation

Credit(s): 0
Class Hours: 216

Develops English language fluency and productive and receptive skills as they relate to sound discrimination, sound inventory, stress, intonation, linking, prominence, and rhythm. The course aims to help students understand English and be understood while functioning within employment, survival and academic contexts. This course is recommended for Beginning ESL 3 students and above. Open Entry/Open Exit.

English As a Second Language 570
Conversation 1

Credit(s): 0
Class Hours: 72

Introduces conversational strategies in listening, language use, and non-verbal communication. Presents oral skills necessary in initiating, maintaining, and closing conversations. Emphasis on oral skills that assist in social encounters and expand listening and speaking skills. This course is recommended for Beginning ESL 3 and Intermediate ESL 1 students. Open Entry/Open Exit.

English As a Second Language 580
Conversation 2

Credit(s): 0
Class Hours: 72

For students interested in obtaining a practical degree of fluency in spoken English. This course focuses on the further analysis of conversational strategies including verbal and nonverbal communication within large and small groups. Emphasizes differences between formal and colloquial language based on American attitudes and culture. Recommended for Intermediate ESL 2 and Intermediate ESL 3 students. Open Entry/Open Exit.

English As a Second Language 703
Academic ESL Beginning 3

Credit(s): 0
Class Hours: 216

First academic ESL course emphasizing basic grammatical structures of English, reading skills, and sentence level writing. This course integrates listening, speaking, reading, and writing skills in preparation for academic success. Open Entry/Open Exit.

English As a Second Language 711
Academic ESL Intermediate 1

Credit(s): 0
Class Hours: 216

Second academic ESL course emphasizing the grammatical structures of English, reading skills, and basic paragraph writing. This course integrates listening, speaking, reading, and writing skills. Begin to use critical thinking skills in reading comprehension. Five high school elective credits may be granted if student passes the ESL posttest with 75% or better. Open Entry/Open Exit.

English As a Second Language 712
Academic ESL Intermediate 2

Credit(s): 0
Class Hours: 216

Third academic ESL course emphasizing more complex grammatical structures of English, reading skills, and more complex paragraphs. This course integrates listening, speaking, reading, and writing skills. Five high school elective credits may be granted if student passes the ESL posttest with 75% or better. Open Entry/Open Exit.

English As a Second Language 713
Academic ESL Intermediate 3

Credit(s): 0
Class Hours: 216

Fourth academic ESL course emphasizing complex grammatical structures of English, reading skills, and more complex paragraph writing. This course integrates listening, speaking, reading, and writing skills. Five high school elective credits may be granted if student passes the ESL posttest with 70% or better. Open Entry/Open Exit.

HEALTH & SAFETY (SAFE)

Health & Safety 875
First Aid

Credit(s): 0
Class Hours: 15

Provides students with general knowledge of basic first aid and CPR procedures. Open Entry/Open Exit.

Health & Safety 877
Health Issues & Concepts

Credit(s): 0
Class Hours: 72

Provides a basic foundation in the issues and concepts of mental health, family and social health, the stages in the life cycle, medicine and drugs, and diseases and disorder. Open Entry/Open Exit.



HIGH SCHOOL SUBJECTS (HSS)

High School Subjects 010

Learning Skills & Strategies

Credit(s): 5

Class Hours: 72

Provides individualized instruction to improve learning strategies and basic reading, writing, and mathematics skills. Prepares adults who have verified learning disabilities to successfully meet educational and vocational goals. Recommended for students who meet eligibility requirements for D.S.P.S. services.

High School Subjects 032

High School Subjects Individualized Instruction

Credit(s): 0

Class Hours: 72

Individualized delivery for the Adult High School Diploma Program. Designed for the adult who wants a high school diploma. Self-paced with offerings in the areas of English communication, mathematics, science, social studies, fine arts/foreign language, life skills, and electives. Recommended 8th grade equivalency on TABE. Open Entry/Open Exit.

High School Subjects 090

Leadership Basics, Part 1

Credit(s): 5

Class Hours: 72

Introduces useful leadership skills. Students will increase their mastery of basic skills through intensive, interactive, student-centered activities designed to give hands-on training and experience in aspects of directing and facilitating a conference. This is the first of a two-part leadership course in which students apply leadership techniques in the workplace, home, school, and the community. Five high school elective credits may be given for completing either ABE 044 or HSS 090 if the student achieves the attendance and proficiency requirements to pass the class. Open Entry/Open Exit.

High School Subjects 092

Leadership Basics, Part 2

Credit(s): 5

Class Hours: 72

Students will increase their mastery of basic skills through intensive, interactive, student-centered activities designed to give hands-on training and experience in aspects of directing and facilitating a conference. This is the second of a two-part leadership course in which students apply leadership techniques in the workplace, home, school, and the community. Five high school elective credits may be given for completing either ABE 018 or HSS 092 if the student achieves the attendance and proficiency requirements to pass the class. Open Entry/Open Exit.

High School Subjects 095

Basic Skills Supervised Tutoring

Credit(s): 0

Class Hours: Arranged

Supervised one-to-one and small group tutoring to assist students in the basic skills of reading, writing, and mathematics for students enrolled at Santa Ana College School of Continuing Education in course(s) for which tutoring is requested. Exam review sessions offered in some areas. Referral by counselor or instructor based on assessed academic need. Open Entry/Open Exit.

High School Subjects 221

Study Skills 1

Credit(s): 5

Class Hours: 72

Develops student's study and test preparation skills. Introductory instruction in basic study skills, organizational skills, goal setting, note taking, report writing, time management, test preparation, learning styles, and effective communication skills. Provides learning opportunities for students to develop and master effective study skills for successful academic career achievement.

High School Subjects 222

Study Skills 2

Credit(s): 5

Class Hours: 72

Develops the student's study and test preparation skills. Second semester instruction in basic study skills, organizational skills, goal setting, note taking, report writing, time management, test preparation, learning styles, effective communication, and stress management skills. Provides learning opportunities for students to develop and master effective study skills for successful academic and career achievement.

High School Subjects 229

Skills for Success

Credit(s): 5

Class Hours: 72

Assists students in developing skills that promote academic success. Students will learn study and organizational skills, goal setting, critical thinking skills, and written/oral communication. Compensatory strategies and technology will be emphasized.

High School Subjects 770

Orientation to College

Credit(s): 1.5

Class Hours: 8

Introduces college services and programs. Identifies and explores programs and services designed to assist students entering college credit courses.

HIGH SCHOOL SUBJECTS - ARTS (HSART)

High School Subjects - Arts 500

Introduction to Theatre Arts

Credit(s): 5

Class Hours: 72

Offers students opportunities to examine human experiences through imagined roles, expand the capacity for creative thinking, and learn the history and terminologies of an important form of art. Open Entry/Open Exit.

High School Subjects - Arts 601

Music Theory 1

Credit(s): 5

Class Hours: 72

Provides a beginning level music course that introduces students to the vocabulary and basic principles of music. The primary emphasis will be on rhythm, pitch, and notation. Emphasis will also be given to beginning piano study.

High School Subjects - Arts 828

Understanding America Through Art

Credit(s): 5

Class Hours: 72

Provides an overview of American civilization through arts and crafts from the colonial period through the 20th century, including periods and artistry in their historical context. Open Entry/Open Exit.

High School Subjects - Arts 837

The Film As Art

Credit(s): 5

Class Hours: 72

Traces the history of film from the recording of a single event through the silent film era. Culminates in the use of classic and contemporary literature as a basis for modern film. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - ENGLISH (HSENG)

High School Subjects - English 040

California High School Exit Exam Language Arts Preparation

Credit(s): 5

Class Hours: 72

Provides students with an overview of the California State Standards that are tested on the California High School Exit Exam and affords students the opportunity to gain the knowledge and skills necessary to pass the Language Arts portion of the exam. Open Entry/Open Exit.

High School Subjects - English 065

English Fundamentals 1

Credit(s): 5

Class Hours: 72

Introduces students to basic concepts and skills of building vocabulary, grammar, parts of speech, writing sentences, and paragraphs. Open Entry/Open Exit.



**High School Subjects - English 066
English Fundamentals 2**

Credit(s): 5

Class Hours: 72

Reinforces and expands the basic concepts of sentence structure, vocabulary, grammar, parts of speech, and writing skills. Open Entry/Open Exit.

**High School Subjects - English 067
English Fundamentals 3**

Credit(s): 5

Class Hours: 72

Provides an intermediate English course that expands upon vocabulary, parts of speech, and grammar to accelerate writing skills. Open Entry/Open Exit.

**High School Subjects - English 068
English Fundamentals 4**

Credit(s): 5

Class Hours: 72

Provides an advanced course in English vocabulary, grammar, parts of speech, writing skills, and general proficiency in the English language, both written and spoken. Open Entry/Open Exit.

**High School Subjects - English 070
The Short Story**

Credit(s): 5

Class Hours: 72

Introduces the student to the short story as a literary form so that the student will learn how the individual elements work together to present a theme of effect. The student will study the development of the short story and will read selected short stories from various periods. Course cannot be challenged. Open Entry/Open Exit.

**High School Subjects - English 076
The Novel**

Credit(s): 5

Class Hours: 72

Introduces the student to the novel as a literary form and how the individual elements work together to present a theme. The student will select two novels from an annotated reading list for independent study, completing Dialectical Journal entries. Open Entry/Open Exit.

**High School Subjects - English 083
Composition 1**

Credit(s): 5

Class Hours: 72

Provides instruction and practice in the communication of ideas in written form. Emphasis on mastery of sentence and paragraph skills, including organization in terms of unity, support, and coherence in an effective, well-supported, one page composition. Open Entry/Open Exit.

**High School Subjects - English 084
Composition 2**

Credit(s): 5

Class Hours: 72

Prerequisite: COMPOSITION 1

Prepares the student to write well-conceived and well-executed two page essays. Meets the composition proficiency requirement. (Recommended for students who have completed Composition 1 or equivalent.). Open Entry/Open Exit.

**High School Subjects - English 085
Composition 3**

Credit(s): 5

Class Hours: 72

Prepares college bound students with advanced writing assignments that require in-depth research culminating in the production of two argumentative essays and a 1500 word final argumentative research paper. (Recommended for students who have completed Composition 2 or equivalent.). Open Entry/Open Exit.

**High School Subjects - English 096
Bldg Vocabulary 1**

Credit(s): 5

Class Hours: 72

A basic vocabulary course that provides practice in using context clues to develop vocabulary and includes practice in synonyms, antonyms, matching words with meaning, adding words to readings, and sentence writing. Open Entry/Open Exit.

**High School Subjects - English 097
Bldg Vocabulary 2**

Credit(s): 5

Class Hours: 72

An intermediate vocabulary course that provides practice in using context clues to develop vocabulary and includes practice in synonyms, antonyms, matching words with meaning, adding words to readings, analogies, and sentence writing. Develops vocabulary skills needed to master state standardized tests. Open Entry/Open Exit.

**High School Subjects - English 098
Building Vocabulary 3**

Credit(s): 5

Class Hours: 72

An advanced vocabulary course that provides practice in using context clues to develop vocabulary and includes practice in synonyms, antonyms, matching words with meaning, adding words to readings, analogies, and sentence writing. Builds reading comprehension skills and creates a strong vocabulary foundation that enables students to be better readers, writers, thinkers, and test takers. Open Entry/Open Exit.

**High School Subjects - English 701
English 1**

Credit(s): 5

Class Hours: 72

Provides students with a course of study that focuses on the California State Standards in English Language Arts for students in the first semester of the ninth grade year.

**High School Subjects - English 702
English 2**

Credit(s): 5

Class Hours: 128-160

Provides students with a course of study that focuses on the California State Standards in English Language Arts for students in the second semester of the ninth grade year.

**High School Subjects - English 703
English 3**

Credit(s): 5

Class Hours: 128-168

Provides students with a course of study that focuses on the California State Standards in English Language Arts for students in the first semester of the tenth grade year.

**High School Subjects - English 704
English 4**

Credit(s): 5

Class Hours: 72

Provides students with a course of study that focuses on the California State Standards in English Language Arts for students in the second semester of the tenth grade year.

**High School Subjects - English 705
English 5**

Credit(s): 5

Class Hours: 72

Offers an intermediate course exposing students to representative works in American literature from the Colonial period to the rise of realism with opportunities to develop writing skills for editorials, short stories, and essays, supported by lessons in English grammar and sentence structure.

**High School Subjects - English 706
English 6**

Credit(s): 5

Class Hours: 72

Offers an intermediate course exposing students to representative works in American literature from the Modern American fiction period to contemporary American literature with opportunities to develop writing skills for essays, research papers, biographies, and autobiographies, supported by lessons in English grammar and sentence structure.



High School Subjects - English 707 English 7

Credit(s): 5
Class Hours: 72

Offers an advanced course exposing students to representative works in English literature from the Anglo-Saxon period to the Restoration with opportunities to develop writing skills for reports and essays, supported by lessons in English grammar and sentence structure.

High School Subjects - English 708 English 8

Credit(s): 5
Class Hours: 72

Offers an advanced course exposing students to representative works in English literature from the Romantic period to the present, with opportunities to develop writing skills for reports and essays, supported by lessons in English grammar and sentence structure.

HIGH SCHOOL SUBJECTS - MATH (HSMTH)

High School Subjects - Math 140 California High School Exit Exam Math Preparation

Credit(s): 5
Class Hours: 72

Provides students with an overview of the California State Standards that are tested on the California High School Exit Exam and affords students the opportunity to gain the knowledge and skills necessary to pass the mathematics portion of the exam.

High School Subjects - Math 150 Algebra I Support

Credit(s): 5
Class Hours: 72

Provides focused instruction for students needing remediation and support in Pre-algebra and in Algebra.

High School Subjects - Math 154 Pre-Algebra A

Credit(s): 5
Class Hours: 72

Covers language, symbolism, and fundamental operations skills required to prepare students for success in Algebra 1. Number and operation sense, estimation skills, and the ability to judge reasonableness of results will be strengthened in the context of practical applications and problem solving. (Recommended for students who have completed Math Fundamentals 2 or equivalent.). Open Entry/Open Exit.

High School Subjects - Math 155 Pre-Algebra B

Credit(s): 5
Class Hours: 72

Covers language, symbolism, and fundamental operations skills required to prepare students for success in Algebra 1 and Geometry. Data analysis, spatial thinking, and the ability to judge reasonableness of results will be strengthened in the context of practical applications and problem solving. Recommended for students who have completed Pre-Algebra A or equivalent. Open Entry/Open Exit.

High School Subjects - Math 158 Math Fundamentals 1

Credit(s): 5
Class Hours: 72

Provides instruction in the four arithmetic operations of addition, subtraction, multiplication, and division of whole numbers and fractions and decimals. Provides learning activities including manipulative lessons which allow development and mastery of necessary skills. Open Entry/Open Exit.

High School Subjects - Math 159 Math Fundamentals 2

Credit(s): 5
Class Hours: 72

Provides instruction in the areas of decimals, percents, measurements, formulas, equations, ratios, and proportions. Provides learning activities which allow for remediation of difficulties and mastery of necessary skills. Recommended for students who have completed Math Fundamentals 1 or equivalent. Open Entry/Open Exit.

High School Subjects - Math 163 Algebra 1A

Credit(s): 5
Class Hours: 72

Provides instruction in sets, numbers, formulas, monomials, exponents, square root, the laws of the signs, binomials, and simultaneous equations. Recommended for students who have completed Math Fundamentals 2 or equivalent. Open Entry/Open Exit.

High School Subjects - Math 164 Algebra 1B

Credit(s): 5
Class Hours: 72

Provides instruction in coordinate systems, graphing of linear equations, simultaneous equations with fractions, ratios, proportions, factoring, formulas, inequalities and square roots. Recommended for students who have completed Algebra 1A or equivalent. Open Entry/Open Exit.

High School Subjects - Math 165 Algebra 2A

Credit(s): 5
Class Hours: 72

Provides students with a course of study in equations and inequalities; linear equations and functions; systems of linear equations and inequalities; matrices and determinants; quadratic functions; polynomials and polynomial functions; and powers, roots and radicals. Recommended for students who have completed ten credits in geometry or equivalent. Open Entry/Open Exit.

High School Subjects - Math 166 Algebra 2B

Credit(s): 5
Class Hours: 72

Provides students with a course of study that includes: exponential and logarithmic functions; rational equations and functions; quadratic relations and conic sections; sequences and series; probability and statistics; trigonometric ratios and functions; and trigonometric graphs. Recommended for students who have completed Algebra 2A or equivalent. Open Entry/Open Exit.

High School Subjects - Math 167 Geometry A

Credit(s): 5
Class Hours: 72

This course covers topics in basic geometry, reasoning and proofs, perpendicular and parallel lines, congruent triangles, properties of triangles, and quadrilaterals. Recommended for students who have completed ten credits of algebra. Open Entry/Open Exit.

High School Subjects - Math 168 Geometry B

Credit(s): 5
Class Hours: 72

This course covers topics in transformations, similarity, right triangles, trigonometry, circles, areas of polygons and circles, surface area and volume. Recommended for students who have completed Geometry A or equivalent. Open Entry/Open Exit.

High School Subjects - Math 172 Basic Consumer Math 1A

Credit(s): 5
Class Hours: 72

Provides a comprehensive review of arithmetic skills that apply to personal and vocational opportunities. Topics covered include whole numbers operations, customary and metric units, fractions, decimals, and percents. Skills are then applied to everyday mathematic problems of the consumer.



High School Subjects - Math 173
Basic Consumer Math 1B

Credit(s): 5

Class Hours: 72

Students will use practical computational skills to solve common problems in a consumer's life including home improvements, traveling costs, budgeting household expenses, banking and investing, paying real estate and sales taxes, and preparing for careers. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - OTHER (HSOTH)

High School Subjects - Other 740

Spanish 1

Credit(s): 5

Class Hours: 72

Provides students with a beginning course in Spanish, emphasizing oral communication, vocabulary building, fundamental pronunciation, and grammar. Includes practice in reading and simple conversation and gives an introduction to Spanish-speaking people and their culture.

High School Subjects - Other 742

Spanish 2

Credit(s): 5

Class Hours: 72

Provides students with additional skills, concepts, grammar and vocabulary appropriate for a first year course in learning to speak Spanish.

High School Subjects - Other 743

Spanish 3

Credit(s): 5

Class Hours: 72

Provides a language integrated course designed to provide native Spanish speaking students with academic language proficiencies. Offers listening, speaking, reading, writing, and critical thinking, and vocabulary development. Writing as a process and literature will be emphasized.

High School Subjects - Other 744

Spanish 4

Credit(s): 5

Class Hours: 72

Provides students with additional skills, concepts, grammar and vocabulary appropriate for a second year course in learning to speak Spanish. (Recommended for those students who have completed Spanish 3 or equivalent.)

High School Subjects - Other 772

Positive Life Attitudes

Credit(s): 5

Class Hours: 72

Provides students with classroom discussion and information in a variety of life skills relating to their personal, career, and educational development. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - READING (HSRDG)

High School Subjects - Reading 089
Reading Proficiency Development

Credit(s): 5

Class Hours: 72

Enables students to become proficient in practical, content and reference skills as well as to improve general comprehension and vocabulary skills. This course is in preparation for the reading proficiency examination. Open Entry/Open Exit.

High School Subjects - Reading 093
Building Reading Skills 1

Credit(s): 5

Class Hours: 72

Provides an opportunity for skill development in word recognition, comprehension, study and content reading skills necessary for success in the High School Subjects program. Computer-aided instruction is included. Open Entry/Open Exit.

High School Subjects - Reading 094
Building Reading Skills 2

Credit(s): 5

Class Hours: 72

Provides an opportunity for skill development in word recognition, general and inferential comprehension, critical thinking, and content reading skills necessary for success in the High School Subjects program. Computer-aided instruction is included. Open Entry/Open Exit.

HIGH SCHOOL SUBJECTS - SOCIAL SCIENCES (HSSOC)

High School Subjects - Social Sciences 215
Introduction to Economics

Credit(s): 5

Class Hours: 72

Introduces the basic concepts of economics. Explores the basic questions of every economic system. Examines money, the role of consumers, workers, businesses, and governments. Open Entry/Open Exit.

High School Subjects - Social Sciences 218
U.S. History 1: Colonization to Industrialization

Credit(s): 5

Class Hours: 72

Surveys events, movements, and personalities in United States history from colonial period through reconstruction, westward expansion, and industrialization. Includes immigration, plight of Native and African Americans, reform movements, and geographical influences in the history of the United States. Open Entry/Open Exit.

High School Subjects - Social Sciences 219
U.S. History 2: The Shaping of Modern America

Credit(s): 5

Class Hours: 72

Examines United States history from the beginning of industrialization to present. Emphasizes the emergence of America on the international, economic, geographical, social and political scene. (Recommended for students who have completed U.S. History 1 or equivalent.) Open Entry/Open Exit.

High School Subjects - Social Sciences 221
Psychology

Credit(s): 5

Class Hours: 72

Provides students with knowledge of the basic principles of psychoanalysis, behaviorism, the interpersonal model, humanism, existentialism and phenomenology as well as other concepts applied to the self. Open Entry/Open Exit.

High School Subjects - Social Sciences 222
Government 1: U.S. Federal Government and Politics

Credit(s): 5

Class Hours: 72

Examines the development of the federal government from colonial times, the structure of the contemporary government, and the economic, social and political influence on American citizens and their civic duties and responsibilities. Open Entry/Open Exit.

High School Subjects - Social Sciences 223
Government 2: State and Local Government

Credit(s): 5

Class Hours: 72

Examines the diversity of California's geography, economy, and population as well as knowledge of California's history and constitutional development. Explores voters' roles in state and local politics. Open Entry/Open Exit.

High School Subjects - Social Sciences 224
World Geography 1A

Credit(s): 5

Class Hours: 72

Provides a basic foundation for understanding physical geography and the cultural and economic variables in relationship with the earth and its history. Introduces Northern America, Latin America, Europe, and Russia. Includes geography skills such as map reading, interpretation of graphs and diagrams, and map identification. Open Entry/Open Exit.



High School Subjects - Social Sciences 225 World Geography 1B

Credit(s): 5

Class Hours: 72

Provides an overview of certain areas of the world in terms of their physical, cultural, historical and economic geography. Introduces North Africa, the Middle East, Africa south of the Sahara, the Asian Region, and the Pacific World. Includes geography skills such as map reading, interpreting graphs, and analyzing data from a chart. Open Entry/Open Exit.

High School Subjects - Social Sciences 228 World History

Credit(s): 5

Class Hours: 72

Offers the student a chronological understanding of world history in a sequence of events from the time before hominids became fully human, to the introduction to the new millennium. Addresses culture and geography in the context of world history. Open Entry/Open Exit.

High School Subjects - Social Sciences 231 Modern World History 1

Credit(s): 5

Class Hours: 72

Provides students with a study of the major events that shaped the modern world from the eighteenth century through the First World War. Students will trace the rise of democratic ideas and develop an understanding of the historical roots of current world issues.

High School Subjects - Social Sciences 232 Modern World History 2

Credit(s): 5

Class Hours: 72

Provides students with a study of the major events that shaped the modern world, from the end of the First World War to the present. Students will develop an understanding of current world issues and relate them to their historical, geographic, political, and economic contexts.

HIGH SCHOOL SUBJECTS- NATURAL SCIENCES (HSSCI)

High School Subjects- Natural Sciences 170 Biology 1A

Credit(s): 5

Class Hours: 72

Provides instruction in energy and the chemistry of life, cell structure and specialization, and genetics and evolution. Students will also participate in virtual dissections of a worm and a crayfish. Open Entry/Open Exit.

High School Subjects- Natural Sciences 171 Biology 1B

Credit(s): 5

Class Hours: 72

Provides instruction in ecology, plant anatomy, diversity of life, and the animal kingdom. Students will also participate in the virtual dissection of a frog and a pig. Open Entry/Open Exit.

High School Subjects- Natural Sciences 180 Introduction to Biology

Credit(s): 5

Class Hours: 72

This is a first semester course in biology that introduces the process of scientific investigation and the formation and development of a cell. Class activities emphasize direct instruction, lab investigations, and individual and group assignments.

High School Subjects- Natural Sciences 185 Earth Science 2

Credit(s): 5

Class Hours: 72

Provides instruction in the principles and concepts of earth science. The earth's processes and place in the universe will be examined. Open Entry/Open Exit.

High School Subjects- Natural Sciences 186 Life Science 2

Credit(s): 5

Class Hours: 72

Surveys the principles and concepts of life science: the study of organisms and their environment. Animals, human life, heredity, and ecology will be examined. Open Entry/Open Exit.

High School Subjects- Natural Sciences 188 Earth Science 1

Credit(s): 5

Class Hours: 72

Provides instruction in the principles and concepts of earth science. The earth's matter and features will be examined. Open Entry/Open Exit.

High School Subjects- Natural Sciences 189 Life Science 1

Credit(s): 5

Class Hours: 72

Surveys the principles and concepts of life science: the study of organisms and their environment. Cells, animals, plants, protists, human life, heredity, and ecology will be examined. Open Entry/Open Exit.

High School Subjects- Natural Sciences 190 Physical Science 1

Credit(s): 5

Class Hours: 72

Surveys the principles and concepts of physical science, including matter, energy, and their relationship. Examines measurement and motion, classification of matter, light, sound, and energy. Open Entry/Open Exit.

High School Subjects- Natural Sciences 191 Physical Science 2

Credit(s): 5

Class Hours: 72

Surveys the principles and concepts of physical science, including matter, energy, and their relationship. Examines measurement and motion, classification of matter and light, sound, electricity and energy sources. Open Entry/Open Exit.

High School Subjects- Natural Sciences 192 Basic Science 1

Credit(s): 5

Class Hours: 72

Surveys basic principles and concepts of general science including earth, space and physical science. Examines minerals, rocks, the atmosphere, weather, climate, and the earth in space. Discusses properties and classes of matter, Newton's Laws of Motion, energy and energy resources. Open Entry/Open Exit.

High School Subjects- Natural Sciences 193 Basic Science 2

Credit(s): 5

Class Hours: 72

Surveys principles and concepts of life and ecological science. Examines life structure and classification, cellular processes, heredity, evolution, body systems, plants, ecology, and conserving resources. Open Entry/Open Exit.

High School Subjects- Natural Sciences 196 Health Science

Credit(s): 5

Class Hours: 72

Provides a basic foundation in personal health, nutrition, body functions, first aid and community health. Open Entry/Open Exit.

High School Subjects- Natural Sciences 197 Human Anatomy & Physiology I

Credit(s): 5

Class Hours: 72

Provides students with a first semester course concentrating on anatomical terminology, body directions, and the following systems: tissues, integumentary (skin), skeletal, nervous, and special senses. Diverse learning activities are used in the classroom to develop a variety of skills.

High School Subjects- Natural Sciences 198 Human Anatomy and Physiology II

Credit(s): 5

Class Hours: 80

Provides students with a second semester course concentrating on anatomical terminology, body directions, and the following systems: muscular, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive. Diverse learning activities are used in the classroom to develop a variety of skills.



HOME ECONOMICS (HOMEC)

Home Economics 520
HSS Consumer Education
 Credit(s): 0.5 - 7.5
 Class Hours: 24-360

Prepares students in the rigors of understanding consumerism in the free world market area today. Topics include banking, credit, financial planning, insurance, money management, employment, real estate and housing, taxes, and other consumer interests. Open Entry/Open Exit.

PARENT EDUCATION (PRNT)

Parent Education 528
Increasing Parent Awareness of U.S. Schools
 Credit(s): 0
 Class Hours: 132

Develops awareness of school systems in the United States. Introduces content standards and expectancies for different grade levels. Includes teaching and learning processes, strategies to support school children at home, pre-collegiate preparation of children, and college options. Open Entry/Open Exit.

Parent Education 558
Early Childhood Care and Development For Family Child Care Providers
 Credit(s): 0
 Class Hours: 84

Provides knowledge about the care and development of young children for family child care providers seeking state licensing. Open Entry/Open Exit.

Parent Education 562
Health Education for Family Child Care Providers
 Credit(s): 0
 Class Hours: 24

Provides potential family child care providers with health information and certification required for licensing. Open Entry/Open Exit.

SECONDARY SUBJECTS GED (HSGED)

Secondary Subjects GED 031
GED Test Preparation
 Credit(s): 0
 Class Hours: 360

Provides pre- and post-testing and individualized prescriptive instruction in preparation for the GED test. Covers test-taking strategies and the fundamentals of social studies, mathematics, science, writing, and reading. Open Entry/Open Exit.

SUBSTANTIAL DISABILITIES (SSD)

Substantial Disabilities 350
Signing Exact English for Parents of Deaf Children
 Credit(s): 0
 Class Hours: 50-60

Designed as an introductory course to teach Signing Exact English and the manual alphabet. Open Entry/Open Exit.

Substantial Disabilities 400
Developmentally Disabled Adults Job Coach Training
 Credit(s): 0
 Class Hours: 180-244

Job Coach instruction/training to assist developmentally disabled adults. Students will acquire the necessary skills to instruct/train developmentally disabled clients. Open Entry/Open Exit.

Substantial Disabilities 495
Personal Development & Grooming for Developmentally Disabled Adults
 Credit(s): 0
 Class Hours: 65-95

Provide adults with developmental disabilities tools to learn and practice positive interpersonal skills, appropriate social interaction and daily personal grooming habits. Open Entry/Open Exit.

Substantial Disabilities 788
Independent Living Skills for Adults With Developmental Disabilities
 Credit(s): 0
 Class Hours: 180

Assists adults with developmental disabilities to attain a higher functional level for independent living in these areas: health and nutrition, personal appearance, communication, manners, money management, safety and consumer awareness, transportation, social interaction and practical reading, writing and math skills related to home and community settings. Open Entry/Open Exit.

VOCATIONAL - BUSINESS (VBUS)

Vocational - Business 118
Introduction to Windows
 Credit(s): 0
 Class Hours: 60

Provides introductory instruction for learning MS Windows. Introduces students to Windows: navigation, views, commands, file management, desktop customization, Help and other Windows programs, for example, address book and electronic communications. This course or Introduction to Keyboarding & Basic Windows is highly recommended prior to taking other courses taught within the Windows environment. Open Entry/Open Exit.

Vocational - Business 123
Introduction to Computer Software Applications
 Credit(s): 0
 Class Hours: 72

Provides introductory instruction on industry-standard computer applications and technology used for word processing, spreadsheets, databases, presentations, Internet access, and graphics for example, MS Word, MS Excel, MS PowerPoint, Internet Explorer, Keyboarding, MS Publisher, Adobe Photoshop, Adobe Illustrator, Flash, and others. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 124
Introduction to Keyboarding I
 Credit(s): 0
 Class Hours: 32

Provides introductory instruction for keyboarding by touch and skill building drills to achieve speed and accuracy. Two high school elective credits may be granted if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 125
Introduction to Keyboarding II
 Credit(s): 0
 Class Hours: 45

Provides introductory instruction for keyboarding by touch and basic document editing and word processing. Recommended completion of Introduction to Keyboarding I or skills of at least 28 words per minute on timed test. Three High School elective credits may be granted if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 243
Introduction to Customer Service Skills
 Credit(s): 0
 Class Hours: 72

Provides basic training in customer service techniques, appropriate telephone etiquette, self-management, interpersonal relations, and attitude and initiative needed to succeed in the workplace. Beginning ESL 3 level or above recommended. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

**Vocational - Business 244****Intro to Databases Using Microsoft Access**

Credit(s): 0

Class Hours: 60

Introductory course for developing simple databases. Includes design concepts, use of database tools, and practice in creating tables, queries, forms, and reports. Recommended for students in ESL Beginning 3 and above who have completed a basic computer operations course. Open Entry/Open Exit.

Vocational - Business 245**Introduction to Desktop Publishing Using Microsoft Publisher**

Credit(s): 0

Class Hours: 72

Provides students with basic skills to create publications such as flyers, newsletters, brochures, and invitations with Microsoft Publisher. Content will include demonstration, instructor-led exercises, and independent practice. Keyboarding experience recommended. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 258**Navigating the Internet**

Credit(s): 0

Class Hours: 60

Introduces students to the Internet. Topics include types of internet connections, email, research, and data retrieval techniques. Open Entry/Open Exit.

Vocational - Business 259**Orientation to Computers**

Credit(s): 0

Class Hours: 72

Provides hands-on experience and knowledge in using a computer. Includes fundamental information on hardware and software and how they work together. Students will learn how to use basic computer applications. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 260**Introduction to Word Processing Using MS Word**

Credit(s): 0

Class Hours: 60

Provides introductory instruction to word processing techniques using a personal computer. Includes the creating, formatting, editing, saving, and printing of simple documents, using the MS Word software. Designed for students who can type by touch. Open Entry/Open Exit.

Vocational - Business 262**Introduction to Spreadsheets Using MS Excel**

Credit(s): 0

Class Hours: 60

Provides instruction in basic spreadsheet concepts using typical spreadsheet problems with Microsoft Excel software. Designed for students who have completed a basic computer operations course or equivalent. Open Entry/Open Exit.

Vocational - Business 270**Introduction to Microsoft Outlook**

Credit(s): 0

Class Hours: 72

Students will learn the basics to manage and organize emails, calendars and contact information. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 301**Business Skills**

Credit(s): 0

Class Hours: 288

Includes keyboarding, filing, ten-key, spelling, written communications, Internet communications, accounting procedures and other related new business technology applications. Recommended for ESL Beginning 3 level or equivalent. Open Entry/Open Exit.

Vocational - Business 302**Introduction to Web Page Development Using HTML**

Credit(s): 0

Class Hours: 60

Provides introductory instruction to web page development. Topics include web page design elements: HTML; graphic images, movie and sound formats; and testing pages on cross platforms. Designed for students who have completed a basic computer course or equivalent. Open Entry/Open Exit.

Vocational - Business 303**Introduction to Electronic Imaging Using Adobe Photoshop**

Credit(s): 0

Class Hours: 60

Provides introductory instruction to electronic imaging using Adobe Photoshop software. Topics include beginning Photoshop features, scanner basics, image and file formats, color, importing/exporting of files, and printing. Designed for students who have completed a basic computer operations course or equivalent. Open Entry/Open Exit.

Vocational - Business 304**Introduction to Electronic Presentations Using Powerpoint**

Credit(s): 0

Class Hours: 60

Provides introductory instruction for development of professional quality, computer-generated presentations using presentation software used in industry. Includes concepts of combining text, graphics, animations and/or sound to create slides for electronic output. Designed for students who have completed a basic computer operations course or equivalent. Open Entry/Open Exit.

Vocational - Business 400**Employability Skills**

Credit(s): 0

Class Hours: 72

Provides students with training on professionalism and communication skills at the workplace. Helps create a career path and goals, exploring various techniques for conducting a job search, writing a resume and cover letter, interviewing techniques, and job-retention strategies. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 450**Hardware & Software A+ Preparation, Review, and Practice**

Credit(s): 0

Class Hours: 72

Course provides instruction in computer hardware and software preparation, review, and practice for taking the A+ certification test. Training includes review and practice of upgrading, troubleshooting, and repair of computers; setting up home and small office networks; installation and familiarization of various Operating Systems; Applications, and Utilities. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 559**Business Practices in Family Child Care**

Credit(s): 0

Class Hours: 36

Provides potential family child care providers with information and skills necessary for successful operation of a family child care business. Open Entry/Open Exit.

**Vocational - Business 574****Computer Basics: Hardware & Software**

Credit(s): 0

Class Hours: 192

Provides instruction in maintenance, repair, and upgrading of personal computers. Emphasizes functional operations of hardware and software components. Includes hands-on experience with upgrading and repair of computers. Upon completion of course requirements a student may be awarded 5 elective credits. Open Entry/Open Exit.

Vocational - Business 576**Computer Basics: Systems and Networking Essentials**

Credit(s): 0

Class Hours: 90

Course provides baseline level of knowledge for networking certifications, including MCSA, MCSE, CNA and CCNA designations. The focus is also on networking operating systems including Microsoft Windows and Linux. This class is for students with knowledge of computer repair and troubleshooting. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 590**Introduction to How to Start a Small Business**

Credit(s): 0

Class Hours: 72

Provides an introductory series of classes focusing on specific topics addressing the needs of individuals desiring to start a small business. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Business 668**Introduction to Automotive Vehicle Maintenance**

Credit(s): 0

Class Hours: 72

Provides an introduction to the modern automobile and normal maintenance service procedures. Safety, tools and vehicle systems will be emphasized. This class will stress a practical approach to vehicle maintenance. May award five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

VOCATIONAL - CONSTRUCTION (VCNST)**Vocational - Construction 610****Voc Construction Tech Module I**

Credit(s): 0

Class Hours: 88

Provides basic introduction to construction technology including Occupational Safety and Health Administration (OSHA) standards, first aid, and the proper use of hand and power tools. Introduces basic theory and tools for use in concrete and electrical work. May earn five high school credits if student completes all the required assignments with a minimum passing grade of 75%.

Vocational - Construction 620**Vocational Construction Technology Module II**

Credit(s): 0

Class Hours: 192

Provides basic instruction with practical experience in building foundations, framing, and installing drywall, including completion of project(s). Recommended for those who have completed Vocational Construction Technology Module I, or those who have the instructor's approval by standard assessment. May earn five high school credits if student completes all the required assignments with a minimum passing grade of 75%.

VOCATIONAL - HEALTH (VHLTH)**Vocational - Health 895****Paraprofessional Mental Health Worker I**

Credit(s): 5

Class Hours: 96

Provides basic skills for general employment as paraprofessional mental health workers. Helps students gain employment, find housing, use community resources, and become financially competent. Promotes an independent life-style. May earn five high school elective credits if student completes all required assignments with a minimum passing grade of 75%. Recommended for Intermediate 2 and above. Open Entry/Open Exit.

Vocational - Health 896**Paraprofessional Mental Health Worker II**

Credit(s): 0

Class Hours: 128

Provides students with basic case management skills for employment as paraprofessional mental health workers. Recommended completion of Paraprofessional Mental Health Worker I. Recommended English proficiency level Intermediate 2 and above. May earn five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.

Vocational - Health 897**Paraprofessional Mental Health Worker III**

Credit(s): 0

Class Hours: 128

Provides students with basic facilitation and counseling skills for employment as paraprofessional mental health workers. Focuses on group and peer counseling. Recommended completion of Paraprofessional Mental Health Worker I. Recommended English proficiency Intermediate 2 and above. May earn five high school elective credits if student completes all the required assignments with a minimum passing grade of 75%. Open Entry/Open Exit.





SANTA ANA COLLEGE

ADMINISTRATORS AND FACULTY



SANTA ANA COLLEGE ADMINISTRATORS

Abejar, Esmeralda (2005)

Campus Budget Manager
B.A., California State University, Fullerton

Bridges, Avie (1998)

Dean, Kinesiology
B.S., Judson College
M.A., Tennessee Tech University

Bryant, Micki (2006)

Dean, Counseling
B.A., Stanford University
M.B.A., University of California, Los Angeles
Ph.D., California School of Professional Psychology
(Alliant University)

Carrera, Cher (2002)

Interim Dean, Science, Mathematics, and Health Sciences
B.A., M.A., California State University, Fullerton
M.A., Claremont Graduate University
Ed.D., Argosy University, Costa Mesa

Coopman, Ron (2013)

Interim Assistant Dean, Criminal Justice Academies
B.S., University of La Verne
M.S., California State University, Long Beach

Collins, Michael T. (2012)

Vice President, Administrative Services, Santa Ana College
B.S., Syracuse University, New York
M.P.H., California State University, Long Beach
Ed.D., University of Southern California

DeRosa, Sherry (2014)

Associate Dean, Disabled Students Programs and Services (DSPS)
B.A., Sierra University
M.A., University of Southern Maine

Dooley, Allen (2011)

Dean, Business Division
B.S., M.B.A., California State University, Los Angeles
M.P.W., Ed.D., University of Southern California

Dominguez, Gary (2013)

Director of Fire Instruction
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Finch, John (2006)

Assistant Dean, Criminal Justice Academies, Public Administration
B.A., University of Redlands
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Hoffman, Bart (2005)

Dean, Human Services and Technology, Career Education and Workforce Development
B.S., Business Administration, California State University, Long Beach
MBA, University of Phoenix

Jaffray, Shelly (1991)

Dean, Humanities/Social Science
B.A., M.A., California State University, Fullerton

Kennedy, James (2007)

Vice President, School of Continuing Education, Santa Ana College
B.A., Sonoma State University
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Kikawa, Eve (1982)

Interim Dean, Fine and Performing Arts/Neally Library Division
B.A., M.A., University of California, Los Angeles

Kosko, Christine (2011)

Associate Dean, Instruction and Student Services, Santa Ana College/School of Continuing Education
B.S., University of Phoenix
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Associate Dean, EOPS/CARE and CalWORKs
B.A., University of California, Los Angeles
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Liang, Mark (2006)

Associate Dean, Admission and Records
B.A., California State University, Fullerton
J.D., Trinity International University, School of Law

Lipiz, Nilo (1996)

Dean, Instruction and Student Services, Santa Ana College/School of Continuing Education
B.A., California State University, Fullerton
M.A., TESOL, Bilingual Education, California State University, Los Angeles
M.A., Education Administration, California State University, Los Angeles

Lundquist, Sara (1982)

Vice-President, Student Services, Santa Ana College
B.A., University of Pennsylvania
M.S., University of La Verne
Ph.D., Claremont Graduate University

Mahany, Donald (2008)

Assistant Dean, Fire Technology
B.A., University of Redlands
M.S., California State University, Long Beach

Manson, Robert (2006)

Associate Dean, Financial Aid
M.B.A., Chapman University

Martinez, Erlinda J. (2005)

President, Santa Ana College
B.A., Sociology, University of California, Riverside
M.S., Counselor Education, California State University, Los Angeles
Ed.D., Higher Education, University of Southern California

Miller, Rebecca (1990)

Associate Dean, Health Sciences
B.S.N., California State University, Long Beach
M.S.N., California State University, Dominguez Hills

Nashua, Loy (2007)

Associate Dean, Student Development
B.A., Whittier College
M.S., Claremont Graduate University
J.D., La Verne College of Law

Rose, Linda (2011)

Vice President, Academic Affairs, Santa Ana College
A.A., West Los Angeles College
B.A., M.A., California State University, Dominguez Hills
Ed.D., University of California, Los Angeles



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Dean of Instruction and Student Services,
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 A.A., Santa Ana College
 B.A., California State University, Fullerton
 M.S., San Diego State University
 Ph.D., University of California, Los Angeles

Tanakeyowma, Lilia (1998)
Dean, Student Affairs
 B.A., University of California, Irvine
 M.S., California State University, Fullerton
 Ed.D., University of California, Irvine

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Abbey, Troy (2001)
Professor, Kinesiology
 B.A., California State University, Long Beach
 M.A., Azusa Pacific University

Andrade, Philippe (2007)
Associate Professor, Political Science
 B.A., California State University, Long Beach
 Ph.D., Claremont Graduate University

Anthony, Mary Anne (1976)
Professor, Mathematics
 B.A., University of California, San Diego
 M.S., California State University, San Diego
 M.S., Pepperdine University

Aguilar Beltran, Maria (2009)
Coordinator, Associate Professor, Disabled Student Programs and Services
 B.A., Cal Poly Pomona
 M.S.W., California State University, Long Beach
 L.D., Certificate, California State University, Sacramento

Argo, Rose (1996)
Professor, Fire Technology
 B.A., M.A., California State University, Long Beach

Bales, Terry W. (1971)
Professor, TV/Video Communications
 B.A., M.A., University of Southern California

Barnard, Rebecca (2012)
Coordinator, Health and Wellness Center
 B.S.N., Point Loma Nazarene University
 M.S.N., Azusa Pacific University

Bass, Stacey (2006)
Associate Professor, Nursing
 B.S.N., Loma Linda University
 M.S.N., California State University, Long Beach

Bassett, Dana (2001)
Professor, English
 B.A., M.A., California State University, Fullerton

Bautista, Steve (2001)
Counseling
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Beltran, Jennie (2014)
Assistant Professor, Biology
 B.S., University of California, Irvine
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Bennett, Gary (1998)
Professor, English
 B.A., M.A., California State University, Fullerton
 Ph.D., University of Nevada at Las Vegas

Benson, Kyla (2013)
Assistant Professor, Fashion Design Merchandising, Nutrition and Foods and Culinary Arts
 B.S., University of California, Davis
 M.A., Trident University International

Beyersdorf, Matthew A. (2006)
Associate Professor, English
 B.A., M.A., Chapman University
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Birnbaum, Beverly (1974)
Coordinator, Testing Center
 B.A., University of California, Berkeley
 M.S., California State University, Long Beach
 M.B.A., University of California, Irvine

Blake, Sherri (2011)
Counseling
 A.A., Santa Ana College
 B.S., California State University, Fullerton
 M.A., California State University, Dominguez Hills

Bowers, Cherie (2005)
Associate Professor, Mathematics
 A.A., Cypress College
 B.A., California State University, Long Beach
 M.A., University of Southern California

Bradley, Kyle (2014)
Assistant Professor, Mathematics
 B.A., California State University, Fullerton
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Brandon, Kelly (1989)
Professor, English
 B.A., University of California, Los Angeles
 M.A., University of California, Santa Barbara

Breig, David B. (2002)
Professor, Kinesiology
 A.A., Cerritos College
 B.A., Seattle Pacific University
 C.C.T.C., California State University, Dominguez Hills
 M.S., California State University, Fullerton

Brown, Angela T. (2001)
Counseling
 A.A., Citrus College
 B.S., University of California, Riverside
 M.A., California State University, San Bernardino

Brown, Laurence S. (1996)
Professor, Communication Studies
 A.A., Long Beach City College
 B.A., M.A., California State University, Long Beach

Budarz, Timo (2005)
Associate Professor, Physics
 B.S., Ph.D., Purdue University

Campbell, Alondo C. (2013)
Assistant Professor, Anthropology, Sociology, and Women's Studies
 A.A., Golden West College
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 Ph.D., Purdue University

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B.S., California State University, Fullerton

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Cannon, Chris (2011)*Assistant Professor, Theatre Arts*

B.A., Southeastern University

M.I.F.A., University of Virginia

Canzona, Paula (1998)*Counseling*

B.S., University of Redlands

M.A., California State University, Dominguez Hills

Castellanos, Mary (1979)*Counseling*

B.A., California State University, San Diego

M.S., California State University, Fullerton.

Ph.D., United States International University

Castillo, Ricardo (2011)*Assistant Professor, Psychology*

B.A., California State University, Bakersfield

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Clark, Stephanie (2014)*Assistant Professor, Art*

B.A., Rice University

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Coffman, Jodi (2000)*Counseling*

B.A., University of California, Santa Barbara

M.A., California State University, San Diego

M.Ed., University of San Diego

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Coliflores, Rowena (2007)*Associate Professor, Nursing*

B.S.N., M.S.N., California State University, Fullerton

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Collins, Monica (2006)*Coordinator, American Sign Language Program,**Deaf and Hard of Hearing Program*

B.S., Illinois State University

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Colunga, Molly (2002)*Professor, Reading*

B.A., M.S., California State University, Fullerton

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Courter, William (1996)*Professor, Geography*

A.A., Long Beach City College

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Coyne, Claire M. (2006)*Associate Professor, Earth Science/Geology*

B.S., University of Maryland, College Park

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Crabb, Patrick (1976)*Professor, Art*

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Dahlen, Noel (1981)*Professor, Computer Science*

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Dennis, Karen (1984)*English as a Second Language Coordinator*

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Dethlefsen, Elaine (1991)*Professor, EMT*

A.A., Orange Coast College

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Doolittle, Glenn A. Jr. (1996)*Professor, Global Business and Entrepreneurship*

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Dutton, Donald E. Jr. (1987)*Professor, Assistive Technology*

B.A., M.A., California State University, Fullerton

Dwyer, Dalva (2001)*Professor, ESL*

B.A., UNIVAP, Brazil

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Eastmond, T. Stephen (1973)*Professor, Planetarium/Astronomy*

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M.A., Ph.D., University of California, Los Angeles

Emley, Catherine (1998)*Professor, Medical Assisting*

A.A., B.S.N., Mount St. Mary's College, Los Angeles

M.N., Psychiatric Mental Health Nursing

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Ettinger, Becky (2006)*Associate Professor, Nursing*

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Everett, Mike (2002)*Professor, Mathematics*

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Fish, Zachary (2004)*Professor, Philosophy*

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Fondren, Stephanie R. (1996)*Professor, Communication Studies*

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Galván, Javier (1996)*Professor, Spanish*

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 M.A., M.S., Ph.D., University of Southern California
 M.A., California Polytechnic University, Pomona

Garcia, Yolanda (1985)*Professor, Librarian*

B.A., California State University, Long Beach
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Ghelfi, Gerald J. (1963)*Professor, History*

B.A., La Sierra College
 M.A., Ph.D., Claremont Graduate School

Gillette, Heather (1999)*Professor, Dance, Department Chair*

B.F.A., California State University, Long Beach
 M.F.A., University of Utah
 Certified Laban Movement Analyst

Gilmour, Dennis (1991)*Counseling*

A.S., Grossmont College
 B.S., M.S., California State University, San Diego

Gilreath, Genice (1997)*Professor, Reading*

M.A., California State University, San Bernardino

Giroux, Regina A. (1984)*Professor, Nursing*

A.D.N., Cypress College
 B.S.N., California State University, Fullerton
 M.S.N., D.N.Sc., University of San Diego

Goldmann, Dan (1975)*Professor, Biological Sciences*

B.S., M.A., University of California, Los Angeles

Gonis, Andy (2005)*Associate Professor, Criminal Justice*

Ph.D. Candidate, Psychology, North Central University
 Graduate, FBI National Academy

Gonzaga-Siguenza, Patricia (1996)*Counseling*

B.A., M.S., California State University, Fullerton

Grant, Madeline (2001)*Professor, Global Business and Entrepreneurship*

B.A., University of San Diego
 M.B.A., Claremont Graduate School

Guerrero-Phlaum, Martha (2005)*Associate Professor, Spanish*

B.A., M.A., Ph.D., University of California, Irvine

Guzmán, Kristen (2006)*Associate Professor, History/Ethnic Studies*

B.A., University of California, Santa Cruz
 Ph.D., University of California, Los Angeles

Hager, Benjamin (2013)*Assistant Professor, Mathematics*

B.A., M.A., California State University, Fullerton

Haglund, Becky (1984)*Professor, Nursing*

B.S.N., California State University, Los Angeles
 M.N., University of California, Los Angeles

Hammonds, Glen (1996)*Professor, Automotive Technology*

A.S., Rio Hondo College
 B.V.E., California State University, Los Angeles

Hampton, Jubal (2001)*Professor, Biology*

B.S., University of California, Irvine
 M.A., California State University, Fullerton

Harding, Glen (2001)*Professor, Computer Science*

B.A., University of California, Berkeley
 M.S., University of California, Santa Barbara

Hassel, Elissa A. (1996)*Professor, ESL*

B.S., University of California, Davis
 M.A., Biola University

Hester, James (1996)*Professor, Computer Science*

B.S., M.S., Ph.D., University of California, Irvine

Hicks, Raymond (2002)*Professor, ESL*

B.A., Bowling Green State University
 M.A., United States International University
 M.B.A., Heriot-Watt University

Higgins, Mark (1989)*Professor, English*

B.S., St. Vincent College
 M.A., University of Southern California

Hirsch, Rosemarie (1997)*Professor, Nursing*

A.D.N., Golden West College
 B.S.N., California State University, Fullerton
 M.N., University of California, Los Angeles

Holder, Vera (1988)*Professor, Communication Studies*

B.A., California State University, Long Beach
 M.A., California State University, Northridge

Horgan, Linda (2007)*Associate Professor, Nursing*

A.D.N., Cypress College
 B.S.N., Loma Linda University,
 M.S.N., California State University, Long Beach
 PMHNP, California State University, Long Beach

Huebsch, Mary (2001)*Professor, Communication Studies*

B.A., Mount Holyoke College
 M.A., University of California, Los Angeles
 M.A., California State University, Fullerton

Hughes, Philip (1989)*Professor, Earth Science/Geology*

B.S., University of Southern California
 M.S., Ohio State University

Huynh, KC (2006)*Associate Professor, Pharmacy Technology*

Pharm.D., University of Southern California

**Hyman, Deborah (2009)**

Assistant Professor, Occupational Therapy
BSC Honors in Occupational Therapy, University of Witwatersrand
WTOF approved university

Issa, Karim (1972)

Professor, French
B.A., University of California, Riverside
M.A., California State University, Fullerton

Jang, Charles (2014)

Assistant Professor, Biology/Biotech
B.S., California State University, Fullerton
Ph.D., University of California, Riverside

Janus, Louise (2011)

Learning Disability Specialist, Assistant Professor Learning Disabilities
B.A., University of San Diego
M.Ed., Argosy University
L.D. Certificate, California State University, Sacramento

Jaros, Bonita N. (1980)

Professor, English/ESL
B.A., Hunter College
M.A., Cornell University
M.A., California State University, Fullerton,
Certificate in the Teaching of Composition,
University of California, Irvine
M.A., Ph.D., Claremont Graduate University

Jenkins, Crystal (2004)

Professor, Chemistry
B.A., M.S., University of California, San Diego
M.S., California State University, Long Beach

Jenkins, Robert (1996)

ESL
B.S., M.S., TESOL, California State University, Fullerton

Jin, Jungwon (2011)

Assistant Professor, Music
B.M., Juilliard School
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Jones, Elliott (2000)

Professor, Music
B.A., M.M., Arizona State University
D.M.A., University of Miami

Jones, Geoff (2004)

Professor, Kinesiology
B.A., Chapman University
M.A., Azusa Pacific University

Kanzler, Dietrich (1980)

Professor, Manufacturing Technology
A.S., Santa Ana College
B.V.E., California State University, Long Beach

Kashi, Majid (1994)

Professor, Mathematics
B.S., Newcastle Polytechnic, United Kingdom
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Keith, Katharine (1991)

Professor, ESL
B.A., Connecticut College
M.A., University of Wisconsin, Madison

Kehlenbach, E. Brian (1990)

Professor, Music, Department Chair
B.S., M.M., University of Connecticut
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Kim, Henry (2001)

Professor, ESL
B.A., University of Hawaii at Manoa
M.A., California State University, Long Beach

Kossler, Wenona (2000)

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Kushida, Cherylee (1996)

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B.S., University of California, Irvine
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Le, Phi Loan (2006)

Training Director, Psychological Services
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Lechuga, Janet (2013)

Assistant Professor, Mathematics
B.A., M.A., California State University, Fullerton

Leeds, Kelvin (1997)

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B.A., Southern California College
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Lewis, Michael L. (1996)

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B.A., California State University, Fullerton
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Little, Charles (1986)

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B.A., Azusa Pacific University
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Lockhart, Ann (2011)

Counseling
B.S.W., M.S.W., California State University, Long Beach

Lockwood, Lance (2005)

Professor, Communication Studies, Department Chair
A.A., Victor Valley College
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Lopez, David A. (1993)

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B.M., M.M., University of Arizona

Lopez, Jorge (2007)

Associate Professor, Biology
B.S., University of California, Davis
M.S., University of Chicago
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Lopez-Jaurequi, Leticia (1994)

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B.A., Yale University
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Luppani, Flo (2004)

Professor, Kinesiology
B.A., Chapman University
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MacBride-Hart, Christy (1983)

Professor, Mathematics
B.A., University of California, Los Angeles
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Madrigal, Romelia (2002)

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B.A., California State University, San Diego
Educational Counseling
M.A., National University

Mandir, Joshua (2014)

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B.S., University of California, Irvine
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Mansfield, Patricia (1991)

Professor, Biology
B.S., Howard University
Ph.D., University of California, Irvine
Postdoctorate, State University of New York at Stony Brook,
University of California, Irvine

Manzano, Richard (1990)

Professor, Paralegal
A.A., Glendale Community College
B.S., California State University, Los Angeles
J.D., Southwestern University School of Law
Member of California State Bar

Marecek, Lynn (1995)

Professor, Mathematics
B.S., Valparaiso University
M.S., Purdue University
M.A., National University

Marquez, Phil (2011)

Assistant Professor, Art, Department Chair
B.A., California State University, Fullerton
M.F.A., Claremont Graduate University

Marr, John (2014)

Assistant Professor, Music
B.A., M.A., California State University, Fullerton

Martinez, Donato (1996)

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B.A., California State University, Pomona
M.A., California State University, Fullerton

Mathis, Jane (2005)

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B.A., University of California, Irvine
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McClure, Caren F. (1991)

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B.A., California State University, Northridge
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McKowan-Bourguignon, Lisa (2011)

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B.S., M.S., California State University, Long Beach

McMillan, Jeffrey (1992)

Professor, Chemistry
A.A., Santa Ana College
B.S., University of California, Irvine
Ph.D., Princeton University

Meier, Krystal (1997)

Professor, Mathematics
B.A., California State University, Long Beach
M.A., Azusa Pacific
M.A., California State University, Fullerton

Miller, Renee (2006)

Coordinator, Associate Professor ABI/Communication Disabilities
B.A., Speech and Hearing, Cleveland State University
M.A., Speech Pathology, Kent State University

Mitzner, Rita (2006)

Associate Professor, English
B.A., M.A., Creative Writing
M.F.A., California State University, Long Beach

Mixer, Dale (2004)

Professor, Nursing
A.D.N., Cerritos College
B.S.N., California State University, Fullerton
M.S.N., University of Phoenix

Montes, Agustin (1998)

Professor, Economics
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Montiel-Childress, Dena (1997)

Professor, Business Applications and Technology
B.A., California State University, Fullerton
M.B.A., National University
M.A., United States International University

Moore, George (2014)

Assistant Professor, Welding
A.A., Cerritos College

Moreno, George (2007)

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B.S., California State University, Long Beach

Morris, A. Kimo (2011)

Assistant Professor, Biology
B.A., University of California, Santa Barbara
M.Sc., Oregon State University
Ph.D., University of California, Los Angeles

Morris, Marilou (1973)

Professor, Communication Studies
B.A., University of California, Riverside
M.A., Linguistics, California State University, Fullerton
M.A., Speech Communication, California State University, Fullerton

Morris-Pfyl, Sandra (1986)

Career Specialist, Workability III/ Career /Job Resource Center, Special Services
B.A., University of California, Los Angeles
M.A., Whittier College

Mowrer, Melanie (2002)

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B.A., Moravian College, Bethlehem, PA
M.A., United States International University, Irvine, CA
TESOL Certificate, University of California, Irvine

Murphy, Tim (2000)

Professor, Political Science
B.S., M.A., Ball University
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Nguyen, Madeleine (1996)

Counseling
B.A., California State University, Fullerton
M.A., California State University, Dominguez Hills

Nguyen, Michael T. (2001)

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B.S., M.A., California State University, Los Angeles

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Nguyen, William (2003)*Professor, Chemistry*

A.S., Santa Ana College

B.S., Ph.D., University of California, Los Angeles

Nichols, Bruce (1990)*Professor, Computer Science*

B.A., Whittier College

M.S., California State University, Fullerton

Nick, JoAnn (1996)*Professor, Nursing*

B.S.N., South Dakota State University

M.S.N., California State University, Long Beach

Nutter, Kim (1991)*Professor, Kinesiology*

B.S., California Polytechnic University, Pomona

M.A., California State University, Dominguez Hills

Nyssen, Adam (2013)*Assistant Professor, Kinesiology*

M.A., Azusa Pacific University

M.A., San Diego State University

Oertel, Patricia (2008)*Associate Professor, Biology*

B.S., California State University, Long Beach

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Orr, Estelle C. (1970)*Professor, Art*

B.A., M.A., University of California, Berkeley

Ortiz, Fernando D. (1996)*Professor, Psychology/Ethnic Studies*

B.A., California State University, Fullerton

M.A., Ph.D., University of California, Riverside

Parolise, Michelle R. (2000)*Professor, Occupational Therapy Assistant Program*

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Patterson, Kathleen (1996)*Professor, English*

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Patton, Carrie (2013)*Assistant Professor, High School Subjects*

B.A., St. Mary's College

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Paunovic, Mila (2006)*Associate Professor, Nursing*

B.S.N., Loma Linda University

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Pedroza, Jeffrey (2001)*Psychology*

B.S., M.S., Eastern Michigan University

Pedroza, Luis (1994)*Professor, Librarian, Department Co-Chair*

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Polanco-Zook, Rochelle (2001)*Counseling*

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Ramshaw, Charles (2001)*Professor, English*

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Robledo, Rey (2005)*Counseling*

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Rogers, Neal L. (1973)*Professor, Mathematics*

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SANTA ANA COLLEGE

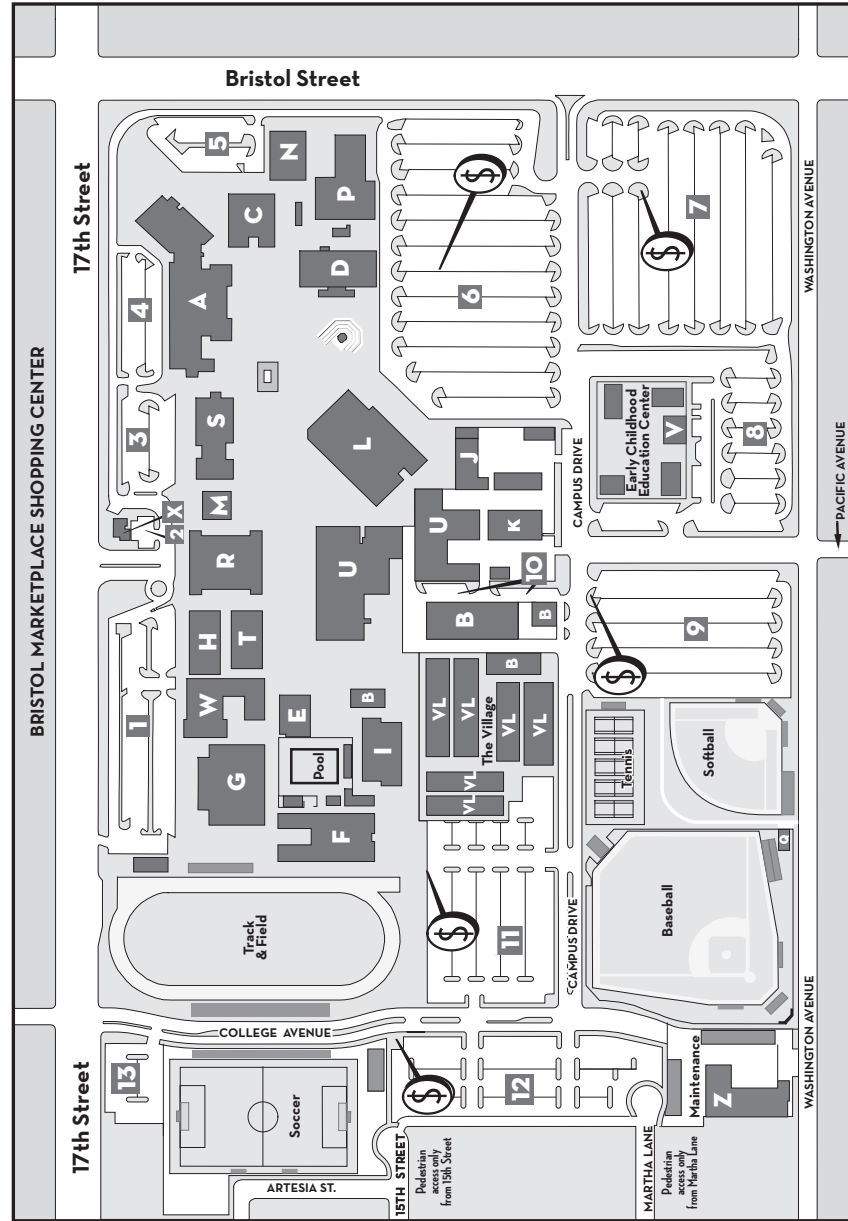
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SAC Facilities and Locations

- A** Cesar Chavez Building /Business / Computer Lab
- B** Middle College High School
- C** Fine Arts / Art Gallery
- D** Dunlap Hall / Amphitheatre (w. of bldg.)
- E** Fitness Center
- F** Locker Rooms
- G** Cook Gym
- H** Hammond Hall
- I** Classroom Building
- J** Auto Shop / Quick Center
- K** Welding / Auto Diesel
- L** Nealey Library / Media Services
- M** Planetarium
- N** Music Building
- P** Phillips Hall Theatre
- Q** Concession
- R** Russell Hall
- S** Administration Building / Admissions / Counseling
- T** Technical Arts
- U** Johnson Center / Student Business Office / Bookstore / Cafeteria
- V** Early Childhood Educational Center
- VL** The Village
- W** Kinesiology
- X** Security / Safety
- Z** Maintenance

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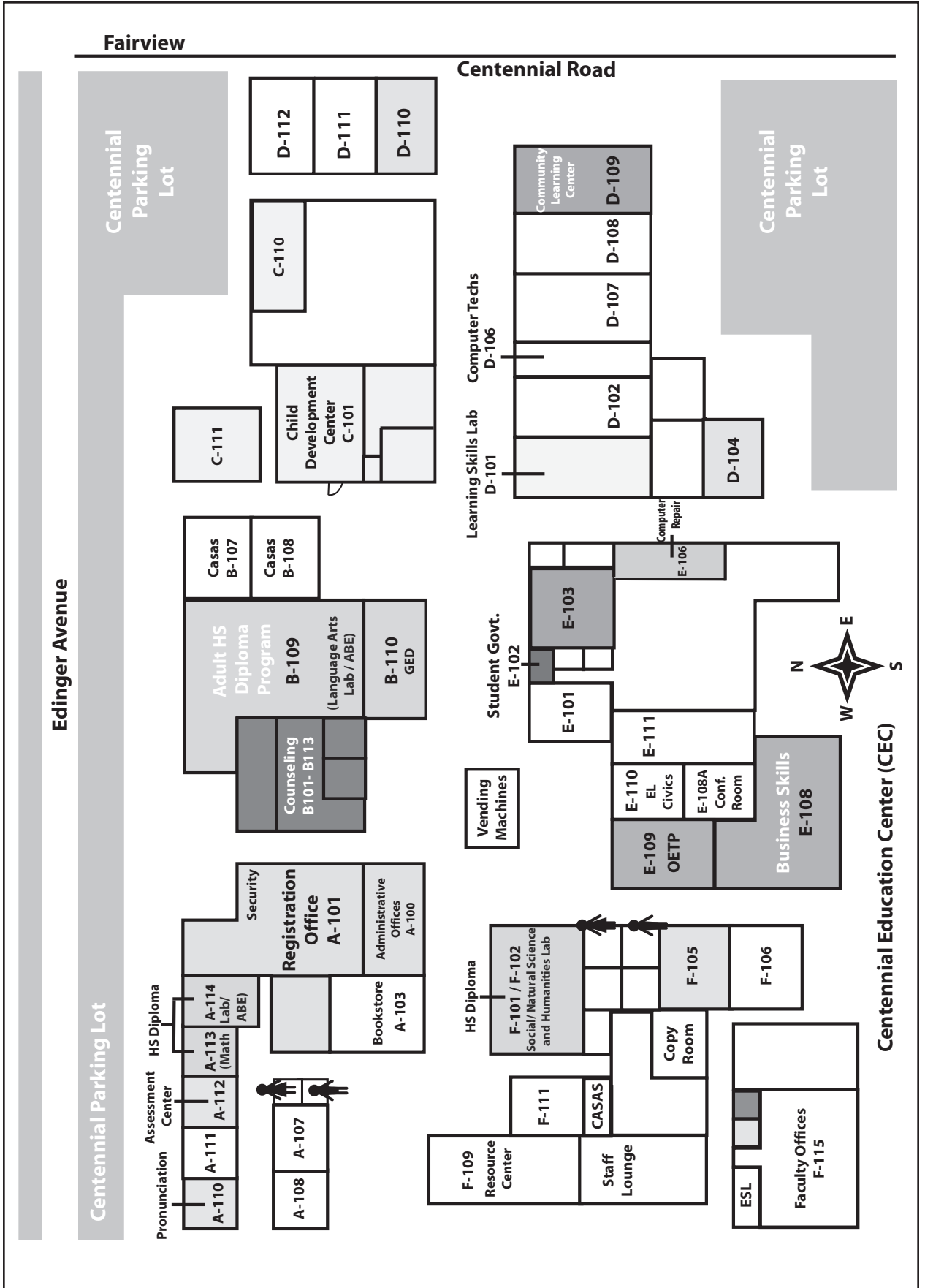
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Notes





Notes







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