

HUMSV 261 A-Z

SELECTED STUDIES IN HUMAN SERVICES:

261A CHILD ABUSE

261B YOUTH COUNSELING

261C FAMILY VIOLENCE

261D SCHOOL VIOLENCE PREVENTION

.25-3.00 UNITS

PREREQUISITE: None.

LECTURE: 4 - 54 hours per semester.

Explores themes that are current and relevant in the areas of Human Services such as Child Abuse, Eating Disorders, Social Work, Mental Health, Corrections, and Community Services. Possible topics include: child/spouse abuse; crisis intervention; youth issues; etc.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

HUMSV 281 A-Z

SELECTED STUDIES IN ALCOHOL/DRUG STUDIES

.25-3 UNITS

281A ADDICTION SEVERITY INDEX (ASI)

281B DUAL DIAGNOSIS

281C COUNSELING IN CRIMINAL JUSTICE SETTING

281D COMMUNITY BASED CRIMINAL JUSTICE PROGRAMS

PREREQUISITE: None.

LECTURE: 4 - 54 hours per semester.

Explores addictions in the areas of Human Services, Alcohol/Drug Counseling, Mental Health, Human Development, and Corrections. Suggested subjects include codependency, driving under the influence, co-occurring disorders, tobacco addiction, and assessment instruments, etc.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

INSPECTION TECHNOLOGY

DIVISION: Applied Technology & Transportation

DIVISION DEAN: Thomas Bauman, M.S., P.E.

DEPARTMENT HEAD: William Kastner, M.S.

Technical 108

(909) 384-8290

DIVISION SECRETARY: Patsy Martinez

(909) 384-8902

DIVISION OFFICE: Technical 108

(909) 384-4451

LIAISON COUNSELOR: Jennifer Mendoza, M.S.

(909) 384-4404

Courses in the Inspection Technology Department are designed to train construction inspectors and contractors who prepare construction for inspection. This training includes the structural, mechanical, and technical aspects of construction. Building, plumbing, electrical, heating and air conditioning codes and related laws are included in INSPEC 013B, 014B, 015B, and 016B. Energy regulations and the perspective of building inspectors are included in INSPEC 017B and 018B. INSPEC 024B and 025B have been developed for civil service employees working in this field.

Students interested in a single subject, such as electrical contractors who want to become more informed about the requirements of the electrical code, may take individual courses without prerequisites. Students seeking a certificate or an associate degree in this discipline must complete the sequence of required courses described.

INSPECTION TECHNOLOGY

ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Inspection Technology, students must complete the following required courses for the certificate plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

INSPECTION TECHNOLOGY CERTIFICATE

This certificate is designed to prepare students for entry-level employment in construction inspection, examining the construction, alteration, or repair of buildings and other structures to ensure compliance with building codes and ordinances, zoning regulations, and contract specifications. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:

		UNITS
INSPEC 010	Fundamentals of Construction Inspection I	3
INSPEC 011	Fundamentals of Construction Inspection II	3
INSPEC 012	Fundamentals of Construction Inspection III	3
INSPEC 013B	Advanced Construction Inspection: Uniform Building Code	3
INSPEC 014B	Advanced Construction Inspection: National Electrical Code	3
INSPEC 015B	Advanced Construction Inspection: Uniform Plumbing Code	3
INSPEC 016B	Advanced Construction Inspection: Uniform Mechanical Code	3
INSPEC 017B	California State Energy Regulations for Residential Buildings	3
INSPEC 018B	California State Energy Regulation for Non-Residential Buildings	3
INSPEC 024B	Community Relations for Civil Service Employees	3
INSPEC 025B	Communication and Enforcement	3
INSPEC 026B	Non-Structural Plan Review	3
TOTAL UNITS:		36

COURSES OFFERED BY THE DEPARTMENT OF INSPECTION TECHNOLOGY:

INSPEC 010A

FUNDAMENTALS OF CONSTRUCTION INSPECTION I 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

A basic study of soils engineering, soils construction methods, soils identification, and soils terminology and nomenclature.

Associate Degree Applicable

INSPEC 011A

FUNDAMENTALS OF CONSTRUCTION INSPECTION II 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: INSPEC 010A.

LECTURE: 3 hours per week.

A basic study of concrete and asphalt including cements, aggregates, admixtures, job and batch, control, properties of concrete, finishing, curing, and reinforcing.

Associate Degree Applicable

INSPEC 012A
FUNDAMENTALS OF CONSTRUCTION INSPECTION III 3 UNITS

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: INSPEC 011A.

LECTURE: 3 hours per week.

A basic study of structures, including wood, steel, and masonry construction, building occupancies, construction and separations, acoustics and sound control.

Associate Degree Applicable

INSPEC 013C
ADVANCED CONSTRUCTION INSPECTION:
UNIFORM BUILDING CODE 3 UNITS

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: INSPEC 012A.

LECTURE: 3 hours per week.

Study of the Uniform Building Code for inspectors, including application, interpretation, and use of the code.

Associate Degree Applicable

INSPEC 014C
ADVANCED CONSTRUCTION INSPECTION:
NATIONAL ELECTRICAL CODE 3 UNITS

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: INSPEC 012A.

LECTURE: 3 hours per week.

The interpretation and use of the National Electrical Code.

Associate Degree Applicable

INSPEC 015BC
ADVANCED CONSTRUCTION INSPECTION:
UNIFORM PLUMBING CODE 3 UNITS

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: INSPEC 012A.

LECTURE: 3 hours per week.

The interpretation and use of the Uniform Plumbing Code.

Associate Degree Applicable

INSPEC 016C
ADVANCED CONSTRUCTION INSPECTION:
UNIFORM MECHANICAL CODE 3 UNITS

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: INSPEC 012A.

LECTURE: 3 hours per week.

The interpretation and use of the Uniform Mechanical Code.

Associate Degree Applicable

INSPEC 017C
CALIFORNIA STATE ENERGY REGULATIONS FOR
RESIDENTIAL BUILDINGS 3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Basic compliance with California Title 24 Energy Efficiency Standards for residential buildings. Includes prescriptive and performance methods, such as alternative packages, point systems, and computers.

Associate Degree Applicable

INSPEC 018C
CALIFORNIA STATE ENERGY REGULATIONS FOR
NON-RESIDENTIAL BUILDINGS 3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Basic compliance with California Title 24 Energy Efficiency Standards for non-residential buildings. Includes prescriptive and performance methods such as alternative packages, point systems, and computers.

Associate Degree Applicable

INSPEC 024C
COMMUNITY RELATIONS FOR CIVIL SERVICE
EMPLOYEES 3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Introduction to community relations for civil service employees.

Associate Degree Applicable

INSPEC 025C
COMMUNICATION AND ENFORCEMENT 3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

A basic course in the development of vocabulary, spelling, and grammatical structure for Code Enforcement personnel. This course will be an exploration of potential on the job encounters as an inspector. The legal impact of Correction Notices and Orders to comply will be covered.

Associate Degree Applicable

INSPEC 026C
NON-STRUCTURAL PLAN REVIEW 3 UNITS

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: INSPEC 013C.

LECTURE: 3 hours per week.

Training in the application of the Uniform Building Code to pre-construction drawings, including legal requirements for non-structural plan review, local and community laws applicable to pre-construction drawings, and the use of plan reviews as a first step in performing consistent and thorough inspections.

Associate Degree Applicable

INSPEC 198
INSPECTION TECHNOLOGY WORK EXPERIENCE 1-4 UNITS

PREREQUISITE: None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

JOURNALISM

See the Department of ENGLISH

LIBERAL ARTS ASSOCIATE OF ARTS DEGREE

Division: Instruction Office
 Division Dean: Linda Stevens, Ed.D.
 Vice President, Instruction
 Administrative Assistant: Lisa Gonzales
 Division Office: Administration/
 Student Services 200
 (909) 384-8993
 LIAISON COUNSELOR: Jennifer Mendoza, M.S.
 (909) 384-4404

The Liberal Arts major is an interdisciplinary major that exposes students to various academic disciplines and includes courses from the Sciences, Social Sciences and Humanities. The major is intended for students who want to transfer to a university, or for students who want a general Associate of Arts Degree that reflects broad-based interests rather than the more narrow focus of other majors.

Students may obtain an Associate of Arts Degree in Liberal Arts by completing a minimum of 60 semester units of coursework (of these 60 units, a minimum of 12 units must be taken at SBVC) in addition to meeting one of the following criteria:

1. Completion of all CSU General Education-Breadth requirements, as described on page 35 of the college catalog; or
2. Completion of all IGETC requirements for either the University of California or the California State University systems, as described on page 33 of the college catalog; or
3. Completion of the requirements for Associate Degree Option 2, as described on page 30 of the college catalog, plus a combined total of 18 additional units selected from Category I (Natural Science), Category II (Social and Behavioral Science) and Category III (Humanities).

LIBRARY TECHNOLOGY

DIVISION: Learning Resources
 DIVISION DEAN: Marie Mestas, M.L.S.
 OTHER FACULTY: Celia McKinley-Houston, M.L.I.S.
 Ginny Evans-Perry, M.L.I.S.
 Patricia Wall, M.L.I.S.
 DIVISION SECRETARY: Terry Conboy
 DIVISION OFFICE: Library 210
 (909) 384-8684
 LIAISON COUNSELOR: Ailsa Aguilar-Kitibutr, Psy.D.
 (909) 384-4404

Library skills are fundamental to student success, especially in today's information-laden society. The Library Technology Department offers one course (LIB 110) which is designed to teach students how to access both print and on-line information sources more efficiently and effectively. The remaining Library Technology courses are part of an associate of arts degree or a certificate program designed for students who are interested in working as paraprofessionals in the library field. Taken alone, each course provides entry-level exposure to a particular library department or function. Presently-employed library workers can also take courses to increase their level and

variety of training in the library field. Courses for the program are rotated over a two-semester sequence.

Core competencies emphasized by courses in this department:

- Employ vocabulary of the subject studied.
- Find and interpret information.
- Evaluate authority and bias of information.
- Utilize technology to organize and present information.
- Demonstrate working knowledge of basic computer function.
- Apply learned knowledge to new situations.
- Evaluate own ethical beliefs in relationship to moral dilemmas.
- Work effectively in group settings.

LIBRARY SCIENCE ASSOCIATE OF ARTS DEGREE

To graduate with a specialization in Library Science, students must complete 18 units from the following list of courses plus the general breadth requirements for the Associate Degree (minimum 60 units).

REQUIRED COURSES:	UNITS
LIB 062 Care and Repair of Library Materials	1
LIB 064 Introduction to Libraries for Library Technicians	1
LIB 065 Public Services for Library Technicians	3
LIB 066 Acquisitions for Library Technicians	3
LIB 067 Library Technical Services	3
LIB 068 Library Media Services	2
LIB 069 Library Automation for Library Technicians (or any other hands-on college-level computer course)	(2)

RECOMMENDED COURSES:	UNITS
ENGL 055 or 155 Children's Literature (or any other college-level literature course)	(3)
LIB 110 Information Literacy	1

LIBRARY TECHNOLOGY CERTIFICATE

This certificate is designed to prepare students for entry-level employment in a library, assisting librarians to acquire, prepare, and organize material, and/or assisting users in finding information. In some cases, such as in small branch or school libraries, library technicians may perform any or all of these tasks on their own. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
LIB 062 Care and Repair of Library Materials	1
LIB 064 Introduction to Libraries for Library Technicians	1
LIB 065 Public Services for Library Technicians	3
LIB 066 Acquisitions for Library Technicians	3
LIB 067 Library Technical Services	3
LIB 068 Library Media Services	2
LIB 069 Library Automation for Library Technicians (or any other hands-on college-level computer course)	2

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LIBRARY TECHNOLOGY CERTIFICATE,

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LIB 198*	Library Work Experience	1-4
ENGL 055	or 155 Children's Literature (or any other college-level literature course)	(3)
CIT 010	Beginning Keyboarding (or demonstrated ability to type 30 wpm for five minutes)	(3)

TOTAL UNITS: 22-25

**This requirement may be waived if the student has been employed in a library for at least one year at full time (or equivalent).*

COURSES OFFERED BY THE DEPARTMENT OF LIBRARY TECHNOLOGY:

LIB 062
CARE AND REPAIR OF LIBRARY MATERIALS 1 UNIT
PREREQUISITE: None.

LECTURE: .5 hour per week and
LABORATORY: 1.5 hours per week.

Basic, hands-on instruction in the binding, repair, and care of printed library materials.

Associate Degree Applicable

LIB 064
INTRODUCTION TO LIBRARIES FOR LIBRARY TECHNICIANS 1 UNIT
PREREQUISITE: None.

LECTURE: 1 hour per week.

Introduction to the philosophy of library service; the history and types of libraries; the relationship of a library to the community it serves; the organizational structure of libraries; the role of the Library Technician; and the development of workplace attitude.

Associate Degree Applicable

LIB 065
PUBLIC SERVICES FOR LIBRARY TECHNICIANS 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

An introduction to library circulation systems; customer service skills; bibliographic instruction; shelf maintenance; image in public service; dealing with problem patrons; and basic reference skills, including a review of standard print and computer-based reference sources and their usage.

Associate Degree Applicable

LIB 066
ACQUISITIONS FOR LIBRARY TECHNICIANS 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

Introduction to the publishing industry; principles of collection development; bibliographic searching; acquisitions tools and techniques; accounting and budgeting procedures; an overview of ordering, receiving and claiming procedures; and weeding procedures.

Associate Degree Applicable

LIB 067
LIBRARY TECHNICAL SERVICES 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

Introduction to descriptive and subject cataloging, classification of materials using the Dewey Decimal and Library of Congress systems, preparation of catalog cards and computer database records, and use of electronic bibliographic utilities.

Associate Degree Applicable

LIB 068
LIBRARY MEDIA SERVICES 2 UNITS
PREREQUISITE: None.

LECTURE: 1.5 hours per week and
LABORATORY: 1.5 hours per week.

Provides an overview of a wide variety of media services within a library setting, ranging from the more traditional formats of film and video to the more recent compact disc technologies, digital audio, digitized video, telecommunications, and hypermedia.

Associate Degree Applicable

LIB 069
LIBRARY AUTOMATION FOR LIBRARY TECHNICIANS 2 UNITS
PREREQUISITE: None.

DEPARTMENTAL ADVISORIES: Completion of LIB 065, LIB 066, AND LIB 067, or equivalent experience.

LECTURE: 1.5 hour per week and
LABORATORY: 1.5 hours per week.

Introduction to the application and integration of computer systems in libraries. Students will be exposed to a variety of computer applications including online public access catalogs, automated circulation and cataloging systems. In addition, students will gain entry-level proficiency in utilizing compact disc technology and in conducting online database searches.

Associate Degree Applicable

LIB 110
INFORMATION LITERACY 1 UNIT
PREREQUISITE: None.

LECTURE: .50 hour and
LABORATORY: 1.5 hours per week.

An introduction to the skills needed to effectively access print and online information sources, to critically evaluate the information retrieved, and to practice ethical behavior in regard to information technology.

Applicable to Associate Degree

Course credit transfers to CSU and UC.

LIB 198
LIBRARY WORK EXPERIENCE 1-4 UNITS
PREREQUISITE: None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

MACHINIST TECHNOLOGY

DIVISION: Applied Technology & Transportation
 DIVISION DEAN: Thomas Bauman, M.S., P.E.
 DEPARTMENT HEAD: William Clarke, Ed.D.
 Technical 108
 (909) 384-8504
 DIVISION SECRETARY: Patsy Martinez
 (909) 384-8902
 DIVISION OFFICE: Technical 108
 (909) 384-4451
 LIAISON COUNSELOR: Wendy Whitney, M.S.
 (909) 384-4404

The Machinist Technology curriculum is designed to prepare students for entry-level employment in manufacturing. The courses train first-time students and re-train students already employed in the machine trades industry. The curriculum has been developed in collaboration with local industries to meet the National Industry Metalworking Standard (NIMS) Industry. Supporters of this program are Society of Plastics Industry (SPI) S&C Mold, W.A. Lane Corporation, Wilden Pump, Service Industrial Tool and Supply, Rettig Machine, Prestige Mold, Fontana Machines, MWYP International, and Zwerner Industries.

Core competencies emphasized by courses in this department:

- Find and interpret information.
- Demonstrate working knowledge of basic computer function.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.

MACHINIST TECHNOLOGY ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in one of the following five Machinist Technology majors, (1) Machine Technology, (2) Machinist Standard, (3) Tool and Die, (4) Computer Numerical Control CAD/CAM, (5) Mechanical Hydraulics/ Pneumatics, students must complete all the requirements for the appropriate certificate with a grade of C or better plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

Students working for certificates must have a basic knowledge of arithmetic, reading, and writing in order to learn and work in the occupations they select.

The following is a list of six Machinist Technology Certificates and the number of credits required for each certificate:

Name of the Certificate	Units Required for the Certificate	
	Specialized Courses	Core Courses**
(1) Machine Technology		25
(2) Machinist Standard	6	25
(3) Tool and Die	11	25
(4) Computer Numerical Control: CAD/CAM	18	25
(5) Mechanical Hydraulics/ Pneumatics	27	N/A
(6) Basic Operation Computerized Numerical Control	16	N/A

Note:
 • Basic Operation Computerized Numerical Control (CNC) certificate is not applicable towards Associate of Science in Machinist Technology degree.

• Students are required to take specialized courses and additional core courses in order to receive the following certificates: Machinist Standard Certificate; Tool and Die Certificate; and Computer Numerical Certificate

**Core Courses:		UNITS
MACH 120B	Machine Shop Theory	2
MACH 021B	Machine Shop I	4
MACH 022B	Machine Shop II	4
MACH 123A	Machine Shop III	4
MACH 124A	Machine Shop IV	4
MACH 090B	Engineering Blueprint Reading, Geometric Dimensioning and Tolerancing	3
TECALC 087	Technical Calculations	4
TOTAL UNITS for the Core Requirements		25

MACHINIST TECHNOLOGY CERTIFICATES

Students working for certificates must have a basic knowledge of arithmetic, reading, and writing in order to learn and work in the occupations they select.

The following is a list of six Machinist Technology Certificates and the number of credits required for each certificate:

Name of the Certificate	Units Required for the Certificate	
	Specialized Courses	Core Courses**
(1) Machine Technology		25
(2) Machinist Standard	6	25
(3) Tool and Die	14	25
(4) Computer Numerical Control: CAD/CAM	18	25
Name of the Certificate	Units Required for the Certificate	
	Specialized Courses	Core Courses**
(5) Mechanical Hydraulics/ Pneumatics	27	N/A
(6) Basic Operation Computerized Numerical Control	16	N/A

Note:

• Basic Operation Computerized Numerical Control (CNC) certificate is not applicable towards Associate of Science in Machinist Technology degree.

• Students are required to take specialized courses and additional core courses in order to receive the following certificates: Machinist Standard Certificate; Tool and Die Certificate; and Computer Numerical Certificate

**Core Courses:		UNITS
MACH 120B	Machine Shop Theory	2
MACH 021B	Machine Shop I	4
MACH 022B	Machine Shop II	4
MACH 123A	Machine Shop III	4
MACH 124A	Machine Shop IV	4
MACH 090B	Engineering Blueprint Reading, Geometric Dimensioning and Tolerancing	3
TECALC 087	Technical Calculations	4
TOTAL UNITS for the Core Requirements		25

1. Machine Technology

This certificate is designed to prepare students for entry-level employment in manufacturing using machine tools such as lathes, milling machines, and spindles to produce precision metal parts. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
Machine Technology Core Requirements	25
Total Units required for Machine Technology Certificate	25

*Pending approval from the California Community College Chancellor's Office

2. Machinist Standard

This certificate is designed to prepare students for entry-level employment in manufacturing producing precision metal parts using machine tools such as lathes, milling machines, and spindles, or in the maintenance and manufacture of new parts for existing machinery. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
Machine Technology Core Requirements	25
MACH 070B Computer Numerical Control Machining I	3
MACH 129B Manufacturing Processes	3
Total Units required for Machinist Standard Certificate	31

3. Tool and Die

This certificate is designed to prepare students for entry-level employment producing tools, dies, and special guiding and holding devices that enable machines to manufacture a variety of products we use daily - from clothing and furniture to heavy equipment and parts for aircraft. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
Machine Technology Core Requirements	25
MACH 160B Tool and Die	4
MACH 061B Jig and Fixture Making	4
MACH 129B Manufacturing Processes	3
Total Units required for the Tool and Die Certificate	36

4. Computer Numerical Control: CAD/CAM

This certificate is designed to prepare students for entry-level employment as production machinists working with complex computer numerically controlled (CNC) cutting machines. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
Machine Technology Core Requirements	25
MACH 070B Computer Numerical Control Machining I	3
MACH 071B Computer Numerical Control Machining II	3
MACH 072B Computer Aided Design/Computer Aided Manufacturing I	3
MACH 073B Computer Aided Design/Computer Aided Manufacturing II	3
MACH 074B Set-up and Operation of Various Machine Controls	3
MACH 129B Manufacturing Processes	3
Total Units required for Computer Numerical Control: CAD/CAM Certificate	43

5. Mechanical Hydraulics/Pneumatics

This certificate is designed to prepare students for entry-level employment for entry-level work in industrial mechanical hydraulics maintenance with training on state-of-the-art pneumatic systems, basic components, pumps and hydraulic simulation equipment. This certificate enables the holder to perform many plant maintenance requirements. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
MACH 021B Machine Shop I	4
MACH 090B Engineering Blueprint Reading, Geometric Dimensioning and Tolerancing	3
MACH 091A Rigging Systems and Techniques	3
MACH 092A Fluid Power Systems I	2
MACH 093A Fluid Power Systems II	2
MACH 094A Fluid Pump Systems	2
MACH 095A Piping Systems	1
MACH 096A Central Lubrication	1
MACH 097A Mechanical Systems	2
TECALC 087 Technical Calculations	4
WELD 145 Shielded Metal Arc Welding	3
Total Units required for Mechanical Hydraulics/Pneumatics Certificate	27

6. Basic Operation Computerized Numerical Control (CNC)

This certificate is designed to provide entry-level skills to operate a CNC lathe or milling type machine tool.

REQUIRED COURSES:	UNITS
MACH 021B Machine Shop I	4
MACH 070B Computer Numerical Control Machining I	3
MACH 074B Set-up and Operation of Various Machine Controls	3
MACH 075X2 Introduction to Computer Aided Drafting Technologies	3
MACH 090B Engineering Blueprint Reading, Geometric Dimensioning and Tolerancing	3
Total Units for Basic Operation Computerized Numerical Control (CNC) Certificate	16

COURSES OFFERED BY THE DEPARTMENT OF MACHINIST TECHNOLOGY:

MACH 021B MACHINE SHOP I 4 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: MACH 120A.

LECTURE: 2 hours per week and LABORATORY: 6 hours per week.

First semester machine shop practices for majors or non-majors, with emphasis on Occupational Safety Health Association (OSHA), shop mathematics, measurements, and the correct use of the basic machine tools, mills, lathes, saws, and drill presses, as well as an introduction to National Industry Metal Working Standards (NIMS) skill standards.

Associate Degree Applicable

MACH 022B MACHINE SHOP II 4 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: MACH 021B.

LECTURE: 2 hours per week and LABORATORY: 6 hours per week.

Second semester intermediate machine shop practices for majors or non-majors with a machining background. Emphasis on safety and Occupational Safety Health Act (OSHA), applied mathematics, and advanced processes on mills, lathes, and tool grinding and NIMS standards.

Associate Degree Applicable

MACH 061B JIG AND FIXTURE MAKING 4 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORIES: MACH 021B and MACH 120B.

LECTURE: 3 hours per week and LABORATORY: 3 hours per week.

The study of jig and fixtures applications for conventional and computerized numerical machining processes. Skills and standards apply to the National Metal Working Standards (NIMS).

Associate Degree Applicable

MACH 062X2 INTRODUCTION TO MOLD MAKING 2 UNITS

PREREQUISITE: MACH 120B.

LECTURE: 1 hour per week and LABORATORY: 3 hours per week.

Introduction to mold making and injection molding technology designed to give students a history and practical application of mold making for the industry. An overview of all mold making and injection molding procedures covering basic machining practices related to mold making and automated processes used in the mold making industry. This course may be taken two times.

Associate Degree Applicable

MACH 070B
COMPUTER NUMERICAL CONTROL MACHINING I 3 UNITS

PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

Beginning Computer Numerical Control (CNC) programming covering programming concepts, Cartesian coordinate systems, geometric principles, and manual programming on Machining Centers.
Associate Degree Applicable

MACH 071B
COMPUTER NUMERICAL CONTROL MACHINING II 3 UNITS

PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

Intermediate computer numerical control (CNC) programming covering programming concepts, hands-on programming, computer assisted programming and down load programs to the mill and turning center.
Associate Degree Applicable

MACH 072B
COMPUTER AIDED DESIGN/COMPUTER AIDED MANUFACTURING I 3 UNITS

PREREQUISITE: MACH 071A.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

The study and use of MasterCam software with emphasis on drawing 2-D solids construction and part design basics related to 2-D models part programming for mills, lathes, and Electric Discharge Machines (EDM) machining processes.
Associate Degree Applicable

MACH 073B
COMPUTER AIDED DESIGN/COMPUTER AIDED MANUFACTURING II 3 UNITS

PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

The study and use of MasterCam's mill and solids software to generate tool path, program codes, tooling information, and part coordinate information.
Associate Degree Applicable

MACH 074B
SET-UP AND OPERATION OF VARIOUS MACHINE CONTROLS 3 UNITS

PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

The study of 2-D tool path, machine control programming, part fixture, tool applications and management of data required to operate various CNC machines and inspection equipment.
Associate Degree Applicable

MACH 075X2
INTRODUCTION TO COMPUTER AIDED DRAFTING TECHNOLOGIES 3 UNITS

PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.

An introduction to Computer Aided Drafting (CAD) and design. Emphasis is placed on industry convention, AutoCAD commands and menus to create and plot two-dimensional drawings. Students are also introduced to three-dimensional solid modeling using AutoCAD, Inventor, and SolidWorks and its application in design and rapid prototyping. This course may be taken two times.
Associate Degree Applicable

MACH 090B
ENGINEERING BLUEPRINT READING, GEOMETRIC DIMENSIONING AND TOLERANCING 3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Blueprint interpretation with emphasis on terminology, Coordinate Measuring Machines (CMM), and concepts related to engineering drawing standards, geometric dimensioning and tolerancing language ANSI Y14.5, and how these apply to the engineering blueprint inspection processes.
Associate Degree Applicable

MACH 091A
RIGGING SYSTEMS AND TECHNIQUES 3 UNITS

PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

Rigging system fundamentals and their various applications in the manufacturing, construction, and transportation industry. Students will study rigging equipment, rigging processes, and how to operate rigging systems such as power hoists, sling and assemblies, and overhead crane operations. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable

MACH 092A
FLUID POWER SYSTEMS I 2 UNITS

PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 3 hours per week.

This course focuses on basic hydraulic and pneumatic systems. The student will study hydraulics, pneumatic power, basic circuits, symbols, schematic diagrams, and principles of power and flow processes.
Associate Degree Applicable

MACH 093A
FLUID POWER SYSTEMS II 2 UNITS

PREREQUISITE: MACH 092A
LECTURE: 1 hour per week and
LABORATORY: 3 hours per week.

This course focuses on advanced hydraulic, advanced pneumatic and electro-fluid power systems. Fundamentals of fluid power controls including hydraulic and pneumatic directional control valves, electrical control of fluid power, cylinder application, air logic controls, electronic sensors, and vacuum systems.
Associate Degree Applicable

**MACH 094A
FLUID PUMP SYSTEMS 2 UNITS**

PREREQUISITE: None.

LECTURE: 2 hours per week.

This course focuses on an introduction to single- and multiple-stage pump operations, pump performance analysis, and pump selection and maintenance.

Associate Degree Applicable

**MACH 095A
PIPING SYSTEMS 1 UNIT**

PREREQUISITE: None.

LECTURE: 1 hour per week.

This course focuses on an introduction to piping and piping installation, tubing, hoses, and valves. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

**MACH 096A
CENTRAL LUBRICATION 1 UNIT**

LECTURE: 1 hour per week.

PREREQUISITE: None.

This course focuses on an introduction to central lubrication operations, lubrication concepts, simple series/progressive lubrication, troubleshooting and maintenance. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

**MACH 097A
MECHANICAL SYSTEMS 2 UNITS**

PREREQUISITE: None.

**LECTURE: 1 hour per week and
LABORATORY: 3 hours per week.**

This course focuses on the basic of mechanical drive systems that include mechanical fasteners, measuring instruments, motors, power transmission systems, as well as mechanical drive installation processes. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

**MACH 120B
MACHINE SHOP THEORY 2 UNITS**

PREREQUISITE: None.

LECTURE: 2 hours per week.

The basic cutting concepts of machine tools are described and diagramed with cutting tool geometric and variations examined. New technologies in manufacturing are explored as well as discussion of National Industry Metal Skill Standards (NIMS).

Associate Degree Applicable

Course Credit transfers to CSU.

**MACH 123A
MACHINE SHOP III 4 UNITS**

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: MACH 022B.

**LECTURE: 2 hours per week and
LABORATORY: 6 hours per week.**

Third semester intermediate machine shop practices for majors or non-majors, with a machining background. Emphasis on safety, applied mathematics for tool manufacturing, surface grinding, milling and turning operations and National Industry Metal Skill Standards (NIMS).

Associate Degree Applicable

Course Credit transfers to CSU.

**MACH 124A
MACHINE SHOP IV 4 UNITS**

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: MACH 123A.

**LECTURE: 2 hours per week and
LABORATORY: 6 hours per week.**

Fourth semester of advanced machine shop practices for majors or non-majors with a machining background. Emphasis on safety, special tool grinding, gear cutting, carbide usage and tool manufacturing.

Associate Degree Applicable

Course Credit transfers to CSU.

**MACH 129B
MANUFACTURING PROCESSES 3 UNITS**

PREREQUISITE: None.

LECTURE: 3 hours per week.

Manufacturing processes, tapping and threading terminology, machining speeds/feeds, basic heat treating, turning processes, tool selection for turning, milling and drilling, processing of plastics and basic machine design.

Associate Degree Applicable

Course Credit transfers to CSU.

**MACH 160A
TOOL AND DIE 4 UNITS**

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: MACH 120B.

**LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.**

The study and design of advanced tools and dies, blanking processes, metal die cutting and forming processes and power presses for stamping and forming metal parts. Duties and standards apply to the National Metal Working Standards (NIMS).

Associate Degree Applicable

Course Credit transfers to CSU.

**MACH 198
MACHINIST TECHNOLOGY WORK EXPERIENCE 1-4 UNITS**

PREREQUISITE: None.

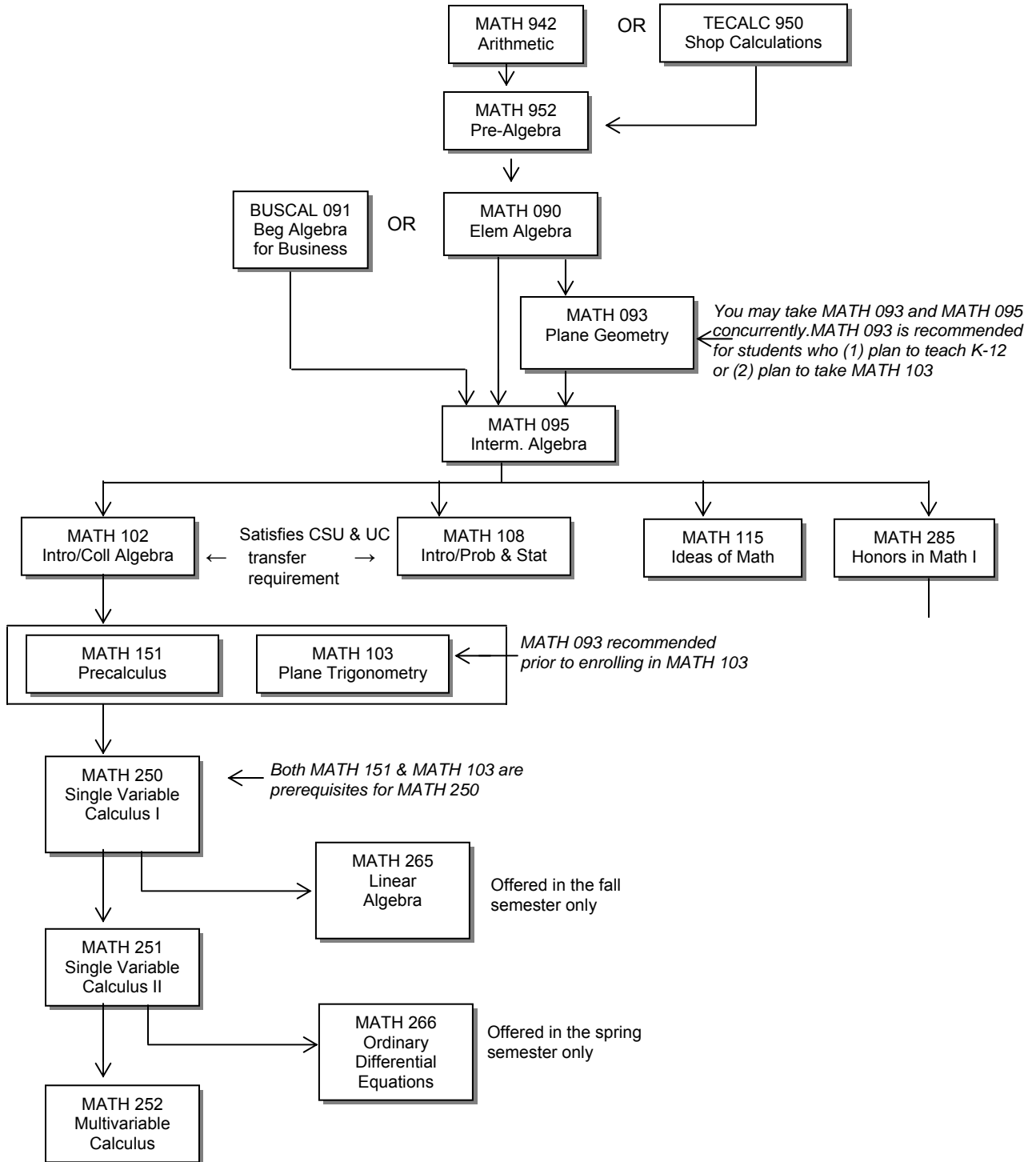
Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

Sequence of Mathematics Courses at SBVC

You may follow this sequence of courses to develop proficiency in mathematics
or
You may be eligible to begin this sequence with MATH 952, MATH 090, MATH 095
or higher depending on results of the SBVC assessment process.
(Contact a counselor for details and the Admissions Office for assessment dates.)



MATHEMATICS

DIVISION: Science and Math
 DIVISION DEAN: Haragewen Kinde, Ed.D.
 DEPARTMENT HEAD: Jeremiah Gilbert, M.A.
 Physical Science 248
 (909) 387-1604
 DEPARTMENT SECRETARY: Sylvia McDaniel
 Physical Science 230
 (909) 384-8520
 OTHER FACULTY: Diana Avila, Ph.D.
 Lori Ann Blecka, M.S.
 Kristen Dillard, M.A.
 Yvonne Ellis, M.S.
 Ann Gibbons, M.A.
 Abeir Kasouha, M.A.
 Keith Lee, M.S.
 Michael Mayne, M.S.
 Zadock Reid, Ph.D.
 Scott Rippey, M.A.
 Teri Strong, Ph.D.
 Rita Sturgeon, M.A.
 DIVISION SECRETARY: Rose Garcia
 DIVISION OFFICE: Chemistry 121
 (909) 384-8645
 LIAISON COUNSELOR: Rafael Herrera, M.S.
 (909) 384-4404

The Mathematics Department offers course work in all levels of mathematics from arithmetic through differential equations and linear algebra. Students seeking improvement in their basic mathematical skills and those desiring development of advanced mathematical methods can all find meaningful activities in the mathematics program. While there are job opportunities in pure mathematics, there are even more in education, business, engineering, and other technical fields that rely on mathematics. Students planning to transfer to a four-year institution and major in mathematics or a related field should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.

MATHEMATICS ASSOCIATE OF SCIENCE DEGREE

An Associate of Science degree with a specialization in Mathematics can be earned by completing the following required courses in addition to fulfilling the breadth requirements for the associate degree (minimum 60 semester units).

REQUIRED COURSES:	UNITS
MATH 151 Precalculus	4
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5
Three units from the list of RECOMMENDED COURSES	3
TOTAL UNITS:	20

RECOMMENDED COURSES:	UNITS
CS 190 Programming in C ++	4
MATH 265 Linear Algebra	3
MATH 266 Ordinary Differential Equations	3

COURSES OFFERED BY THE DEPARTMENT OF MATHEMATICS:

MATH 942 ARITHMETIC 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

A basic skills course in arithmetic including the fundamental operations of whole numbers, fractions, decimals, ratios, proportions, and percents.

Not applicable to the Associate Degree

MATH 942A VOCATIONAL ARITHMETIC: WHOLE NUMBERS 1 UNIT

PREREQUISITE: None.

LECTURE: 1 hour per week.

This is the first course of a basic skills sequence emphasizing arithmetic topics including the fundamental operations of whole numbers as they apply to vocational fields.

Not applicable to the Associate Degree

MATH 942B VOCATIONAL ARITHMETIC: FRACTIONS AND DECIMALS 1 UNIT

PREREQUISITE: MATH 942A.

LECTURE: 1 hour per week.

This is the second course of a basic skills sequence emphasizing arithmetic topics including the fundamental operations of fractions and decimals as they apply to vocational fields.

Not applicable to the Associate Degree

MATH 942C VOCATIONAL ARITHMETIC: PROPORTIONS, RATIOS, PERCENTS, AND GEOMETRY 1 UNIT

PREREQUISITE: MATH 942B.

LECTURE: 1 hour per week.

This is the third course of a basic skills sequence emphasizing arithmetic topics including proportions, ratios, percents, and geometry as they apply to vocational fields.

Not applicable to the Associate Degree

MATH 952 PREALGEBRA 4 UNITS

PREREQUISITE: MATH 942 or MATH 942C or eligibility for MATH 942 as determined through the SBVC assessment process.

LECTURE: 4 hours per week.

An introduction to mathematical properties; exponential notation; linear equations in one variable; algebraic word problems; variables; polynomials; and the appropriate rules for rational numbers, whole numbers, and integers; an emphasis on speaking, listening, reading, and writing in communicable mathematical terminology.

Not applicable to the Associate Degree

MATH 952A
PREALGEBRA: INTEGERS 1 UNIT
PREREQUISITE: MATH 942 or MATH 942C or
eligibility for MATH 952 as determined through the
SBVC assessment process.

LECTURE: 1 hour per week.

First course of a sequence emphasizing prealgebra topics including properties of real numbers, operations with integers, an introduction to variables, and simplifying algebraic expressions by adding subtracting, multiplying and dividing polynomials.

Not Applicable to Associate Degree

MATH 952B
PREALGEBRA: FRACTIONS 1 UNIT
PREREQUISITE: MATH 952A.
LECTURE: 1 hour per week.

Second course of a sequence emphasizing prealgebra topics including properties of fractions, operations with fractions, and simplifying algebraic expressions and solving simple linear equations containing fractions.

Not Applicable to Associate Degree

MATH 952C
PREALGEBRA: EXPONENTS AND LINEAR EQUATIONS 1 UNIT
PREREQUISITE: MATH 952B.
LECTURE: 1 hour per week.

Third course of a sequence emphasizing prealgebra topics including odd, even and prime numbers, rules of exponents, performing operations with exponents, simplifying algebraic expressions containing exponents, and further work solving simple linear equations.

Not Applicable to Associate Degree

MATH 952D
PREALGEBRA: DECIMALS, PERCENT, AND RATIOS 1 UNIT
PREREQUISITE: MATH 952C.

LECTURE: 1 hour per week.

Fourth course of a sequence emphasizing prealgebra topics including operations with decimals, percent, and ratios, simplifying algebraic expressions containing decimals and percent, solving proportions, solving simple linear equations containing decimals, and applications involving decimals, percent, and proportions.

Not Applicable to Associate Degree

MATH 010
FOUNDATIONAL SKILLS FOR MATHEMATICAL MAJORS .25 UNIT
PREREQUISITE: None.

COREQUISITE: MATH 102, 103, 151, 250, 251, 252, 265, or 266.

LECTURE: None.

LABORATORY: 13.5 hours per semester.

This course enables students to develop and strengthen foundational mathematical skills during enrollment in major's-level mathematics coursework. Workshops emphasize skill-building in the analytical and communication skills necessary for success in major's-level mathematics classes and professional-level mathematics careers. Topics include applied math, word problems, data manipulation, graphing, logical argument and writing to support a thesis, critical thinking, and the use of technology. Graded on a credit/no credit basis only.

Associate Degree Applicable

MATH 090
ELEMENTARY ALGEBRA 4 UNITS
PREREQUISITE: MATH 952, MATH 952D or eligibility
for MATH 090 as determined through the SBVC
assessment process.

LECTURE: 4 hours per week.

Covers the basic concepts typically presented in an introductory algebra course: operations with polynomials and rational expressions; rules of exponents; methods of factoring polynomials; solving linear, literal, and rational equations; solving linear inequalities; and solving applications modeled by linear equations.

Associate Degree Applicable

MATH 093
PLANE GEOMETRY 3 UNITS
PREREQUISITE: MATH 090 or eligibility for MATH 095
as determined through the SBVC assessment
process.

LECTURE: 3 hours per week.

A review of high school geometry including mathematical logic, proofs, geometric constructions, congruence, similarities, and other properties of basic closed plane figures.

Associate Degree Applicable

MATH 095
INTERMEDIATE ALGEBRA 4 UNITS
PREREQUISITE: MATH 090 or eligibility for MATH 095
as determined through the SBVC assessment
process OR BUSCAL 091.

LECTURE: 4 hours per week.

This is a second course in algebra which builds on the skills of solving equations. This course includes finding rational solutions to quadratic, absolute value and rational equations, solving linear and absolute value inequalities, rational exponents and radicals, graphing linear equations and inequalities in two variables, and solving systems of linear equations.

Associate Degree Applicable

MATH 102
COLLEGE ALGEBRA 4 UNITS
PREREQUISITE: MATH 095 or eligibility for MATH 102
as determined through the SBVC assessment
process.

LECTURE: 4 hours per week.

This course includes the study of quadratic equations and inequalities and their applications, an introduction to functions including operations and inverses, exponential functions and their graphs, logarithmic functions and their graphs and properties, in depth work graphing functions with transformations, an introduction to sequences, series, and the Binomial Expansion Theorem. This course is designed for students with a strong foundation in algebra.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

CAN (California Articulation Number): MATH 10

MATH 103
PLANE TRIGONOMETRY **4 UNITS**
PREREQUISITE: MATH 102 or eligibility for MATH 103 as determined through the SBVC assessment process.
LECTURE: 4 hours per week.
The study of trigonometry including trigonometric functions, identities, trigonometric equations, periodicity, graphs of the trigonometric functions, inverse functions, and solution of triangles.
Associate Degree Applicable
Course credit transfers to CSU.
CAN (California Articulation Number): MATH 8

MATH 108
INTRODUCTION TO PROBABILITY AND STATISTICS **4 UNITS**
PREREQUISITE: MATH 095 or eligibility for MATH 102 as determined through the SBVC assessment process.
LECTURE: 4 hours per week.
An introductory course to probability, descriptive and inferential statistics with applications to the natural sciences, business, economics, and the behavioral sciences.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): STAT 2

MATH 115
IDEAS OF MATHEMATICS **3 UNITS**
PREREQUISITE: MATH 095 or eligibility for MATH 102 as determined through the SBVC assessment process.
LECTURE: 3 hours per week.
This transfer level course is designed for non-science majors and includes sets, propositional logic, inductive reasoning and applications, mathematical patterns, counting methods, and finite probability spaces.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): MATH 2

MATH 151
PRECALCULUS **4 UNITS**
PREREQUISITE: MATH 102 or eligibility for MATH 151 as determined through the SBVC assessment process.
LECTURE: 4 hours per week.
This course provides foundational skills to facilitate success in calculus. The course includes inequalities, functions and their graphs, polynomials and rational functions, exponential and logarithmic functions, conics, sequences and series, mathematical induction, the Binomial Theorem, and systems of equations and inequalities.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): MATH 16

MATH 222
INDEPENDENT STUDY IN MATHEMATICS **1-3 UNITS**
PREREQUISITE: MATH 095 or eligibility for MATH 102 as determined through the SBVC assessment process.
INDEPENDENT STUDY: 3-9 hours per week.
Assigned projects involving research or directed study for selected students who are interested in furthering their knowledge of mathematics on an independent study basis. Each unit of independent study requires 3 hours per week for an entire semester. Enrollment is limited to students who meet independent study criteria. A contract must be prepared with the instructor prior to registration.
Associate Degree Applicable
Course credit transfers to CSU.
Limited transfer to UC; credit determined after transfer to UC.

MATH 250
SINGLE VARIABLE CALCULUS I **4 UNITS**
PREREQUISITES: MATH 103 and MATH 151 or eligibility for MATH 250 as determined through the SBVC assessment process.
LECTURE: 4 hours per week.
A first course in calculus including limits, continuity, derivatives of algebraic and trigonometric functions, applications of derivatives, antiderivatives, and definite integrals and their applications.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): MATH 18

MATH 251
SINGLE VARIABLE CALCULUS II **4 UNITS**
PREREQUISITE: MATH 250.
LECTURE: 4 hours per week.
This second course in calculus provides further application of definite integrals, differentiation and integration of transcendental functions, techniques of integration, L'Hopital's rule and improper integrals, infinite sequences and series, Taylor and power series.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): MATH 20

MATH 252
MULTIVARIABLE CALCULUS **5 UNITS**
PREREQUISITE: MATH 251.
LECTURE: 5 hours per week.
A third course in calculus including vectors, lines, and simple surfaces in three dimensional space, some linear algebra topics, vector-valued functions, partial derivatives, multiple integrals, line integrals and Green's Theorem, Divergence Theorem, surface integrals and the theorems of Gauss and Stokes.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): MATH 22

MATH 265
LINEAR ALGEBRA **3 UNITS**
PREREQUISITE: MATH 250 or eligibility as determined through the SBVC assessment process.
LECTURE: 3 hours per week.

An introduction to linear algebra that complements advanced courses in calculus. Topics include systems of linear equations, matrix operations, determinants, vectors and vector spaces, eigenvalues and eigenvectors, and linear transformations.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): MATH 26

MATH 266
ORDINARY DIFFERENTIAL EQUATIONS **3 UNITS**
PREREQUISITE: MATH 251.
DEPARTMENTAL ADVISORY: MATH 252.
LECTURE: 3 hours per week.

An introduction to differential equations that complements advanced courses in calculus. Topics include first order differential equations and applications, linear differential equations and some applications of second order linear differential equations, linear systems, and an introduction to series solutions and the Laplace transform.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): MATH 24

MATH 285
HONORS IN MATHEMATICS I **3 UNITS**
PREREQUISITE: MATH 095 or MATH 102.
LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.

An introduction to algebraic concepts and functional properties necessary for understanding limits and the application of those limits to their derivative functions in calculus.

Associate Degree Applicable

Course credit transfers to CSU and UC.

MATHEMATICS APPLIED

See the Department of BUSINESS CALCULATIONS or Technical Calculations courses within the Department of ELECTRICITY/ELECTRONICS

MICROBIOLOGY

See courses within the BIOLOGY DEPARTMENT

MODERN LANGUAGES

FOR COURSES IN MODERN LANGUAGES, SEE:
 AMERICAN SIGN LANGUAGE, FRENCH,
 AND SPANISH

MUSIC

DIVISION: Humanities
 DIVISION DEAN: Marjorie Price, M.A., M.Ed.
 DEPARTMENT HEAD: Leticia Hector, M.A.
 Liberal Arts 239
 (909) 384-8618
 OTHER FACULTY: Matie Scully, M.M.
 DIVISION SECRETARIES: Kelly Adcock
 (909) 384-8906
 Cheryl Benner
 (909) 384-8633
 DIVISION OFFICE: North Hall 236
 (909) 384-4445
 LIAISON COUNSELOR: Juan Zepeda, M.S.
 (909) 384-4404

Music is one of the most rewarding of all human endeavors, and the faculty and students in the Department of Music share a deep love for their art and a common desire to achieve excellence in it. The curriculum provides basic preparation for careers in music or further study, and is designed to provide a balanced education in the many facets of musical experience. It is the goal of the Music Department to help students develop their musical and intellectual potential to the highest possible level.

Students planning to transfer to a four-year institution and major in music should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Apply learned knowledge to new situations.
- Evaluate diverse artistic works.
- Demonstrate creative thought through original expression.
- Demonstrate knowledge of and respect for other cultures.
- Demonstrate knowledge of and respect for one's own culture.

MUSIC ASSOCIATE OF ARTS DEGREE

To graduate with a specialization in Music, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units).

REQUIRED COURSES:		UNITS
MUS 101	Music Theory I: Fundamentals	3
MUS 101L	Musicianship I	1
MUS 102	Music Theory II: Scales and Modes	3
MUS 102L	Musicianship II	1
MUS 201	Music Theory III: Basic Harmony	3
MUS 201L	Musicianship III	1
MUS 202	Music Theory IV: Harmony	3
MUS 202L	Musicianship IV	1
MUS 121	Music Literature I –Middle Ages Through Classicism	3
MUS 122	Music Literature II – Classicism To Present	3
MUS 133	Beginning Piano	3

Four semester units from the following performance courses: 4
 MUS 141x4, 150x4, 152x4, 154x4, 156x4, 158x4
TOTAL UNITS: 29

COURSES OFFERED BY THE DEPARTMENT OF MUSIC:

MUS 100
INTRODUCTION TO MUSIC 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 This course introduces students to music and methods of music listening. Included in this course will be guidelines for music selection, cross-cultural studies in music, a discussion of patrons and audiences, consideration of the roles of women in creating music, and a history of popular music.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 101
MUSIC THEORY I: FUNDAMENTALS 3 UNITS
PREREQUISITE: MUS 101L.
LECTURE: 3 hours per week.
 Designed to teach music terminology, rhythm, pitch, notation, meter, key signatures, scales, chords, and keyboard geography. Includes a study of the role that music plays in society, its aesthetic impact, and some of the music of important composers in the development of music including J.S. Bach, Mozart, Beethoven, Brahms, Wagner, and Copland.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 101L
MUSICIANSHIP I 1 UNIT
PREREQUISITE: None.
COREQUISITE: MUS 101.
LECTURE: None.
LABORATORY: 3 hours per week.
 A general study of the components of musicianship, this course explores how musical sounds are represented on paper through the use of graphic symbols and the basic ways in which they relate to each other in music composition. This course further explores how the musician interprets these symbols.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 102
MUSIC THEORY II: SCALES AND MODES 3 UNITS
PREREQUISITES: MUS 101 and MUS 101L
COREQUISITE: MUS 102L.
LECTURE: 3 hours per week and
 Designed to teach analytical and compositional techniques through a progressive study of the following: counterpoint, harmony, modulation, voice leading, harmonic and formal analysis, and 20th century atonality. Examines key words by important composers in the development of music such as J.S. Bach, Beethoven, Debussy, Schoenberg and Stravinsky and the impact these pieces have made in our society and its aesthetic development.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 102L
MUSICIANSHIP II 1 UNIT
PREREQUISITES: MUS 101 and MUS 101L.
COREQUISITE: MUS 102.
LECTURE: None.
LABORATORY: 3 hours per week.
 Continues to focus on the study of musicianship through its components. Explores dictation skills (the notation of aural impressions), the continued use of solfeggio syllables to discern pitches within a tonal framework, and keyboard fundamentals designed to elevate students' levels of musicianship.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 104
HISTORY OF ROCK AND ROLL 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 A chronological survey of rock music styles including origins, development, effects on today's society, and major artists.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 105
AMERICAN POPULAR MUSIC 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 This course traces the social history of America through its music by comparing the works of outstanding musicians and examining them in detail to demonstrate similarities and differences among the various styles.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 106
HISTORY OF JAZZ 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 Provides the student with a chronological survey of jazz music styles, including origins, development, effects on today's society, and major artists and styles. Concepts such as musical structure and form are explored.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 107
MUSIC OF THE WORLD 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 A survey of the traditional and folk music of the Americas, Europe, Near-Middle-Far East and sub-Sahara Africa. Live and filmed performances introduce students to the instrumental and vocal techniques, musical structures and performance contexts within selected cultures of these areas. Includes the impact of western influences. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 117x4
GUITAR INSTRUCTION 1 UNIT
PREREQUISITE: None.

LABORATORY: 3 hours per week.
A progressive study of the guitar beginning with stringing, tuning and fingering, and continuing with the development of playing techniques, notation, reading guitar music, playing melodies, chord construction, and accompaniment. Students must provide their own instruments. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 121
MUSIC LITERATURE I – MIDDLE AGES THROUGH CLASSICISM 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.
An overview of music's historical development from the Middle Ages through Classicism. Emphasis is on appreciation of musical form and the role of music in a multicultural society to political and artist events.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 122
MUSIC LITERATURE II – CLASSICISM TO PRESENT 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.
An overview of music's historical development from Classicism to the present. Emphasis is on appreciation of musical form and the role of music in a multicultural society to political and artist events.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 123
BEGINNING MIDI WORKSTATION 3 UNITS
PREREQUISITE: None.

LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.
An introduction to MIDI and its applications, the use of computers, MIDI interface, synthesizers, drum machine and tape recorder in developing musical projects. This course will emphasize developing competency in music sequencing and the use of graphics software.
Associate Degree Applicable
Course credit transfers to CSU.

MUS 124
MIDI-WORKSTATION: SONGS AND STYLES 3 UNITS
PREREQUISITE: MUS 123.
DEPARTMENTAL ADVISORY: Concurrent enrollment in MUS 127x4.

LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.
Practical experience in MIDI (Musical Instrument Digital Interface) and its applications, with an emphasis on song writing and constructing stylistic demonstrations similar to those used in the music and film industries. Competencies in music sequencing and the use of graphics software will be developed.
Associate Degree Applicable
Course credit transfers to CSU.

MUS 127x4
MIDI WORKSTATION: PRACTICUM LABORATORY 1 UNIT

PREREQUISITE: MUS 123.
LABORATORY: 3 hours per week.
Practical experience in MIDI and its applications. Workstation format will provide the basis for MIDI instruction, benefiting both the beginner and experienced user. Subsequent enrollment will provide the student an opportunity for developing additional skill and competency in the subject matter. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU.

MUS 130
ELEMENTARY VOICE 3 UNITS
PREREQUISITE: None.

LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.
An introduction and progressive study of vocal techniques including muscular aspects, sound producing properties of the vocal mechanism with emphasis on singing and vocal projection used in a speech and drama and standard vocal literature.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 131
INTERMEDIATE VOICE 3 UNITS
PREREQUISITE: MUS 130.

DEPARTMENTAL ADVISORY: Concurrent enrollment in MUS 141x4.
LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.
This course is designed for the singer who has had formal vocal training and wishes to pursue additional training for a career in the vocal arts. Emphasis is on vocal technique, voice quality, expression, style, interpretation, stage presence, and multi-language diction.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 133
BEGINNING PIANO 3 UNITS
PREREQUISITE: None.

DEPARTMENTAL ADVISORY: Concurrent enrollment in MUS 101.
LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.
This course teaches practical keyboard facility, sight reading, elementary improvisation and harmonization of folk melodies, and leads to the performance of simple piano selections. This course will be useful for those desiring to learn to play the piano, organ, or electronic keyboards.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 134
INTERMEDIATE PIANO 3 UNITS
PREREQUISITE: MUS 133.

DEPARTMENTAL ADVISORY: MUS 102.
LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.
This course focuses on the improvement of keyboard facility and sight reading abilities, advances improvisation and harmonization skills, and directs the performance of complex piano selections. This course will be useful for those desiring to strengthen current keyboard skills.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 136
INTRODUCTION TO JAZZ ROCK PIANO 3 UNITS
PREREQUISITE: MUS 133.
LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.
 An introduction to the contemporary styles of piano performance with an emphasis on jazz, rock, Latin and pop. Includes contemporary theory, ear training and improvisation skills.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 141x4
APPLIED MUSIC 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 Applied music study in piano, voice and orchestral instruments with an approved off-campus instructor. Students are required to have 16 one-hour lessons during the semester, and are responsible for the cost of private instruction. At the end of the semester, each student will perform before the music faculty to determine semester grade. This course may be taken four times. **AT LEAST THREE YEARS OF PREVIOUS STUDY ON INSTRUMENT OR VOICE IS REQUIRED.**
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 150x4
MIXED CHORUS 1 UNIT
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: Concurrent enrollment in MUS 101 or MUS 130.
LABORATORY: 3 hours per week.
 Foundational techniques in such aspects of choral music as breathing, posture, tone production, enunciation and musicianship, especially recommended for education and liberal arts majors who desire vocal training. Includes choral music from a variety of stylistic periods including classical, spiritual, folk and musical theatre. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 152x4
CHAMBER SINGERS 2 UNITS
PREREQUISITES: None.
LABORATORY: 6 hours per week.
 Study and performance of a wide variety of outstanding music literature from all periods suitable to a chamber group including classical genres and contemporary art music as well as musical theater and opera excerpts. This course may be taken four times. **PREVIOUS CHORAL EXPERIENCE AND/OR ABILITY TO READ MUSIC IS REQUIRED.**
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 154x4
COLLEGE SINGERS 2 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: Choral experience and/or MUS 101 or MUS 130 or equivalent.
LABORATORY: 6 hours per week.
 Rehearsal and performance of college level choral literature from various style periods. The performance schedule includes both on and off campus concerts throughout the semester. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 156x4
CONCERT CHOIR 2 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: Choral experience or MUS 101.
LABORATORY: 6 hours per week.
 Progressive study and performance of outstanding representative choral works from all periods of music history. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 158x4
GOSPEL CHOIR 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 For students interested in the performance of a unique genre of African-American music; emphasis is on the evolutionary aspects of gospel as reflected in the growth of American civilization. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 201
MUSIC THEORY III: BASIC HARMONY 3 UNITS
PREREQUISITES: MUS 102 and MUS 102L.
COREQUISITE: MUS 102.
LECTURE: 3 hours per week.
 A complete study of diatonic harmonies, including a review of triad formations and principles of voice-leading. Beginning study of seventh chords, secondary dominants, realization of figured bass lines, beginning formal analysis and intermediate ear-training (two-part dictation) and sight-singing of harmonic parts in chorales. Includes analysis of the chorales by J.S. Bach, sight-singing chorale parts, and taking two-part dictation of melodic and harmonic lines from such chorales.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 201L
MUSICIANSHIP III 1 UNIT
PREREQUISITES: MUS 102 and MUS 102L.
COREQUISITE: MUS 201.
LECTURE: None.
LABORATORY: 3 hours per week.
 Emphasis on further development of skills in sight singing melodies which contain all intervals, melodic dictation which contains modulation, harmonic identification of all diatonic seventh chords and harmonic dictation of chorale phrases which modulate, rhythmic dictation with quarter and eighth beat values and in compound meters.
Associate Degree Applicable
Course credit transfers to CSU.

MUS 202
MUSIC THEORY IV: HARMONY 3 UNITS
PREREQUISITES: MUS 201 and MUS 201L.
COREQUISITE: MUS 202L.
LECTURE: 3 hours per week.
 A conclusive study of diatonic harmonies, including further work with secondary dominant chord structures and figured bass line realizations. An extensive study of ninth chords (complete, incomplete, and dominant ninth), Neapolitan and augmented sixth chords as well as a study of irregular resolution will be undertaken. Conclusive study of Bach Chorales and other brief forms will be undertaken.
Associate Degree Applicable
Course credit transfers to CSU and UC.

MUS 202L
MUSICIANSHIP IV **1 UNIT**
PREREQUISITES: MUS 201 and MUS 201L.
COREQUISITE: MUS 202.
LECTURE: None.
LABORATORY: 3 hours per week.

Emphasis on further development of skills in sight singing modal melodies and melodies containing larger leaps and non-diatonic tones, dictation of melodies with non-diatonic tones and modal melodies, harmonic identification of secondary dominants and augmented sixth and Neapolitan sixth chord, rhythmic dictation with changing meters and super triplets.

Associate Degree Applicable

Course credit transfers to CSU and UC.

MUS 222
INDEPENDENT STUDY IN MUSIC **1-3 UNITS**
PREREQUISITE: None.
INDEPENDENT STUDY: 3-9 hours per week.

Assigned projects involving research and analysis of selected topics or directed study for students who are interested in furthering their knowledge of music on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable

Course credit transfers to CSU.

Limited transfer to UC; credit determined after transfer to UC.

MUS 285
HONORS IN MUSIC **3 UNITS**
PREREQUISITE: MUS 101 or MUS 121 or MUS 122.
LECTURE: 3 hours per week.

A study of selected topics from musical literature ranging from Gregorian Chant to Twentieth Century composition, focusing on the analysis of structure, thematic material and, in some cases, literary relationships.

Associate Degree Applicable

Course credit transfers to CSU and UC.

NURSING

DIVISION:	Health Science
DIVISION DEAN:	Marilyn Johnson, M.N.
DEPARTMENT HEAD:	Priscilla Taylor, M.S.N. (909) 384-8925
OTHER FACULTY:	June Hill, M.S. Laura Leedahl, Ed.D. Tamara Maurizi, M.S.N. Marion Meines, M.S.N. Violeta Obra, M.S. Geoff Schroder, M.S.N. Monica Temple, M.S. Judith Tobin, M.S.N. Alicia Tuvida, M.N. Sandra Waters, M.S.N. Rebecca Whitfield, M.S.N. Christie Winter, M.S.
DIVISION SECRETARY:	Dorothy N. Fierro
DIVISION OFFICE:	Health and Life Science 101 (909) 384-8550
LIAISON COUNSELOR:	Juan Zepeda, M.S. (909) 384-4404

The Nursing Department offers a sequence of courses leading to an Associate of Science degree with a major in nursing. Students learn to function in a variety of health care settings and aid patients, through the nursing process, attain or maintain their optimum level of wellness. Graduates are eligible to take the national licensing exam and become licensed as a Registered Nurse in the state of California.

Learning activities are conducted on the San Bernardino Valley College campus and in local hospitals and community agencies. After completion of prerequisites, students must apply and be accepted. Prerequisite courses and the admission process is explained below as well as in a pamphlet available in the Health Science Division Office and the Counseling Center, Registered Nursing Program: How to Prepare for R.N. Licensure. The program is accredited by the California State Board of Registered Nursing and the National League for Nursing Accrediting Commission, 61 Broadway – 33rd Floor, New York, NY 10006.

Licensed Vocational Nurses may also take courses leading to Registered Nursing licensure. See the following section, on OPTIONS FOR LICENSED VOCATIONAL NURSES. A pamphlet is available in the Health Science Division Office, LVN to RN Nursing Program.

A background check is required for admission. California law allows for denial of the Registered Nurse (R.N.) license based on any conviction or legal action related to nursing practice. Admission may be denied based on a history of prior convictions related to nursing practice which would include Medicare/Medicaid fraud, and/or sex offenses. If convictions exist, proof of rehabilitation is required. For further information: www.rn.ca.gov.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Find and interpret information.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.
- Accept responsibility for own actions.
- Exhibit personal, professional and academic honesty.
- Display behavior consistent with ethical standards within a discipline.
- Set goals for educational, personal and professional development.

PREREQUISITES FOR THE NURSING PROGRAM:

1. Graduation from high school or its equivalent (G.E.D. or the California State High School Proficiency Exam), or Bachelor degree.
2. Demonstrate competency in English and mathematics by satisfying the following criteria:
 - a. Competency in English is demonstrated by completion of ENGL 015 or ENGL 101 with a grade of C or higher.
 - b. Competency in mathematics is demonstrated by:
 - i. Completion of MATH 090 or a higher level course in mathematics with a grade of C or higher.

or

- ii. Completion of a mathematics proficiency examination which is equivalent to a comprehensive final examination in MATH 090 with the equivalent to a grade of C or higher.
or
 - iii. Completion of BUSCAL 091 or TECALC 097 with a grade of C or higher.
3. Prerequisite courses listed below must be completed before entry into the nursing program. A grade of C or better and a minimum G.P.A. of 2.75 must be earned in prerequisite courses below.

BIOL 250 and BIOL 251	Human Anatomy and Physiology I and II
or	
BIOL 260 and BIOL 261	Human Anatomy and Human Physiology
BIOL 270	Microbiology
PSYCH 100	Psychology

NOTE:

- BIOL 261 (or BIOL 250 and 251) and BIOL 270 must be taken within 5 years of admission to nursing courses.
- BIOL 251 has a prerequisite of BIOL 250.
- BIOL 261 has a prerequisite of BIOL 260 and CHEM 101.
- BIOL 270 has prerequisites of BIOL 250 or 260 or 261 and CHEM 101.
- CHEM 101 has a prerequisite of MATH 090.

REQUIRED SUPPORT COURSES FOR THE NURSING PROGRAM

The following courses must be completed prior to graduation, or may be completed before entering the nursing program. A grade of C or better must be earned in each:

ENGL 101	Freshman Composition
SPEECH 100	Elements of Public Speaking
or	
SPEECH 111	Interpersonal Communication
SOC 100	Introduction to Sociology
or	
ANTHRO 102	Cultural Anthropology

The **full-time program** consists of 4 semesters of Monday thru Friday, day-time classes with day or evening labs. Students are admitted in the Fall and Spring semesters.

STEPS TO APPLY FOR THE NURSING PROGRAM:

Applications for the **Nursing program** should be submitted in the semester when prerequisites are being completed and must be received by **February 1** for entry in the Fall semester OR by **September 1** for entry in the Spring semester. Incomplete applications will not be accepted.

- Application and admission to San Bernardino Valley College (Admissions & Records Office, Administration/ Student Services Building.)
- Submit to the Nursing Department:
 - a. "Application For Admission" form (available in the Health Science Division).

- b. Official college transcripts from all colleges or universities attended except for SBVC or Crafton Hills College showing prerequisites that meet the required G.P.A. (If transcripts are from a foreign country, it must be evaluated (see Admissions Clerk.) If prerequisite courses are in progress at the time of application, the student must arrange to have the instructor submit the final grade that maintains the required G.P.A.
- c. Documents showing competency in English and mathematics (if not showing on transcript).
- d. High School completion document (transcript, or diploma, or G.E.D. score, or Calif. High School Proficiency exam score) or Bachelor degree.

ADMISSION TO THE NURSING PROGRAM

Applications will be evaluated according to the program requirements stated above. Students meeting all prerequisites will be considered for acceptance dependent upon space availability. If there are more students with requirements met than spaces available, students will be randomly ranked and accepted in the program. Students who have previously met the requirements will be accepted into the program first, followed by the current applicants who have met the requirements until the class is filled. Only if space is available will late applications be considered. Incomplete applications will not be considered.

OPTIONS FOR LICENSED VOCATIONAL NURSES

Students with a current California Vocational Nursing License who wish to become Registered Nurses may select one of the following:

Regular Nursing Program: complete prerequisites and support courses listed above, apply and be accepted into the regular Nursing Program.

Option 1. LVN to RN Bridge: Complete prerequisites and support courses for RN program listed above, and general breadth requirements for the Associate of Science Degree. Apply by January 5 (March entry) and be accepted into the LVN to RN Bridge program. Complete each of the following courses with a grade of C or higher: NURS 108, 109 (includes challenge exams to determine eligibility to enter the following courses) 200, 202, 210, 211, 212, and 217.

Option 2. LVN to RN, 30 Unit Option (*This option fulfills the minimum requirements to take the RN licensing exam, but students who complete this option are not graduates of the program, do not earn a degree, and may not be eligible to be licensed in states other than California*). Complete each of the following prerequisites with a grade of C or higher: BIOL 261 (or BIOL 250 and 251) and BIOL 270. Apply by January 5 (March entry) and be accepted into the LVN to RN, 30 Unit Option Program. Complete each of the following courses with a grade of C or higher: NURS 108, 109 (includes challenge exams to determine eligibility to enter the following courses), 200, 210, 211, 212, and 217.

NURSING ASSOCIATE OF SCIENCE DEGREE

To graduate with a major in Nursing, students must complete each of the following courses plus the general education requirements for the Associate of Science Degree with a grade of C or higher.

REQUIRED NURSING COURSES:	UNITS
NURS 100 Introduction to the Associate Degree Nursing Program	1
NURS 102 Fundamentals of Nursing	4.5
NURS 104 Medical-Surgical Nursing I	5
NURS 108 Pharmacology for Nurses	1
NURS 110 Medical-Surgical Nursing II	5.5
NURS 112 Maternity Nursing	5
NURS 200 Medical-Surgical Nursing III	5.5
NURS 202 Pediatric Nursing	4.75
NURS 210 Nursing Care of the Critically Ill	2.5
NURS 211 Medical-Surgical Nursing IV	3.75
NURS 212 Psychiatric Nursing	2.75
NURS 217 Advanced Ethical and Legal Aspects of Nursing	1
TOTAL UNITS:	42.25

COURSES OFFERED BY THE DEPARTMENT OF NURSING:

Registration in the following nursing courses is limited to students who have completed prerequisites and have been accepted into the Nursing Program.

**NURS 100
INTRODUCTION TO THE ASSOCIATE DEGREE
NURSING PROGRAM 1 UNIT**

PREREQUISITE: None.
LECTURE: 1 hour per week.

Introduction to core concepts of the nursing curriculum conceptual framework, anxiety/stress, defense mechanisms, crisis intervention, death and dying, and nursing ethics. Includes student learning responsibilities and strategies for success in the nursing program. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

*Associate Degree Applicable
Course credit transfers to CSU.*

**NURS 101
APPLICATION OF CRITICAL THINKING TO FIRST
LEVEL NURSING PRACTICE 1 UNIT**

PREREQUISITE: None.
COREQUISITES: NURS 102 or NURS 104.
**LECTURE: 0.5 hour per week and
LABORATORY: 1.5 hours per week.**

Designed to facilitate development of critical thinking and the application of first level medical-surgical nursing theory. Includes analysis of clinical situations, practice of selected first level nursing skills, basic mathematical nursing problems, learning techniques and use of the nursing process. Graded on Credit/No Credit basis only. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

*Associate Degree Applicable
Course credit transfers to CSU for elective credit only.*

**NURS 102
FUNDAMENTALS OF NURSING 4.5 UNITS**

PREREQUISITES: BIOL 250 and BIOL 251 (or BIOL 260, BIOL 261 and BIOL 270) and PSYCH 100 and ENGL 015.

COREQUISITE: NURS 100.
DEPARTMENTAL ADVISORY: READ 970.
**LECTURE: 2.5 hours per week and
LABORATORY: 6 hours per week.**

Introduction to the nursing care of adult and elder adult clients with basic alterations in the psychological variable. Includes fundamental nursing concepts/skills and beginning application of the nursing process to assist clients attain or maintain their optimum level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

*Associate Degree Applicable
Course credit transfers to CSU.*

**NURS 103
APPLICATION OF CRITICAL THINKING TO SECOND
LEVEL NURSING PRACTICE 1 UNIT**

PREREQUISITE: None.
COREQUISITES: NURS 110 or NURS 112.
**LECTURE: 0.5 hour per week and
LABORATORY: 1.5 hours per week.**

Designed to facilitate development of critical thinking and the application of second level medical-surgical and maternity nursing theory. Includes analysis of clinical situations, practice of selected second level nursing skills, mathematical nursing programs and use of the nursing process. Graded on Credit/No-Credit basis only. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

*Associate Degree Applicable
Course credit transfers to CSU.*

**NURS 104
MEDICAL-SURGICAL NURSING I 5 UNITS**

PREREQUISITE: NURS 102.
**LECTURE: 2.75 hours per week and
LABORATORY: 6.75 hours per week.**

First level medical-surgical nursing focuses on the physiological, sociocultural and developmental variables as they relate to selected alterations in integumentary, immunological, metabolism, reproduction, and musculoskeletal subsystems. Application of the nursing process to assist clients to attain and maintain their optimum level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

*Associate Degree Applicable
Course credit transfers to CSU.*

NURS 108
PHARMACOLOGY FOR NURSES 1 UNIT
PREREQUISITE: NURS 102.

LECTURE: 1 hour per week.

Fundamental principles of pharmacology that govern the action of drugs on the human body. Overview of major classifications of drug therapy in relation to the physiological and developmental variables. Includes role of drug therapy in assisting clients to attain and maintain their optimal level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 109
VOCATIONAL TO PROFESSIONAL NURSE
TRANSITION 2 UNITS

PREREQUISITES: BIOL 250 and BIOL 251 (or BIOL 260 and BIOL 261), and BIOL 270 and PSYCH 100.

DEPARTMENTAL ADVISORIES: READ 015 and ENGL 015.

LECTURE: 1.5 hours per week and
LABORATORY: 1.5 hours per week.

Prepares Licensed Vocational Nurses to transition into the Registered Nursing program. Includes role transition content including: Nursing Process, Standards of Practice, and Critical Thinking in nursing. Challenge examinations covering first & second semester medical-surgical and maternity nursing content will determine eligibility for placement in the program. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE A CURRENT CALIFORNIA LVN LICENSE AND HAVE BEEN ACCEPTED INTO THE LVN TO RN NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 110
MEDICAL-SURGICAL NURSING II 5.5 UNITS
PREREQUISITE: NURS 104.

LECTURE: 3.25 hours per week and
LABORATORY: 6.75 hours per week.

Second level medical-surgical nursing focusing on the physiological, sociocultural and developmental variables as they relate to selected alterations in oxygenation, digestion and bowel elimination, metabolism and cerebral/peripheral neurological innervation subsystems. Application of the nursing process to assist clients to attain and maintain their optimum level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 112
MATERNITY NURSING 5 UNITS
PREREQUISITE: NURS 104.

LECTURE: 2.75 hours per week and
LABORATORY: 6.75 hours per week.

Maternity nursing focuses on the physiological, psychological, sociocultural and developmental variables. Applicable of the nursing process to assist childbearing families to attain and maintain their optimum level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 118
NURSING CARE PLAN ENRICHMENT 1 UNIT
PREREQUISITE: NURS 102.

LECTURE: 1 hour per week.

Supplementary course to assist students to increase understanding and improve ability to construct client-focused nursing care plans using the case analysis method. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.** Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

NURS 198
NURSING WORK EXPERIENCE 1-4 UNITS
PREREQUISITE: None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students **MUST** be working for pay or volunteer before registering for a Work Experience class. **NOTE: Only one section of Work Experience may be taken during a semester.**

Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

NURS 200
MEDICAL-SURGICAL NURSING III 5.5 UNITS
PREREQUISITES: NURS 108 and NURS 110 and
NURS 112.

LECTURE: 3.25 hours per week and
LABORATORY: 6.75 hours per week.

Third level medical-surgical nursing focusing on the physiological, psychological, sociocultural and developmental variables as they relate to specific alterations in urinary elimination, circulation, metabolism, immunological and hematological subsystems Application of the nursing process to assist clients to attain and maintain their optimum level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 201
APPLICATION OF CRITICAL THINKING TO THIRD
LEVEL NURSING PRACTICE 1 UNIT
PREREQUISITE: None.

PREREQUISITE/COREQUISITE: NURS 200 or NURS 202.

LECTURE: 0.5 hour per week and
LABORATORY: 1.5 hours per week.

Designed to facilitate development of critical thinking and the application of third level medical-surgical and pediatric nursing theory. Includes analysis of clinical situations, practice of third level skills, mathematical nursing problems and use of the nursing process. Graded on Credit/No Credit basis only. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

NURS 202
PEDIATRIC NURSING 4.75 UNITS
PREREQUISITES: NURS 108 and NURS 110 and
NURS 112.

LECTURE: 2.75 hours per week and
LABORATORY: 6 hours per week.

A family-centered approach to the nursing care of infants and children. Application of the nursing process to pediatric clients with commonly occurring alterations in the physiological, psychological, sociocultural and developmental variables to assist them to attain and maintain their optimum level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 203
APPLICATION OF CRITICAL THINKING TO
FOURTH LEVEL NURSING PRACTICE 1 UNIT
PREREQUISITE: None.

COREQUISITE: NURS 210 or NURS 211 or NURS 212.
LECTURE: 0.5 hour per week and
LABORATORY: 1.5 hours per week.

Designed to facilitate development of critical thinking and the application of fourth level medical-surgical, psychiatric and critical care nursing theory. Includes analysis of complex clinical situations, NCLEX style test taking practice, complex mathematical nursing problems and use of the nursing process. Graded on Credit/No-Credit basis only. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

NURS 210
NURSING CARE OF THE CRITICALLY ILL 2.5 UNITS
PREREQUISITES: NURS 200 and NURS 202.

LECTURE: 1.5 hours per week and
LABORATORY: 3 hours per week.

Advanced medical-surgical nursing with a focus on the physiological, psychological, sociocultural and developmental variables. Application of the nursing process to adult clients with single or multiple subsystem failure to reestablish equilibrium and assist critically ill clients to attain their optimum level of wellness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 211
MEDICAL-SURGICAL NURSING IV 3.75 UNITS
PREREQUISITES/COREQUISITE: NURS 210 and
NURS 212.

LECTURE: 1 hour per week and
LABORATORY: 8.25 hours per week.

Fourth level medical-surgical nursing focusing on the physiological, psychological, sociocultural and developmental variables. Application of the nursing process to the management of groups of clients to assist them to attain and maintain their optimum level of wellness. Included are advanced concepts in nursing leadership, home health care, disaster nursing, and aging. Includes preparation for the NCLEX examination and explores employment opportunities. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 212
PSYCHIATRIC NURSING 2.75 UNITS
PREREQUISITES: NURS 200 and NURS 202.
LECTURE: 1.5 hours per week and
LABORATORY: 3.75 hours per week.

Introduction to psychiatric nursing with a special focus on neurobiological theory and application of the nursing process to clients with alterations in the psychological variable. Other topics include suicide, substance abuse and domestic violence. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NURS 217
ADVANCED ETHICAL AND LEGAL ASPECTS
OF NURSING 1 UNIT

PREREQUISITES: NURS 200 and NURS 202.
LECTURE: 1 hour per week.

Explores ethical, legal, and professional aspects related to nursing practice. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE NURSING PROGRAM.**

Associate Degree Applicable
Course credit transfers to CSU.

NUTRITION/FOOD
See the Department of
FAMILY AND CONSUMER SCIENCE

OCEANOGRAPHY

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LIAISON COUNSELOR: Rafael Herrera, M.S.
(909) 384-4404

Oceanography courses provide a sound introduction to the marine environment which comprises 71% of the earth's surface. The courses are designed for both science and non-science majors and are fundamental for students planning to major in oceanography.

Students planning to transfer to a four-year institution and major in oceanography should consult with a counselor regarding the transfer process and lower division requirements.

COURSES OFFERED BY THE DEPARTMENT OF OCEANOGRAPHY:

OCEAN 100
INTRODUCTION TO OCEANOGRAPHY 4 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

An introduction to the study of the oceans including the geological processes that created the ocean basins; the type and character of ocean sediments; the chemistry of sea water; the physical motions of the oceans; waves, tides, and circulation; a survey of the variety of life in the oceans and the interrelationships of biological communities with their physical environments. Laboratory activities are coordinated with lecture topics.

Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

OCEAN 101
ELEMENTS OF OCEANOGRAPHY **3 UNITS**
PREREQUISITE: None.

LECTURE: 3 hours per week.

The lecture portion of OCEAN 100 without the required laboratory.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

OCEAN 111
INVESTIGATIONS IN OCEANOGRAPHY **1 UNIT**
PREREQUISITE/COREQUISITE: OCEAN 101.

LABORATORY: 3 hours per week.
 Techniques of oceanography including bathymetry, charts, and methods of studying the physical ocean environment.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PARALEGAL STUDIES

DIVISION: Business & Information Technology
 DIVISION DEAN: Margaret Ortiz, M.A.
 DEPARTMENT HEAD: Nickolas Zombos, M.S.
 Business 100D
 (909) 384-8912
 OTHER FACULTY: Donald Schall, J.D.
 DIVISION SECRETARY: Chris Williams
 DIVISION OFFICE: Business 101
 (909) 384-8908
 LIAISON COUNSELOR: André Wooten, M.A.
 (909) 384-4404

The Paralegal Studies Program prepares students for employment as a Legal assistant in law offices, courts or related positions where knowledge of law is necessary. The work assumes proficiency in word processing and keyboarding. In addition to the coursework listed below, courses within Computer Information Technology are recommended.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.
- Find and interpret information.

PARALEGAL STUDIES
ASSOCIATE OF ARTS DEGREE

REQUIRED COURSES:	UNITS
PARLGL 100 Law Office Management for the Paralegal	3
PARLGL 110 Legal Research Methods: Federal & California	3
PARLGL 111 Legal Writing and Analysis	3
PARLGL 200 Civil Litigation Procedures	3
PARLGL 220 Legal Ethics	3
PARLGL 230 Torts	3
BUSAD 210 Business Law I	3
BUSAD 211 Business Law II	3
CIT 020 Word Processing: Microsoft Word	3

Select three courses from the list of RECOMMENDED COURSES: 7-11

RECOMMENDED COURSES:	UNITS
ACCT 200 Principles of Accounting	4
ADJUS 103 Concepts of Criminal Law	3

BUSAD 198 Business Administration Work Exp	1-4
PARLGL 120 Wills, Probate and Estate Planning	3
PARLGL 130 Family Law	3
PARLGL 205 Legal Remedies	3
PARLGL 240 Bankruptcy Law and Procedures	3
REALST 215 Legal Aspects of Real Estate	3

TOTAL UNITS: 35-39

PLUS completion of the general education graduation requirements as described in the catalog.

COURSES OFFERED BY THE DEPARTMENT OF PARALEGAL STUDIES:

PARLGL 100
LAW OFFICE MANAGEMENT FOR THE PARALEGAL
3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

This course covers the organization and structure of the law office as well as the critical role of the paralegal in handling time management and maintaining the accuracy of accounting systems used in law firms. Other topics covered include: malpractice avoidance; strategic planning and marketing; records management; technology in the law office.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

PARLGL 110
LEGAL RESEARCH METHODS: FEDERAL AND CALIFORNIA
3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

Provides instruction in the use of different research tools relevant to state statutes and case law, including the use of Shepard's Citations.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

PARLGL 111
LEGAL WRITING AND ANALYSIS
3 UNITS

PREREQUISITE: PARLGL 110.

DEPARTMENTAL ADVISORY: ENGL 101.

LECTURE: 3 hours per week.

Designed to help a student develop skills in writing a variety of legal documents, including interoffice research memorandums, memorandums of points and authorities, motions and responses, and trial briefs. Assists in the development of the ability to critically analyze and apply case law.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

PARLGL 120
WILLS, PROBATE AND ESTATE PLANNING
3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

An in-depth study of the laws affecting wills, trusts, and probate in California. Emphasis is placed on interstate succession, probate avoidance, and practical matters that occur on death. Procedures for preparing legal forms are highlighted.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

PARLGL 130
FAMILY LAW **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hour per week.
 An in-depth study of the laws affecting domestic relations in California with an emphasis on marriage, divorce (dissolution), separation, annulment, Marvin actions, paternity, and adoptions.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

PARLGL 200
CIVIL LITIGATION AND PROCEDURES **3 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: BUSAD 210
LECTURE: 3 hours per week.
 Designed to help the student develop an understanding of the procedural rules and laws that apply to the area of civil litigation. Topics covered include territorial and subject matter jurisdiction and scope of discovery.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

PARLGL 205
LEGAL REMEDIES **3 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: PARLGL 200.
LECTURE: 3 hours per week.
 Designed to help a student develop an understanding of the various remedies that are available in the area of civil litigation. Topics covered include tort vs. contract damages; equitable remedies; injuries to property, business, commercial and personal interests; and breach of contract.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

PARLGL 220
LEGAL ETHICS **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.
 This class is designed to equip paralegal students with the tools to face ethical dilemmas on the job. It provides a comprehensive description of attorney rules of ethics and how these rules apply to the lawyers and non-lawyers whom the attorneys supervise.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

PARLGL 230
TORTS **3 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: PARLGL 100.
LECTURE: 3 hours per week.
 This course is designed to develop an overview of tort law for the paralegal. Topics include: intentional torts; negligence; absolute liability; product liability; the role of the paralegal in preparing tort cases for litigation.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

PARLGL 240
BANKRUPTCY LAW AND PROCEDURES **3 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: CIT 031 or ENGL 015.
LECTURE: 3 hours per week.
 An in-depth look into bankruptcy and the laws which govern its use. Includes a review of voluntary and involuntary bankruptcies filed under Chapters 7, 11, and 13 of the United States Code, and an overview of the paralegal's role in evaluating bankruptcy information and in preparing and filing petitions and claims.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

PHARMACY TECHNOLOGY

DIVISION: Health Science
 DIVISION DEAN: Marilyn Johnson, M.N.
 DEPARTMENT CHAIR: Marilyn Johnson, M.N.
 OTHER FACULTY: Judith Tobin, M.S.N.
 DIVISION SECRETARY: Dorothy N. Fierro
 DIVISION OFFICE: Health and Life Science 101
 (909) 384-8550
 LIAISON COUNSELOR: Ailsa Aguilar-Kitibutr, Psy.D.
 (909) 384-4404

The Pharmacy Technology Program is a 10-month certificate program that prepares students to work in pharmacies to fill prescriptions, stock supplies, and sell to the public under the supervision of a pharmacist. Students are admitted in the Fall and Spring semesters. Students may also earn an Associate Degree. A background check is required by some clinical sites. The California Board of Pharmacy requires a background check and may deny the Pharmacy Technician licensure based on convictions substantially related to Pharmacy Technology practice.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.
- Accept responsibility for own actions.
- Work effectively in group settings.

PHARMACY TECHNOLOGY ASSOCIATE OF SCIENCE DEGREE

To earn an Associate Degree with a specialization in Pharmacy Technology, students must complete the following required courses plus the general breadth requirements (minimum total = 60 units)

REQUIRED COURSES:	UNITS
<i>Complete the following courses with a grade of C or better:</i>	
PHT 020 Introduction to Pharmacy Technology	2
PHT 030 Pharmacology	3
PHT 031 Pharmacy Calculations	3
PHT 041 Pharmacy Systems	3
PHT 042 Pharmacy Intern Seminar	1
PHT 043 Pharmacy Clinical Experience	4
TOTAL UNITS:	16

RECOMMENDED COURSES:

ANTHRO 102 Cultural Anthropology	3
BIOL 100 General Biology	4
CHEM 101 Introductory Chemistry	4
ENGL 101 Freshman Composition	4
or	
ENGL 015 Preparation for College Writing	(4)
MATH 090 Elementary Algebra	4
PSYCH 100 General Psychology	3
SPAN 101 College Spanish I	5
SPEECH 111 Interpersonal Communication	3

PHARMACY TECHNOLOGY CERTIFICATE

This certificate is designed to prepare the student for entry-level employment as a pharmacy technician, assisting pharmacists to provide medication and other healthcare products to patients; receiving and verifying written prescriptions, requests for prescription refills from patients, or electronic prescriptions sent from doctors' offices; retrieving, counting, pouring, weighing, measuring, and sometimes mixing medications; and preparing containers and labels for medications. Technicians may also establish and maintain patient profiles, prepare insurance claim forms, and stock and take inventory of prescription and over-the-counter medications. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:**UNITS**

Complete the following courses with a grade of C or better:

PHT 020 Introduction to Pharmacy Technology	2
PHT 030 Pharmacology	3
PHT 031 Pharmacy Calculations	3
PHT 041 Pharmacy Systems	3
PHT 042 Pharmacy Intern Seminar	1
PHT 043 Pharmacy Clinical Experience	4
MATH 952 Prealgebra	4
or	
MATH 090 Elementary Algebra	(4)
ENGL 015 Preparation for College Writing	4
or	
ENGL 101 Freshman Composition	(4)
TOTAL UNITS:	24

*Pending approval from the California Community College Chancellor's Office

COURSES OFFERED BY THE DEPARTMENT OF PHARMACY TECHNOLOGY:**PHT 020****INTRODUCTION TO PHARMACY TECHNOLOGY****2 UNITS****PREREQUISITE: None.****LECTURE: 2 hours per week.**

An introduction to the role of the Pharmacy Technician in the delivery of pharmacy services in acute and ambulatory care settings. Emphasizes pharmaceutical terminology, distribution systems, and pharmacy standards. Includes ethical, legal, and professional issues.

Associate Degree Applicable

PHT 030**PHARMACOLOGY****3 UNITS****PREREQUISITE: None.****LECTURE: 2 hours per week and****LABORATORY: 3 hours per week.**

An introduction to the mechanisms of actions and therapeutic uses of drugs within broad classifications. Includes physical, chemical and pharmacological incompatibilities and adverse reactions of drugs. Emphasizes common drug dosages, dosage forms, and recognition of inconsistencies in drug orders.

Associate Degree Applicable

PHT 031**PHARMACY CALCULATIONS****3 UNITS****PREREQUISITE/COREQUISITE: MATH 952.****LECTURE: 3 hours per week.**

Designed to assist students in applying mathematical skills in calculating accurate dosages of medications and intravenous solutions. Includes the application of business calculations in pharmacy operations.

Associate Degree Applicable

PHT 041**PHARMACY SYSTEMS****3 UNITS****PREREQUISITES: PHT 030 and PHT 031.****LECTURE: 2 hours per week and****LABORATORY: 3 hours per week.**

This course focuses on the application of advanced distribution and dispensing methods for medications within a laboratory setting. Emphasizes advanced concepts of inventory control and repackaging systems.

Associate Degree Applicable

PHT 042**PHARMACY INTERN SEMINAR****1 UNIT****PREREQUISITE/COREQUISITE: PHT 041.****COREQUISITE: PHT 043.****LECTURE: 1 hour per week.**

This course emphasizes the application of methods for dispensing medications, inventory control and repackaging systems within a laboratory setting. Serves as lecture-based support for the students' clinical experience.

Associate Degree Applicable

PHT 043**PHARMACY CLINICAL EXPERIENCE****4 UNITS****PREREQUISITES: PHT 030 and PHT 031.****PREREQUISITE/COREQUISITE: PHT 041****COREQUISITE: PHT 042.****LABORATORY: 20 hours clinical experience per week.**

This course includes application of the distribution and dispensing of medications in a pharmacy under the direct supervision of a pharmacist. Emphasizes inventory control and repackaging systems.

Associate Degree Applicable

PHILOSOPHY / RELIGIOUS STUDIES

DIVISION: Humanities
DIVISION DEAN: Marjorie Price, M.A., M.Ed.
DEPARTMENT HEAD: Julius Jackson, Ph.D.
Liberal Arts 119
(909) 384-8595
OTHER FACULTY: Leonard Lopez, J.D.
DIVISION SECRETARIES: Kelly Adcock
(909) 384-8906
Cheryl Benner
(909) 384-8633
DIVISION OFFICE: North Hall 236
(909) 384-4445
LIAISON COUNSELOR: Juan Zepeda, M.S.
(909) 384-4404

Whatever the vocational goal, students benefit from completing courses in philosophy and religious studies. Nearly everyone is concerned with the kinds of questions and experiences studied in philosophy and religion. Both fields of study are concerned with the nature of reality, truth and value, the human response to death and suffering, and those perennial human questions: Who am I? Why am I here? And where am I going?

Philosophy and religious studies courses require critical analysis, clarity, and understanding. These skills are achieved through careful and close reading of texts, images, and symbols as well as through descriptive and analytic writing. These are invaluable skills transferable to most vocations.

Philosophy and religion courses require the study of diverse and often competing belief systems. This is a challenging and exciting endeavor that can help us make sense of the events taking place in the world around us.

Students planning to transfer to a four-year institution and major in philosophy or religious studies should consult a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Find and interpret information.

COURSES OFFERED BY THE DEPARTMENT OF PHILOSOPHY / RELIGIOUS STUDIES:

PHIL 101
INTRODUCTION TO PHILOSOPHY 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

General introduction to the major problems of philosophy with attention directed to classical and modern philosophical literature as a basis for discussion of epistemology, metaphysics, ethics and/or aesthetics.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): PHIL 2

PHIL 101H
INTRODUCTION TO PHILOSOPHY – HONORS 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

General introduction to the major problems of philosophy, with attention directed to classical and modern literature as a basis for discussion of issues such as epistemology, metaphysics, ethics, and aesthetics. Enrollment is limited to students eligible for the Honors Program.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PHIL 102
CRITICAL THINKING AND WRITING 3 UNITS

PREREQUISITE: ENGL 101 or ENGL 101H.

LECTURE: 3 hours per week.

An introduction to critical thinking focusing on argument and evidence and the ability to write coherent argumentative essays. Topics include recognition of the structures of reasoning in natural language, the evaluation of such reasoning (including informal fallacies), the uses and abuses of language, and an investigation of the rhetorical devices common in our culture. Students practice critical thinking by writing substantive arguments and essays.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PHIL 103
INTRODUCTION TO LOGIC:
ARGUMENT AND EVIDENCE 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

Introduction to the techniques of critical thought including language analysis, inductive and deductive logic, symbolic logic and the development of scientific method.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): PHIL 6

PHIL 105
INTRODUCTION TO ETHICS 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

Moral philosophy with an analysis of the basic ideas and principles involved in moral conduct and including the concepts of good, right, obligation and conscience. Problems of truthfulness, race, sex, marriage and war are examined in relation to moral philosophy. Special attention is given to contemporary problems of value pertinent to the interests of students majoring in medical arts and in administration of justice.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): PHIL 4

PHIL 112
PHILOSOPHY IN LITERATURE 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

Ethical and metaphysical themes as presented in literature from the classical to the modern period with emphasis on the literary treatment of such problems as freedom and determinism, the nature of virtue, the meaning of death, the individual's relationship to the state and the structure of reality.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PHIL 180
DEATH AND DYING 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
A study of dying, death, and bereavement. Medical, ethical, legal, philosophical, and religious considerations will be explored. This course qualifies for continuing education credit for nurses. Provider approved by the California Board of Registered Nursing, provider number 01480, for 45 contact hours. This course is also offered as RELIG 180.
Associate Degree Applicable
Course credit transfers to CSU and UC.

RELIG 100
INTRODUCTION TO RELIGIOUS STUDIES 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
An introductory study of religion with emphasis on religious experience, the origins and function of religion and religious and theological modes of expression, drawing on Eastern and Western, ancient and modern religious phenomena.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

RELIG 100H
INTRODUCTION TO RELIGIOUS STUDIES- HONORS 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
An introductory study of religion, with emphasis on religious experience, the origins and function of religion and religious and theological modes of expression, drawing on Eastern and Western, ancient and modern religious phenomena to help in understanding various religions. Enrollment is limited to students eligible for the Honors Program.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

RELIG 101
INTRODUCTION TO WORLD RELIGIONS 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
Introduction to the major traditions of the world with an emphasis on the beliefs, practices, and histories of Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, and Taoism.
Associate Degree Applicable
Course credit transfers to CSU and UC.

RELIG 110
TRIBAL AND ETHNIC RELIGIONS 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
A comparative study of supernaturalism in primitive societies, both past and present including witchcraft, magic, totemism, mythology and ritual, nativistic movements, and the religious context of drug usage. Prehistoric religion will be examined, as well as the belief systems of selected tribal peoples. This course is also offered as ANTHRO 110.
Associate Degree Applicable
Course credit transfers to CSU and UC.

RELIG 135
RELIGION IN AMERICA 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
Principal figures, groups, issues and trends in religion from colonial times to the present including such topics as the Puritans, growth of religious liberty in America; religion and social protest; the African-American religious experience; the Catholic, Protestant and Jews, and contemporary religious phenomena.
Associate Degree Applicable
Course credit transfers to CSU and UC.

RELIG 150
INTRODUCTION TO MYTHOLOGY 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
An overview of myth and its function in culture through an introduction to origin and end-time stories from many traditions including native American, the classical mythology of Greece and the major living religions.
Associate Degree Applicable
Course credit transfers to CSU and UC.

RELIG 175
LITERATURE AND RELIGION OF THE BIBLE 3 UNITS
PREREQUISITE: ENGL 101.
LECTURE: 3 hours per week.
The English Bible as literature and as religion including an examination of the types of literature found in the Bible, the historical and religious context in which the literature was developed and an extensive reading of the two testaments. This course is also offered as ENGL 175.
Associate Degree Applicable
Course credit transfers to CSU and UC.

RELIG 176
JESUS AND HIS INTERPRETERS 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
A study of images and interpretations of Jesus with three principle divisions: Jesus and the gospels or biblical tradition; Jesus and the historians including the quest of historians and theologians for the Jesus of history; and Jesus and the arts (Jesus in art, music, film, and the literary arts, such as novels, poems, and plays).
Associate Degree Applicable
Course credit transfers to CSU and UC.

RELIG 180
DEATH AND DYING 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
A study of dying, death, and bereavement. Medical, ethical, legal, philosophical, and religious considerations will be explored. This course qualifies for continuing education credit for nurses. Approved by the California Board of Registered Nursing, provider number 01480, for 45 contact hours. This course is also offered as PHIL 180.
Associate Degree Applicable
Course credit transfers to CSU and UC.

PHOTOGRAPHY

See courses within the ART Department

PHYSICAL EDUCATION AND ATHLETICS

DIVISION: Physical Education and Athletics
DIVISION DEAN: Corene Schwartz, Ed.D.
FACULTY: Dawn Adler, M.S.
Ken Blumenthal, M.A.
Dan Clauss, M.Ed.
Ingrid Dahlgren, M.S.
Marie Hollis, M.A.
Philip Mathews, M.Ed.
David Rubio, M.A.
Cindy Runyon, M.A.
DIVISION SECRETARY: Atrina Sloan
DIVISION OFFICE: Snyder Gym 28
(909) 384-8514
LIAISON COUNSELOR: André Wooten, M.A.
(909) 384-4404

Courses in the Physical Education Department are designed to increase students' skills in activities that produce physiological results and promote lifelong habits of fitness.

Within this department, courses are grouped in two areas: Health Education and Physical Education.

Four-year graduates in Health Education, Physical Education, and Athletics qualify for employment in private industry and recreational agencies and are prepared to seek teaching credentials in elementary or secondary education.

Students planning to transfer to a four-year institution and major in physical education or related fields should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Apply learned knowledge to new situations.
- Accept responsibility for own actions.
- Exhibit personal, professional and academic honesty.
- Display behavior consistent with ethical standards within a discipline.
- Recognize own strengths and weaknesses.
- Set goals for educational, personal and professional development.
- Set goals to create balance in personal and professional life.

COURSES OFFERED BY THE DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS:

HEALTH EDUCATION

HEALTH 101
HEALTH EDUCATION 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.

The meaning of health as a fundamental quality of human life with emphasis on the importance of participation in a positive health program for the individual and the community.
Associate Degree Applicable
Course credit transfers to CSU and UC.

HEALTH 103
INTRODUCTION TO HOLISTIC HEALTH 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

An introduction to health and healing practices involving the integration of physical, mental, spiritual, and social resources. Students explore ancient disciplines of Ayurveda, Yoga, and Chinese Medicine, as well as modern Western health systems like Biofeedback, Swedish Massage, Reiki, Meditation, Guided Imagery, Herbalism, Humor and Music Therapy. Emphasis is placed on health promotion and prevention of disease, and how we become self-advocates in promoting our own well being with the assistance of health care professionals.
Associate Degree Applicable
Course credit transfers to CSU.

PHYSICAL EDUCATION

PE 198
PHYSICAL EDUCATION WORK EXPERIENCE 1-4 UNITS
PREREQUISITE: None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

PE 200
INTRODUCTION TO PHYSICAL EDUCATION
AND KINESIOLOGY 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

A formal introduction into the heritage, programs, philosophies, and potential careers in physical education and kinesiology. Emphasis is on describing and assessing this multifaceted field and the career potential it offers. An understanding of how the philosophies and programs of physical education evolved is stressed.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PE 201
MENTAL SKILLS FOR SPORT PERFORMANCE 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

Developing an understanding of the mental aspects of sport performance and learning mental skills that can be used to enhance sport performance.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PE 210
SPORTS OFFICIATING 2 UNITS
PREREQUISITE: None.

LECTURE: 2 hours per week.

Instruction in and analysis of the rules, techniques, and mechanics of officiating the sports of soccer, football, basketball, and baseball.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PE 222
INDEPENDENT STUDY IN PHYSICAL EDUCATION 1-3 UNITS

PREREQUISITE: None.

INDEPENDENT STUDY: 3-9 hours per week.

Assigned problems involving research and analysis of selected topic or directed study for students who are interested in furthering their knowledge of physical education and athletics on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

Limited transfer to UC; credit determined after transfer to UC.

PE 223
LIFEGUARD TRAINING 2 UNITS

PREREQUISITE: None.

LECTURE: 1 hour per week and

LABORATORY: 3 hours per week.

Provide lifeguard candidates with the skills, knowledge, duties, and responsibilities to keep the patrons of aquatic facilities safe around the water. Designed to prevent accidents and rescue others. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PE 231
FIRST AID AND CPR 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

The emergency care and treatment of illnesses and injuries including training in cardiopulmonary resuscitation. Students who successfully pass all National Safety Council requirements will receive a First Aid Certificate. Students who successfully pass all CPR requirements will receive a CPR Certificate.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PE 232
PREVENTION AND CARE OF ATHLETIC INJURIES 3 UNITS

PREREQUISITE: None.

LECTURE: 2 hours per week.

LABORATORY: 3 hours per week.

An Introductory course in recognition, assessment, management, care, and prevention of injuries occurring in physical activities. Basic taping techniques as well as the proper selection and use of treatment modalities will be included.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PE 236
STRESS MANAGEMENT AND WELLNESS 3 UNITS

PREREQUISITE: None.

LECTURE: 2 hours per week and

LABORATORY: 3 hours per week.

A study of stress with emphasis on the physiological, psychological, and sociological issues throughout the lifespan. Topics include: recognition and analysis of symptoms of stress, scientific studies, assessment tools, fitness programs, meditation, yoga, nutrition, weight control, and healthy habits that enhance health and well-being.

Associate Degree Applicable

Course credit transfers to CSU.

PE 282x2
PROFESSIONAL ACTIVITIES: BASEBALL 2 UNITS

PREREQUISITE: None.

LECTURE: 1 hour per week and

LABORATORY: 3 hours per week.

Designed to prepare individuals to more effectively play and coach the sport of baseball. Instruction in various techniques, rules, regulations, team strategy, and etiquette of the game will be included. This course may be taken two times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PE 283x2
PROFESSIONAL ACTIVITIES: BASKETBALL 2 UNITS

PREREQUISITE: None.

LECTURE: 1 hour per week and

LABORATORY: 3 hours per week.

Designed to prepare individuals to more effectively play and coach the sport of basketball. Instruction in various techniques, rules, regulations, team strategy, and etiquette of the game will be included. This course may be taken two times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PE 285x2
PROFESSIONAL ACTIVITIES: FOOTBALL 2 UNITS

PREREQUISITE: None.

LECTURE: 1 hour per week and

LABORATORY: 3 hours per week.

An introduction to the physical, mental and emotional aspects of playing and coaching football. Instruction and practical experience for prospective players, coaches and teachers. This course may be taken two times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PE 288x2
PROFESSIONAL ACTIVITIES: SOFTBALL 2 UNITS

PREREQUISITE: None.

LECTURE: 1 hour per week and

LABORATORY: 3 hours per week.

Designed to prepare individuals to more effectively play and coach the sport of softball. Instruction in various techniques, rules, regulations, team strategy, and etiquette of the game will be included. This course may be taken two times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PE 291x2
PROFESSIONAL ACTIVITIES: TRACK & FIELD 2 UNITS
PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 3 hours per week.
A study of track and field focusing on both participating in event-specific skills and learning the rules and regulations of the sport. Students, interested in physical education as a major, will also acquire skills in coaching track and field. This course may be taken two times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE 293x2
PROFESSIONAL ACTIVITIES: VOLLEYBALL 2 UNITS
PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 3 hours per week.
Designed to prepare individuals to more effectively play and coach the sport of volleyball. Instruction in various techniques, rules, regulations, team strategy, and etiquette of the game will be included. This course may be taken two times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

INDIVIDUAL/ DUAL ACTIVITIES AND SPORTS

PE/I 103x4
BADMINTON 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
Introduction in the skills, techniques, strategy, etiquette, and rules of badminton. The course is designed to improve physical fitness, and to teach carryover skills. Each course includes beginning, low intermediate, high intermediate and advanced levels of instruction. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/I 105x4
LOW IMPACT AEROBICS 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
This course is designed to teach fitness concepts and movement skills to enhance strength, flexibility, endurance, movement memory, balance, coordination, and cardiovascular fitness. Instruction will be modified to accommodate students of all fitness and skill levels. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/I 108x4
WEIGHT TRAINING 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
The course is designed to teach safe and proper technique for resistance exercises. Students will use free weights and universal machines to develop muscle strength and endurance. Students of all ability levels will receive individual instruction and personally tailored programs. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/I 110x4
FOIL FENCING 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
Designed to teach the history, rules, terminology, and skills of foil fencing. Emphasis will be on developing the basic skills of footwork, thrusts, parries, bout directing, score keeping, and judging. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/I 115x4
EPEE-SABRE FENCING 1 UNIT
PREREQUISITE: PE/I 110x4.
LABORATORY: 3 hours per week.
Designed to teach the history, rules, terminology, and skills of epee and saber fencing. Emphasis will be on developing the basic skills of footwork, attacks, defenses, and directing. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/I 116x4
EPEE FENCING 1 UNIT
PREREQUISITE: PE/I 110x4.
LABORATORY: 3 hours per week.
History, rules, terminology and skills of Epee Fencing. The selection, use and care of Epee equipment. Basic skills of footwork, attacks, defenses, bouting, refereeing and judging. Mental preparation and strategies for competition will also be taught. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/I 127x4
WALKING FOR FITNESS 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
Designed to teach the various techniques and strategies of walking for fitness. Emphasis will be on developing cardiovascular efficiency and providing the students information that encourages lifelong fitness. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/I 132x4
DISTANCE RUNNING 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
Designed to teach the various skills, techniques, and strategies of distance running. Instruction will focus on improving the student's running efficiency, cardiovascular fitness, and distance running. The course will include individual and group instruction and practice. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

**PE/I 138x4
PHYSICAL FITNESS 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

A structured exercise class designed to develop a balanced exercise program including cardiovascular, strength and flexibility training. Instructor guided equipment orientation, fitness testing, exercise technique, and individualized programming are provided. Class is appropriate for all fitness levels. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 148x4
TENNIS 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

Instruction in the skills, techniques, strategies, etiquette and rules of tennis. Instruction designed for beginning, low intermediate, high intermediate and advanced levels directed toward improving overall physical fitness.

This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 164x4
SWIMMING 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

This course is designed to teach swimming skills, techniques, and strategies. A comprehensive coverage of all swimming strokes. Some history, philosophy and psychology of swimming are included. This course is designed to help students have better cardiovascular performance in swimming. The course also includes other aquatic skills such as lifesaving and safety techniques. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 168x4
YOGA 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

This course is designed to provide a comprehensive coverage of all aspects of Yoga, including the history, philosophy, psychology, and social aspects of yoga, particularly Hatha Yoga. Participants also study meditation and how meditation affects performance in daily life. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 173x4
WATER AEROBICS 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

This course in water aerobics is designed to introduce basic fitness concepts as well as basic movement and exercise. Students will develop strength, flexibility, movement memory, balance, coordination, and cardiovascular fitness within a shallow water aerobic format. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

ADAPTED PHYSICAL EDUCATION

**PE/I 184x4
ADAPTED PHYSICAL EDUCATION - SWIMMING 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

Designed for students with disabilities who want to learn to swim and become safe in the water. A completed adapted P.E. physical form, obtained from either the instructor or DSPS, is required prior to participation in this class. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 186x4
ADAPTED PHYSICAL EDUCATION –
STRETCHING AND STRESS REDUCTION 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

Designed for students with disabilities to improve or maintain their flexibility and joint range of motion as well as learn techniques for stress reduction and relaxation. A completed adapted P.E. physical form, obtained from either the instructor or DSPS, is required prior to participation in this class. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 188x4
ADAPTED PHYSICAL EDUCATION - FITNESS AND
CONDITIONING 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

Designed for students with disabilities to improve range of motion, muscular strength, and cardiovascular endurance. A completed adapted P.E. physical form, obtained from either the instructor or DSPS, is required prior to participation in this class. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 189x4
ADAPTED PHYSICAL EDUCATION – RESISTANCE
TRAINING 1 UNIT**

PREREQUISITE: None.

LABORATORY: 3 hours per week.

Designed for students with disabilities to improve muscular strength and endurance. A completed adapted P.E. physical form, obtained from either the instructor or DSPS, is required prior to participation in this class. This course may be taken four times.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

**PE/I 190x4
TAI CHI 1 UNIT**

PREREQUISITE: None.

LECTURE: None.

LABORATORY: 3 hours per week.

This course is designed to study and practice Tai Chi (a moving meditation) from the introductory through advanced levels. The history, research, and benefits of Tai Chi will be examined, and the basic 12, 24, and 42 forms of Tai Chi will be explored. The course will include individual and group instruction and practice.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PE/I 192x4
KARATE: CHINESE KENPO 1 UNIT
PREREQUISITE: None.
LECTURE: None.
LABORATORY: 3 hours per week.
 Designed to study and practice Chinese Kenpo Karate from the introductory through advanced levels. The history, research, and benefits of Kenpo will be examined, and the techniques and master form will be explored. The course will include individual and group instruction and practice.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/T 100x4
TEAM SPORTS ACTIVITIES: BASEBALL 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 Instruction in the skills, techniques, strategies, etiquette, and rules of baseball at beginning, low intermediate, high intermediate and advanced levels of performance. Students will improve their overall physical fitness and develop carryover skills. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/T 104x4
TEAM SPORTS ACTIVITIES: BASKETBALL 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 Instruction in the skills, techniques, strategies, etiquette and rules of basketball at beginning, low intermediate, high intermediate and advanced levels of performance. Students will improve their overall physical fitness and develop carryover skills. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/T 108x4
TEAM SPORTS ACTIVITIES: FOOTBALL 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 This activity course is designed to introduce students to the skills, techniques, strategy, rules as well as ethics of football. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/T 116x4
TEAM SPORTS ACTIVITIES: SOCCER 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 Instruction in the skills, techniques, strategies, etiquette and rules of soccer at beginning, low intermediate, high intermediate, and advanced levels of performance. Students will improve their overall physical fitness and develop carryover skills. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/T 120x4
TEAM SPORTS ACTIVITIES: SOFTBALL 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 Instruction in the skills, techniques, strategies, etiquette and rules of softball at beginning, low intermediate, high intermediate and advanced levels of performance. Students will improve their overall physical fitness and develop carryover skills. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/T 124x4
TEAM SPORTS ACTIVITIES: VOLLEYBALL 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 Instruction in the skills, techniques, strategies, etiquette and rules of volleyball at beginning, low intermediate, high intermediate and advanced levels of performance. Students will improve their overall physical fitness and develop certain carryover skills. This course may be taken four times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/T 132x2
TEAM SPORTS ACTIVITIES: ADVANCED VOLLEYBALL 1 UNIT
PREREQUISITE: None.
LABORATORY: 3 hours per week.
 The course is designed to teach advanced volleyball skills in preparation for intercollegiate competition. Various team offensive systems and team defensive patterns will be studied and analyzed. Enrollment in this course is limited to those with Interscholastic or Intercollegiate experience. This course may be taken two times.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PE/V 100-103
INTERCOLLEGIATE SPORTS ACTIVITIES (VARSITY) 2 UNITS
PREREQUISITE: None.
LABORATORY: 10 hours per week.
 Physical education credit for such varsity intercollegiate sports as baseball, basketball, cross-country, football, golf, swimming, softball, tennis, track and field, volleyball, water polo, and wrestling (Fall and Spring).
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PHYSICAL SCIENCE

DIVISION:	Science and Math
DIVISION DEAN:	Haragewen Kinde, Ed.D.
DEPARTMENT HEAD:	John Stankas, Ph.D. Chemistry 114 (909) 384-8268
DIVISION SECRETARY:	Rose Garcia
DIVISION OFFICE:	Chemistry 121 (909) 384-8645
LIAISON COUNSELOR:	Rafael Herrera, M.S. (909) 384-4404

COURSES OFFERED BY THE DEPARTMENT OF PHYSICAL SCIENCE:

PS 101
INTRODUCTION TO PHYSICAL SCIENCE 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

Fundamental concepts of chemistry, physics, and earth sciences (astronomy, geology, and oceanography) as they apply to everyday life.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

PHYSICS / ASTRONOMY

DIVISION: Science and Math
 DIVISION DEAN: Haragewen Kinde, Ed.D
 DEPARTMENT HEAD: Michael Lysak, Ph.D.
 Physical Science 234
 (909) 384-8529
 DEPARTMENT SECRETARY: Sylvia McDaniel
 DEPARTMENT OFFICE: Physical Science 230
 (909) 384-8520
 DIVISION SECRETARY: Rose Garcia
 DIVISION OFFICE: Chemistry 121
 (909) 384-8645
 LIAISON COUNSELOR: Rafael Herrera, M.S.
 (909) 384-4404

Physics is fundamental science. It is concerned with finding and using the rules that govern everything—from the smallest pieces of the atom to the various collections of atoms—molecules, balls, planets, stars, and more—that compose the myriad contents of the universe.

Physics courses are offered to meet diverse students' needs: (1) PHYSICS 101: an introductory course which is descriptive and uses little mathematics provides an overview of physics for Liberal Arts and Science majors; (2) PHYSICS 150A/B: Physics for the Life Sciences presents physics in sufficient depth for students whose careers in life sciences and related fields will require a physics background with some experience with calculus and (3) PHYSICS 200, 201 and 210 provide a rigorous development of physics using calculus to prepare students for further studies in the physical sciences, engineering, and mathematics.

Students majoring in physics will be rewarded on the personal level with a deep understanding of the world around us. On a professional level, physicists find a variety of employment opportunities which are relatively free of ethnic and gender bias, pay well, reward creativity, and are just plain fun.

Astronomy is the study of the vast universe around us. We start on the earth and sweep outward past the moon to the planets of the solar system and our sun, one of the billions of stars in our galaxy. On our journey through the universe, we explore an exciting realm populated by black holes, quasars, red giants, white dwarfs, and more.

Astronomy is taught in a modern planetarium which accurately simulates the nighttime sky, showing the positions and motions of the stars and planets. The real sky can be viewed through the sixteen-inch reflector telescope in the N. A. Richardson Astronomical Observatory.

Students planning to transfer to a four-year institution and major in either physics or astronomy should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Employ vocabulary of the subject studied.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.
- Defend a logical hypothesis to explain observed phenomenon.

PHYSICS - ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Physics, students must complete the following required courses plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

REQUIRED COURSES:	UNITS
PHYSIC 200 Physics I	6
PHYSIC 201 Physics II	6
PHYSIC 210 Modern Physics	4
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5
TOTAL UNITS:	29

RECOMMENDED COURSES:	UNITS
CHEM 150 General Chemistry I	5
CHEM 151 General Chemistry II	5

ASTRONOMY
ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Astronomy, students must complete the following required courses plus the general breadth requirements for the Associate Degree (minimum 60 semester units).

REQUIRED COURSES:	UNITS
ASTRON 123 Introduction to Astronomy	4
or	
ASTRON 120 Introduction to Astronomy	
and	(3)
ASTRON 125 Astronomy Laboratory	(1)
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5
PHYSIC 200 Physics I	6
TOTAL UNITS:	23

COURSES OFFERED BY THE DEPARTMENT OF PHYSICS/ASTRONOMY:

PHYSIC 010
FOUNDATIONAL SKILLS FOR PHYSICS MAJORS
.25 UNIT

PREREQUISITE: None.

COREQUISITE: PHYSIC 150A, 150B, 200, 201, or 210.

LECTURE: None.

This course enables students to develop and strengthen foundational science skills during enrollment in major's-level science coursework. Workshops emphasize skill-building in the analytical and communication skills necessary for success in major's-level science classes and professional-level science careers. Topics include applied math, word problems, data manipulation, graphing, scientific writing, critical thinking, scientific method, and the use of technology. Graded credit/no credit only.

Associate Degree Applicable

PHYSIC 101
BASIC PHYSICS 4 UNITS
PREREQUISITE: MATH 090.
DEPARTMENTAL ADVISORY: ENGL 015 or eligibility for ENGL 101.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.
A first course in physics. Topics include motion, forces, energy, waves, light, electricity, magnetism and concepts of modern physics.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PHYSIC 150A
GENERAL PHYSICS FOR THE LIFE SCIENCES I 5 UNITS
PREREQUISITE: PHYSIC 101 and MATH 103 and ENGL 015.
LECTURE: 3 hours per week and
LABORATORY: 6 hours per week.
The first course in a two-semester physics sequence designed primarily for students in biology, pharmacology, pre-medicine, physical therapy, allied health services, and physical education. Topics include mechanics, waves, fluids, and thermodynamics. Concepts of calculus will be developed and applied to a variety of situations.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): PHYS 2

PHYSIC 150B
GENERAL PHYSICS FOR THE LIFE SCIENCES II 5 UNITS
PREREQUISITE: PHYSIC 150A.
LECTURE: 3 hours per week and
LABORATORY: 6 hours per week.
The second course in two-semester physics sequence designed primarily for students in biology, pharmacology, pre-medicine, physical therapy, allied health services, and physical education. Topics include electricity, magnetism, optics, and modern physics. The needed concepts of calculus will be developed and used where appropriate.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): PHYS 4

PHYSIC 200
PHYSICS I 6 UNITS
PREREQUISITES: PHYSIC 101 and ENGL 015 or eligibility for ENGL 101.
PREREQUISITE/COREQUISITE: MATH 250.
DEPARTMENTAL ADVISORY: Students who have successfully completed High School Physics may substitute that for the Physics prerequisite listed above.
LECTURE: 4 hours per week and
LABORATORY: 5 hours per week.
A calculus based physics course covering mechanics, waves, fluids, and thermodynamics. This course is designed to satisfy the lower division physics requirement for majors in physics, engineering, astronomy, chemistry, geology, computer science and mathematics.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): PHYSIC 200 + PHYSIC 201 = CAN PHYS SEQ B

PHYSIC 201
PHYSICS II 6 UNITS
PREREQUISITES: PHYSIC 200.
PREREQUISITE/COREQUISITE: MATH 251.
LECTURE: 4 hours per week and
LABORATORY: 5 hours per week.
A calculus based physics course covering electricity, magnetism, optics, and modern physics. This course is designed to satisfy the lower division physics requirement for majors in physics, engineering, astronomy, chemistry, geology, computer science and mathematics.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): PHYSIC 200 + PHYSIC 201 = CAN PHYS SEQ B

PHYSIC 210
MODERN PHYSICS 4 UNITS
PREREQUISITES: PHYSIC 201 or PHYSIC 150B and MATH 251.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.
A calculus based physics course in modern physics. Topics include relativity, quantum mechanics, atoms, molecules, condensed matter, nuclear and particle physics.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): PHYS 16

PHYSIC 222
SPECIAL PROBLEMS IN PHYSICS I 1 UNIT
PREREQUISITES: PHYSIC 101 and ENGL 101.
INDEPENDENT STUDY: 3 hours per week.
Assigned problems involving library and laboratory work for selected students who are interested in furthering their knowledge of physics on an independent study basis. Students are required to devote three hours per week to their project throughout the semester.
Associate Degree Applicable
Course credit transfers to CSU and UC.
Limited transfer to UC; credit determined after transfer to UC.

PHYSIC 223
SPECIAL PROBLEMS IN PHYSICS II 2 UNITS
PREREQUISITES: PHYSIC 101 and ENGL 101.
INDEPENDENT STUDY: 6 hours per week.
Assigned problems involving library and laboratory work for selected students who are interested in furthering their knowledge of physics on an independent study basis. Students are required to devote six hours per week to their project throughout the semester.
Associate Degree Applicable
Course credit transfers to CSU and UC.
Limited transfer to UC; credit determined after transfer to UC.

ASTRON 120
INTRODUCTION TO ASTRONOMY 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
An introduction to astronomy, the ultimate adventure. Our very big universe can be described by a small set of knowable rules through a logical method called science, where the excitement of an evolving and sometimes violent universe of stars and galaxies is explored. Topics include the night sky, motions of the Sun, the Moon, and the planets, light, properties and life-cycles of stars with a detailed look at our Sun, galaxies and the origin of the universe.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

ASTRON 123
INTRODUCTION TO ASTRONOMY 4 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

An introduction to astronomy, the ultimate adventure. Our very big universe can be described by a small set of knowable rules through a logical method called science, where the excitement of an evolving and sometimes violent universe of stars and galaxies is explored. Topics include the night sky, motions of the Sun, the Moon, and the planets, light, properties and life-cycles of stars with a detailed look at our Sun, galaxies and the origin of the universe. A series of laboratories supplement and enhance topics discussed in lecture.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

ASTRON 125
ASTRONOMY LABORATORY 1 UNIT
PREREQUISITE: ASTRON 120.

LABORATORY: 3 hours per week.

Our very big universe can be described by a small set of knowable rules through a logical method called science. Laboratory work brings a hands-on enrichment and deeper understanding of topics discussed in the astronomy lecture. Topics include use of star maps, identification of constellations, determination of orbits, rotation rate and mass of celestial objects using astronomical methods of observation and analysis. Students will also perform 3-D modeling of the solar system and constellations, study the nature of light, lenses and telescopes, make some direct observations with telescopes and utilize astronomical software.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

ASTRON 222
SPECIAL PROBLEMS IN ASTRONOMY I 1 UNIT
PREREQUISITE: None.

INDEPENDENT STUDY: 3 hours per week.

Assigned problems involving library and laboratory work for selected students who are interested in furthering their knowledge of astronomy on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

Course credit transfers to CSU and UC.

Limited transfer to UC; credit determined after transfer to UC.

ASTRON 223
SPECIAL PROBLEMS IN ASTRONOMY II 2 UNITS
PREREQUISITE: None.

INDEPENDENT STUDY: 6 hours per week.

Assigned problems involving library and laboratory work for selected students who are interested in furthering their knowledge of astronomy on an independent study basis. Students are required to devote six hours per week to their project throughout the semester. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

Course credit transfers to CSU and UC.

Limited transfer to UC; credit determined after transfer to UC.

PHYSIOLOGY

See courses within the Department of BIOLOGY

POLICE SCIENCE

(also see CRIMINAL JUSTICE)

DIVISION: Criminal Justice
ADMINISTRATIVE DEAN: Gloria Fisher, J.D.
DIVISION SECRETARY: Sharen Chavira
CAMPUS OFFICE: Planetarium, 2nd Floor
(909) 384-4431
GLEN HELEN OFFICE: Sheriff's Training Center
(909) 473-2695
LIAISON COUNSELOR: Joyce Smith, M.A.
(909) 384-4404

One of modern government's most challenging tasks is the enforcement of laws and the protection of lives and property while respecting constitutional individual rights. Carefully selected, highly trained and motivated peace officers are central in this task. The Police Science program offers three types of training: (1) the Basic Law Enforcement Academy is presented in both an intensive and extended format for students interested in becoming peace officers; (2) reserve officer training is offered, leading to positions as Reserve Deputy Sheriffs or Police Officers; and (3) an advanced training program is offered for those currently employed as peace officers.

The state screening requirements for admission into the Basic Law Enforcement Academy are: A person must have a physical examination, stress EKG, Department of Justice/Federal Bureau of Investigation fingerprint check, a valid California drivers license, and never have been convicted of a felony. The Police Science classes are certified by the California Commission on Peace Officer Standards and Training.

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

The Police Science courses listed may not be offered every semester due to instructor availability. Please refer to the college semester schedule of class offerings.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Find and interpret information.
- Evaluate authority and bias of information.
- Utilize technology to organize and present information.
- Demonstrate working knowledge of basic computer function.
- Locate, evaluate and select evidence to support or discredit an argument.
- Construct a persuasive argument.
- Apply learned knowledge to new situations.

- Apply principles of scientific reasoning to solve problems.
- Accept responsibility for own actions.
- Demonstrate respect for a diversity of ideas and the rights of others.
- Exhibit personal, professional and academic honesty.
- Display behavior consistent with ethical standards within a discipline.
- Apply lessons from the past to ethical issues faced in the present.
- Evaluate own ethical beliefs in relationship to moral dilemmas.
- Recognize own strengths and weaknesses.
- Set goals to create balance in personal and professional life.
- Demonstrate etiquette in face-to-face and written interactions.
- Work effectively in group settings.
- Utilize conflict resolution skills.
- Demonstrate knowledge of and respect for other cultures.

COURSES OFFERED BY THE DEPARTMENT OF POLICE SCIENCE:

**POLICE 002
BASIC LAW ENFORCEMENT ACADEMY 27.75 UNITS
COREREQUISITES: POLICE 100, POLICE 101, POLICE 102 and POLICE 103.**

**LECTURE: 312 hours per semester and
LABORATORY: 392 hours per semester.**

Basic training for new Law Enforcement Officers including administration of justice, patrol procedures, firearms, defensive tactics, physical training, First Aid, cardiopulmonary resuscitation (CPR), traffic investigation, water safety, and driver training. **Enrollment is limited to those students who meet state screening requirements as outlined in the Government Code, California Penal Code and the Commission on Peace Officer Standards and Training Administrative Manual.**

Associate Degree Applicable

**POLICE 003X20
USE OF FORCE-FIRST AID CROWD CONTROL .25 UNIT**

**PREREQUISITE: CRMJUS 058.
LECTURE: 2 hours per semester and
LABORATORY: 6 hours per semester.**

This course provides use of force training updates and instruction in tactics, law enforcement procedures, and case law, which are essential for the law enforcement professional. This course emphasizes training in CPR/First Aid training, and the use of passive resistor crowd control techniques. This training qualifies as credit toward POST's 24-hour Continuous Professional Training (CPT) requirement for peach officers. This course may be taken twenty times.

Associate Degree Applicable

**POLICE 004X20
USE OF FORCE-DECISION MAKING LESS .25 UNIT**

**PREREQUISITE: CRMJUS 058.
LECTURE: 2 hours per semester and
LABORATORY: 6 hours per semester.**

This course provides use of force training updates and instruction in tactics, law enforcement procedures, and case law, which are essential for the law enforcement professional. This course emphasizes training in less lethal systems, as well as critical incident judgment and decision-making skills. A variety of subjects are combined to provide the most current training available, training which will also satisfy POST's 24-hour Continuous Professional Training (CPT) requirement for peach officers. This course may be taken twenty times.
Associate Degree Applicable

**POLICE 005X20
USE OF FORCE-TACTICAL COMMUNICATION AND
CHEMICAL AGENTS .25 UNIT**

**PREREQUISITE: CRMJUS 058.
LECTURE: 2 hours per semester and
LABORATORY: 6 hours per semester.**

This course provides use of force training updates and instruction in tactics, law enforcement procedures, and case law, which are essential for the law enforcement professional. This course emphasizes training in tactical communication and the use of chemical agents in the field. This course qualifies as credit toward POST's 24-hour Continuous Professional Training (CPT) requirement for peach officers. This course may be taken twenty times.
Associate Degree Applicable

**POLICE 010
INTERVIEW AND INTERROGATION .50 UNIT
PREREQUISITE: CRMJUS 058.**

LECTURE: 8 hours per semester.

The systematic questioning of a suspect including legal constraints; the Miranda warning; absence of coercion; when and where to interrogate; suspect evaluation; interrogation techniques; interviewing victims and witnesses; and developing other sources of information. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

**POLICE 015
BASIC MOUNTED PATROL 1.25 UNITS
PREREQUISITE: CRMJUS 059.**

**LECTURE: 10 hours per semester and
LABORATORY: 30 hours per semester.**

This course is designed to train mounted personnel with a focus on patrol functions and techniques to control their mounts in various situations. Horse and rider will be exposed to crowd control, congested areas and noise-structured distractions. **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 016
MOUNTED SEARCH AND RESCUE .75 UNIT
PREREQUISITE: None.

LECTURE: 8 hours per semester and
LABORATORY: 8 hours per semester.

The intent of this class is to provide the students with an understanding of the responsibilities and functions of mounted personnel for search and rescue. This is a beginning course for students interesting in joining a search and rescue mounted team.

Associate Degree Applicable

POLICE 017
MOUNTED PATROL UPDATE .50 UNIT
PREREQUISITE: POLICE 015.

LECTURE: 4 hours per semester and
LABORATORY: 12 hours per semester.

This course is designed to update mounted personnel about patrol functions and new techniques to control their mounts in various situations. Horse and rider will be exposed to crowd control, congested areas and noise/structured distractions. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

POLICE 018
BUILDING ENTRIES AND SEARCHES .50 UNIT
PREREQUISITE: POLICE 001.

LECTURE: 6 hours per semester and
LABORATORY: 2 hours per semester.

This course provides law enforcement officers with the knowledge needed to gather intelligence information, prepare a tactical plan, and execute a proper building entry and search. Officers will participate in open classroom discussion and role-playing exercises. **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 020
GANG AWARENESS 1.25 UNITS
PREREQUISITE: POLICE 001 or CRMJUS 059.

LECTURE: 20 hours per semester and
LABORATORY: 4 hours per semester.

This course provides a thorough overview that will enable law enforcement students to apply the information they will learn about street, prison and motorcycle gangs to their positions as field officers or jail deputies. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 021x4
ADVANCED GANG AWARENESS, UPDATE .50 UNIT

PREREQUISITE: POLICE 020.
LECTURE: 8 hours per semester.

This constantly updated course will enable students to apply information they will learn about the most current street, prison and motorcycle gang trends to their daily assignments as law enforcement officers. Officer safety issues will also be addressed. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.** This course may be taken four times.

Associate Degree Applicable

POLICE 025
CLANDESTINE LABORATORY SAFETY .50 UNIT
PREREQUISITE: POLICE 001 or CRMJUS 059.

LECTURE: 8 hours per semester.

Law enforcement officers and other public safety professionals will learn of current trends as well as potential safety concerns, (fire, explosions, poisoning, etc.) related to clandestine drug laboratories. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 027
PASSIVE ALCOHOL SCREENING DEVICE TRAINING .25 UNIT

PREREQUISITES: POLICE 028 or CRMJUS 059.

LECTURE: 3 hours per semester and
LABORATORY: 1 hour per semester.

Introduces the proper procedures for conducting an in the field breath test, accuracy check and calibration of the Intoximeter Alco- Sensor IV Passive Alcohol Screening (PAS) device. Officers will receive instruction relating to the laws and recent case law relevant to the PAS device. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 028
BREATHALYZER TRAINING .25 UNIT
PREREQUISITE: None.

LECTURE: 3 hours per semester and
LABORATORY: 1 hour per semester.

Covers the chemical and psychological effects of alcohol on the human body, the theory of breath testing, and the proper use of current breath testing equipment. The course will also cover legal aspects of breath testing and courtroom testimony as it applies to breath test results.

Associate Degree Applicable

POLICE 029
DRIVING WHILE INTOXICATED 1.2 UNITS
PREREQUISITE: CRMJUS 058.

LECTURE: 20 hours per semester and
LABORATORY: 4 hours per semester.

All aspects of driving while intoxicated from detection to courtroom testimony including nystagmus, the field testing of alcohol and drug use, and recent case law. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 030
PERFORMANCE APPRAISALS .50 UNIT
PREREQUISITE: None.

LECTURE: 8 hours per semester.

This course is designed to help law enforcement supervisors develop their skills in evaluating subordinate employees. Topics include the purpose of performance appraisals; using performance appraisals to manage and motivate employees; creating the paper trail; elements and styles of grammar.

Associate Degree Applicable

POLICE 036
SURVIVAL SPANISH FOR LAW ENFORCEMENT .25 UNIT

PREREQUISITE: CRMJUS 058.
LECTURE: 4 hours per semester and
LABORATORY: 4 hours per semester.

Course enables students to acquire skills to facilitate communication with Spanish speaking members of the community. This course emphasizes phrases specific to officer safety. Focus is on practical phrases, commands and questions needed by law enforcement in commonly encountered field situations.
Associate Degree Applicable

POLICE 039
DIVE RESCUE 1 UNIT

PREREQUISITE: POLICE 001.
LECTURE: 10 hours per semester and
LABORATORY: 14 hours per semester.

Students already possessing a Basic SCUBA certification and who are interested in joining a dive rescue team will learn about team organization, cold water rescue, search patterns, victim retrieval, auto accidents, underwater retrieval, and media relations. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 040
BASIC BICYCLE POLICE COURSE 1 UNIT

PREREQUISITE: POLICE 001 or CRMJUS 058.
DEPARTMENTAL ADVISORY: Students must be in good physical condition and be proficient bicyclers.
LECTURE: 12 hours per semester and
LABORATORY: 20 hours per semester.

This course is designed to improve student's bicycle riding skills and techniques of bicycle patrolling. The course will cover topics dealing with skills, equipment, nutrition, physical fitness and subject/suspect contacts. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 041
BICYCLE PATROL INSTRUCTOR COURSE 1.5 UNITS

PREREQUISITE: POLICE 040.
DEPARTMENTAL ADVISORY: Students must be in good physical condition and be proficient bicyclers.
LECTURE: 14.5 hours per semester and
LABORATORY: 25.5 hours per semester.

This course is designed to give students the skills to teach courses in bicycle patrolling and an opportunity to improve their bicycle riding skills. The course will cover topics dealing with skills, equipment, nutrition, physical fitness, subject/suspect contacts and curriculum development and presentation. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 046
BASIC POLICE RIFLE MARKSMANSHIP 1.5 UNITS

PREREQUISITE: POLICE 001.
LECTURE: 20 hours per semester and
LABORATORY: 20 hours per semester.

This course provides students with the basic rifle marksmanship skills necessary to effectively perform a vital component of a police SWAT or tactical operation. The course will familiarize students with the history, duties, equipment and skills of the police rifle marksman, and will also address legal and liability issues. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 047
FIREARMS INSTRUCTOR COURSE 3 UNITS

PREREQUISITE: POLICE 001.
LECTURE: 40 hours per semester and
LABORATORY: 40 hours per semester.

This course is designed to prepare students to become firearms instructors. Includes both theory and practice in strategies of firearms training. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 050
NARCOTICS .50 UNIT

PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.

A narcotics update for patrol officers with an emphasis on identification of narcotics, current street trends, terminology, packaging, price, case preparation and the effects of drugs on users. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 051
RECOGNIZING NARCOTICS TRAFFICKERS .50 UNIT

PREREQUISITE: CRMJUS 059.
LECTURE: 8 hours per semester.

This course will provide students with the knowledge of and ability to recognize signs and indicators related to narcotic/contraband trafficking. Examines recent case law interpretations related to search and seizure, detentions, evidence collection and case preparation. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable.

POLICE 053
DEALING WITH INFORMANTS .25 UNIT

PREREQUISITE: POLICE 001.
LECTURE: 5 hours per semester and
LABORATORY: 3 hours per semester.

Scenarios and basic skills will provide students with approaches for making day-to-day contact with informants. Identify potential informant, and deal with department policy and procedure. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 054
SUBJECT CONTACTS .25 UNIT
PREREQUISITE: POLICE 001.
LECTURE: 5 hours per semester and
LABORATORY: 3 hours per semester.
Scenarios and basic skills will provide the law enforcement officer with some new ideas and approaches to the everyday subject contacts. A mixture of lecture and practical application will reinforce the information discussed in the classroom. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 055
MDT, VDT AND CAD COMPUTER OPERATIONS .2-4 UNITS
PREREQUISITE: CRMJUS 058.
LECTURE: 4-60 hours per semester.
LABORATORY: 4-60 hours per semester.
Mobile Digital Terminal, Video Display Terminal, and Computer Aided Dispatch Operations course designed to train police personnel on computer law enforcement equipment. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.** Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable

POLICE 057
BASIC LAW ENFORCEMENT REPORT WRITING 2 UNITS
PREREQUISITE: None.
LECTURE: 21 hours per semester and
LABORATORY: 35 hours per semester.
This course is designed to address fundamental problems in writing reports unique to the law enforcement field. Focus is on grammar, spelling, sentence structure, paragraph structure, report writing format, courtroom requirements, interviewing, scenario writing and crime scene note taking.
Associate Degree Applicable

POLICE 058
REPORT WRITING AND COURTROOM SURVIVAL .50 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.
A review of the five major report writing problems and the solution to each. Includes suggestions for reducing the time spent writing a report while increasing clarity and usefulness. Additionally, this course prepares officers to testify in court including retrial preparation, the role of a witness, how to handle cross-examination, and the police/prosecutor relationship. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 059
SEARCH WARRANTS .50 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.
How to assemble and execute a search warrant including definition, categories of property for which a warrant may be issued, descriptions of persons and places, description of property, officer expertise, probable cause, nighttime search authority, protection of informants, and serving the warrant. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 063
ARREST AND CONTROL .50 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.
Designed as a review of basic fundamentals for controlling, searching, and cuffing single and multiple suspects, this course includes mental preparation and current techniques for arrest and control. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.** Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable

POLICE 064
IDENTIFICATION, COLLECTION AND PRESERVATION OF EVIDENCE .50 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.
The advantages of careful collection and examination of physical evidence with an emphasis on what constitutes physical evidence, how to properly collect it, and how crime labs use the evidence. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 065
CIVIL LIABILITIES .50 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.
A review of civil liabilities and current judicial thinking including suggestions for protecting officers from becoming targets for litigation and other adverse actions. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 066
PRELIMINARY INVESTIGATION .50 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.
A review of preliminary investigation techniques including recognition and collection of evidence available at the scene, crime scene sketching and diagramming, latent print collection, and report preparation. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.** Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable

POLICE 069
TRAFFIC RECONSTRUCTION INVESTIGATION 4.00 UNITS

PREREQUISITE: POLICE 074.
LECTURE: 56 hours per semester and
LABORATORY: 24 hours per semester.

This is an advance technical course that includes higher mathematics, physics, momentum theories, vehicle dynamics, reconstruction methodology and motorcycle, auto-pedestrian/bicycle, and heavy duty articulated vehicle collision analysis. The student will build on concepts taught in basic, intermediate and advanced traffic accident investigation school.

Associate Degree Applicable

POLICE 070
VEHICLE STOPS .50 UNIT
PREREQUISITE: CRMJUS 058.

LECTURE: 8 hours per semester.

An update of current techniques utilized in car, van, and motorcycle stops including high-risk, low-risk, daytime, nighttime, use of lights, approaches, suspect control and removal of drivers from their vehicles. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 072
BASIC TRAFFIC COLLISION INVESTIGATION 2 UNITS

PREREQUISITE: POLICE 001.
LECTURE: 30 hours per semester and
LABORATORY: 10 hours per semester.

Accident investigation from on-the-scene procedures to follow up. Practical application of how to use report forms and accident investigation terminology together with the study of vehicle code law, court decisions and other traffic-related subject matter. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 073
INTERMEDIATE TRAFFIC COLLISION INVESTIGATION 1.5 UNITS

PREREQUISITE: POLICE 072.
LECTURE: 22 hours per semester and
LABORATORY: 18 hours per semester.

This course is devoted to the basics of tiremark identification and analysis, including case preparation and courtroom testimony; determination of coefficient of friction and drag factor; and speed estimates using various equations. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 074
ADVANCED TRAFFIC COLLISION INVESTIGATION 4 UNITS

PREREQUISITE: POLICE 073.
LECTURE: 56 hours per semester and
LABORATORY: 24 hours per semester.

This course is designed for experienced traffic collision investigators. Emphasis is on the applications of mathematics and physics to collision analysis, scene documentation and evaluation. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 075
HOSTAGE SITUATIONS .50 UNIT
PREREQUISITE: CRMJUS 058.

LECTURE: 8 hours per semester.

Designed to provide patrol officers an understanding of the concept of hostage negotiations with emphasis on when to call the negotiation team and how to control the scene until assistance arrives. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 077
TACTICAL PLANNING FOR PATROL .50 UNIT
PREREQUISITE: POLICE 001.

LECTURE: 6 hours per semester and
LABORATORY: 2 hours per semester.

Supervising and participating in a critical incident can be, to say the least, challenging. This course is designed for patrol officers and supervisors who will have to plan, coordinate, and participate in tactical operations involving patrol personnel. Sound tactical principles and options, as well as psychological aspects of critical incident response are discussed. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 078
OFFICER SAFETY/FIELD TACTICS 2 UNITS
PREREQUISITE: POLICE 001.

LECTURE: 32 hours per semester and
LABORATORY: 8 hours per semester.

Safety awareness and the use of proper field tactics in the performance of peace officer duties. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 079
DEFENSIVE TACTICS AND WEAPONLESS DEFENSE
INSTRUCTOR COURSE 2.50 UNITS

PREREQUISITE: POLICE 001.
LECTURE: 20 hours per semester and
LABORATORY: 60 hours per semester.

Scenarios and basic skills will provide law enforcement with some new ideas and approaches to delivering the everyday defensive tactics to officers. Topics include physical fitness, assessment tests, handcuffing and searching techniques and active counter measures, LVNR (Lateral Vascular Neck Restraint) case law, liability and instructor development. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 080
FIELD TRAINING OFFICER 2 UNITS
PREREQUISITE: POLICE 001.

LECTURE: 32 hours per semester and
LABORATORY: 8 hours per semester.

Instruction in skills and information necessary for competent performance in the role of a Field Training Officer. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

Associate Degree Applicable

POLICE 081
PLAIN CLOTHES OFFICER SURVIVAL 1.5 UNITS
PREREQUISITE: POLICE 001 or CRMJUS 060.
LECTURE: 16 hours per semester and
LABORATORY: 24 hours per semester.
This course is designed to expose students to the unique challenges associated with off-duty and plainclothes assignments. Topics discussed will involve tactical considerations, current trends and liability issues. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 082
PROBLEM-ORIENTED POLICING .25 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 4.5 hours per semester and
LABORATORY: 3.5 hours per semester.
Alternatives to present policing attitudes with an emphasis on crime prevention, problem-solving, and communication skills. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 084
POLICE SUPERVISION 4 UNITS
PREREQUISITE: POLICE 076x4.
LECTURE: 80 hours per semester.
Techniques of police supervision including problems of policy and procedures, leadership and responsibilities, performance evaluation, field problems, instructional and disciplinary methods, motivation, supervisory investigations and reports, and psychological aspects of supervision. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 085
ADVANCED POLICE SUPERVISION 2 UNITS
PREREQUISITE: POLICE 084.
LECTURE: 30 hours per semester and
LABORATORY: 10 hours per semester.
This course will expand on skills learned in the 80-hour Police Supervision course. It will expose new supervisors to incident command management, new training methods, supervisory styles, time management, and problem solving techniques and decision making skills. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable

POLICE 086
DOMESTIC VIOLENCE .50 UNIT
PREREQUISITE: CRMJUS 058.
LECTURE: 8 hours per semester.
An introduction to the psychological state of victims of violence including battering, child abuse, and sexual assault. Emphasis on the development of positive intervention strategies and the identification of agencies designed to assist victims. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 087
CHILD ABUSE 2.25 UNITS
PREREQUISITE: CRMJUS 058.
LECTURE: 32 hours per semester and
LABORATORY: 8 hours per semester.
The Child Abuse Investigation course will provide students with the skills to recognize, evaluate and synthesize all aspects of investigating alleged crimes against children. The crimes of child neglect, sexual and physical abuse and exploitation will be analyzed by the students. The course will familiarize officers with the legal rights and responsibilities of all involved parties in these types of crimes. This course also is designed to satisfy Peace Officers Standards and Training's mandates on child abuse per the Penal Code sections 13516 and 13517. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 088
HATE AND BIAS CRIMES 1.25 UNITS
PREREQUISITE: POLICE 001.
LECTURE: 16 hours per semester and
LABORATORY: 9 hours per semester.
The goal of the program is to give law enforcement agencies the tools needed to recognize hate/bias crimes. It enhances the effectiveness of law enforcement agencies with investigation and prosecution of hate/bias crimes. Emphasis will be placed on victim and community needs, and initial response on patrol units. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 090
TERRORISM: CURRENT THREAT AND RESPONSE .50 UNIT
PREREQUISITE: POLICE 001.
LECTURE: 8 hours per semester.
An advanced officer training course on the nature and severity of the threat by terrorist activities and strategies to mitigate the threat. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 091
TERRORISM: BOMBS AND BOMBINGS .25 UNIT
PREREQUISITE: POLICE 001.
DEPARTMENTAL ADVISORY: POLICE 097.
LECTURE: 4 hours per semester .
LABORATORY: 4 hours per semester.
An advanced officer training course on improvised explosive devices and strategies for effectively and safely responding to bomb-related incidents. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 092
HIGH TECH CRIMES .75 UNIT
PREREQUISITE: POLICE 001.
LECTURE: 12 hours per semester and
LABORATORY: 4 hours per semester.
 This course is designed to assist investigators in becoming aware of high tech criminal activity and to increase arrest and conviction rates involving high tech crimes. Officers will learn how to identify, write search warrants for high tech crimes, and explain the procedures in collecting evidence for credit card, computer and cellular phone crimes. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 093
RACIAL PROFILING .25 UNIT
PREREQUISITE: POLICE 001.
LECTURE: 4 hours per semester and
LABORATORY: 2 hours per semester.
 This course clarifies what constitutes racial profiling, conceptually and legally. Students examine how the civil rights movement redefined the role of law enforcement. It covers the key indices that define culture and show how racial profiling impacts everyone. This course meets the training mandates for 13519.4PC.
Associate Degree Applicable

POLICE 095
JAIL OPERATIONS 3.25 UNITS
PREREQUISITE: POLICE 001.
LECTURE: 56 hours per semester and
LABORATORY: 3 hours per semester.
 The purpose of the course is to prepare the new or experienced peace officer for the duties or tasks which are performed by officers in correctional facilities, regardless of location, size or budget of the employing agency. This course will provide the student with the knowledge and skills to combine academic concepts of classroom training with the realities of correctional facility work. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**
Associate Degree Applicable

POLICE 100
CRIMINAL LAW 3 UNITS
PREREQUISITE None.
COREQUISITES: POLICE 002, POLICE 101, POLICE 102 and POLICE 103.
LECTURE: 48 hours per semester.
 The historical development and theories associated with criminal law and its contemporary application. This course will focus on the relationship between criminal law and the criminal justice system. Classification of crimes and their application to the criminal justice system will also be covered in the course. **ENROLLMENT IS LIMITED TO THOSE STUDENTS WHO MEET THE SCREENING REQUIREMENTS AS OUTLINED IN THE GOVERNMENT CODE, PENAL CODE AND THE COMMISSION ON PEACE OFFICER STANDARDS AND TRAINING ADMINISTRATIVE MANUAL.**
Associate Degree Applicable
Course credit transfers to CSU

POLICE 101
PROCEDURE AND EVIDENCE 3 UNITS
PREREQUISITE: None.
COREQUISITES: POLICE 002, POLICE 100, POLICE 102 and POLICE 103.
LECTURE: 48 hours per semester.
 This course will address the origin, concepts and philosophy of evidence, search and seizure, degrees of evidence, case studies, evidence procedures, judicial theories and decisions interpreting individual rights. **ENROLLMENT IS LIMITED TO THOSE STUDENTS WHO MEET THE SCREENING REQUIREMENTS AS OUTLINED IN THE GOVERNMENT CODE, CALIFORNIA PENAL CODE AND THE COMMISSION ON PEACE OFFICER STANDARDS AND TRAINING ADMINISTRATIVE MANUAL.**
Associate Degree Applicable
Course credit transfers to CSU

POLICE 102
COMMUNITY POLICING 3 UNITS
PREREQUISITE: None
COREQUISITES: POLICE 002, POLICE 100, POLICE 101 and POLICE 103
LECTURE: 48 hours per semester.
 This course will address the origin, concepts and philosophy of community policing, cultural diversity, victim awareness and the development of positive relationships with the public. **ENROLLMENT IS LIMITED TO THOSE STUDENTS WHO MEET THE SCREENING REQUIREMENTS AS OUTLINED IN THE GOVERNMENT CODE, CALIFORNIA PENAL CODE AND THE COMMISSION ON PEACE OFFICER STANDARDS AND TRAINING ADMINISTRATIVE MANUAL.**
Associate Degree Applicable
Course credit transfers to CSU

POLICE 103
INTRODUCTION TO CRIMINAL INVESTIGATION 3 UNITS
LECTURE: 48 hours per semester.
PREREQUISITE: None.
COREQUISITES: POLICE 002, POLICE 100, POLICE 101 and POLICE 102.
 This course will address the examination of crime, evidence and police procedures in investigating crime. This includes organized crime, street crime and white-collar crime. **ENROLLMENT IS LIMITED TO THOSE STUDENTS WHO MEET SCREENING REQUIREMENTS AS OUTLINED IN THE GOVERNMENT CODE, CALIFORNIA PENAL CODE AND THE COMMISSION ON PEACE OFFICER STANDARDS AND TRAINING ADMINISTRATIVE MANUAL.**
Associate Degree Applicable
Course credit transfers to CSU

POLICE 996-997
SELECTED STUDIES IN POLICE SCIENCE .25-4 UNITS
PREREQUISITE: None.
LECTURE: 4-64 hours per semester and/or
LABORATORY: 8-144 hours per semester.
 Seminars on selected studies in Police Science designed to address current issues and help peace officers with everyday problems, on topics such as law enforcement for school police, law enforcement bicycle patrol, verbal judo for law enforcement officers, and use of force issues. Note: It is not anticipated that these courses will be offered during the current academic year. Please contact the Division Office for more information.
Not Applicable to the Associate's Degree

POLITICAL SCIENCE

DIVISION: Social Science & Human Development
DIVISION DEAN: Janice Noble, Ph.D.
DEPARTMENT HEAD: Edward Millican, Ph.D.
DIVISION SECRETARY: Karen Deck
DIVISION OFFICE: Liberal Arts 122
(909) 384-8603
LIAISON COUNSELOR: Laura Gomez, M.A.
(909) 384-4404

The Department of Political Science offers courses which satisfy general education requirements for students who wish to graduate with an Associate of Arts degree and/or transfer to four year institutions in pursuit of a baccalaureate degree. Political science courses satisfy the California State government and institutions requirement for the baccalaureate degree.

Students planning to transfer to a four-year institution and major in political science should consult with a counselor regarding the transfer process and lower division requirements. Political science provides useful preparation for students interested in careers in politics or government service, teaching, law enforcement, and the legal professions.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.
- Find and interpret information.
- Assume civic, political or social responsibilities.

COURSES OFFERED BY THE DEPARTMENT OF POLITICAL SCIENCE:

POLIT 100
AMERICAN POLITICS 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

Basic introduction to American government and politics designed to meet the state requirement in United States and California constitution and government, primarily concerned with American national government. Includes an introduction to democratic political theory, the scope of modern government, and state and local government in California.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): GOVT 2

POLIT 110
INTRODUCTION TO POLITICAL THEORY 3 UNITS
PREREQUISITE: None.

LECTURE: 3 hours per week.

This course surveys Western political thought from classical times to the contemporary period, and explores such controversial political questions as the nature of justice, the morality of political deception and violence, the proper limits of governmental power, the virtues (and challenges) of political diversity, and the future of the bourgeois state.

Associate Degree Applicable

Course credit transfers to CSU and UC.

POLIT 110H
INTRODUCTION TO POLITICAL THEORY - HONORS
3 UNITS

PREREQUISITE: None.

LECTURE: 3 Hours per week.

This course utilizes selected primary texts to survey Western political thought from classical times to the contemporary period, and explores such controversial political questions as the nature of justice, the morality of political deception and violence, the proper limits of governmental power, the virtues (and challenges) of political diversity, and the future of the bourgeois state. Enrollment is limited to students eligible for the Honors Program.

Associate Degree Applicable

Course transfers to CSU and UC.

POLIT 138
GROUP LEADERSHIP 3 UNITS
PREREQUISITE: None.

LECTURE: 1 hour per week and

LABORATORY: 6 hours per week.

Principles and practices for effective work in- group, group processes, and group leadership.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

POLIT 139
COMMUNITY LEADERSHIP 3 UNITS
PREREQUISITE: None.

LECTURE: 1 hour per week and

LABORATORY: 6 hours per week.

Principles and practices for effective participation in the larger community, to include communication with public officials, bureaucracies, and other social institutions.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

POLIT 222
SPECIAL PROBLEMS IN POLITICAL SCIENCE I 1 UNIT

PREREQUISITE: None.

INDEPENDENT STUDY: 3 hours per week.

Assigned readings, research, projects, intern assignments and conferences for selected students who are interested in furthering their knowledge of political science on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable

Course credit transfers to CSU and UC.

Limited transfer to UC; credit determined after transfer to UC.

POLIT 223
SPECIAL PROBLEMS IN POLITICAL SCIENCE II 2 UNITS

PREREQUISITE: None.

INDEPENDENT STUDY: 6 hours per week.

Assigned readings, research, projects, intern assignments and conferences for selected students who are interested in furthering their knowledge of political science on an independent study basis. Students are required to devote six hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable

Course credit transfers to CSU and UC.

Limited transfer to UC; credit determined after transfer to UC.

PSYCHIATRIC TECHNOLOGY

DIVISION:	Health Science
DIVISION DEAN:	Marilyn Johnson, M.N.
DEPARTMENT HEAD:	Mimi Tumang, M.N. (909) 384-8927
OTHER FACULTY:	Marcia Alfano-Wyatt, M.A. Kristine Kattus, M.S. Marianne Klingstrand, M.A.
DIVISION SECRETARY:	Dorothy N. Fierro
DIVISION OFFICE:	Health and Life Science 101 (909) 384-8550
LIAISON COUNSELOR:	Ailsa Aguilar-Kitibutr, Psy.D. (909) 384-4404

The Psychiatric Technology program is a one-year vocational program accredited by the California Board of Vocational Nurse and Psychiatric Technician Examiners. This curriculum prepares students for licensure as Psychiatric Technicians through academic course work as well as field experience with developmentally and mentally disabled clients in various local facilities.

To apply for admission to the Psychiatric Technology Program, complete an application available in the Division Office of Health Science or the Counseling Center. Completed applications must be filed by February 1st for the Fall semester entry and by September 1st for the Spring semester entry. A booklet explaining details of admission is available in the Health Science Division Office.

A background check is required for admission. California law allows for the denial of Psychiatric Technician Licensure on the basis of any conviction or action substantially related to psychiatric technician practice. The California Board of Vocational Nurse and Psychiatric Technician Examiners requires applicants for licensure with prior convictions to provide proof of rehabilitation that establishes fitness for performing psychiatric technician functions. For further clarification, contact the Board of Vocational Nurse and Psychiatric Technician Examiners.

PREREQUISITES FOR ADMISSION TO THE PSYCHIATRIC TECHNOLOGY PROGRAM:

Complete the following courses with a grade of C or better:

BIOL 050	Anatomy and Physiology	4 units
ENGL 015	Preparation for College Writing	4 units
MATH 952	Prealgebra	4 units
PSYCH 100	Psychology	3 units

PSYCHIATRIC TECHNOLOGY ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Psychiatric Technology, students must complete the following required courses plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

REQUIRED COURSES:	UNITS
PSYTCH 084 Introduction to Psychiatric Technology	17
PSYTCH 085 Psychiatric Technology: Nursing Science	12
PSYTCH 086 Psychiatric Technology: Behavioral Science	17
BIOL 050 Anatomy and Physiology	4
PSYCH 100 General Psychology	3
PSYCH 112 Child and Adolescent Psychology	3

PSYCH 132 Counseling Techniques or PSYCH 118 Human Sexual Behavior	(3)
PSYCH 103 Psychology of the Personality SOC 100 Introduction to Sociology or ANTHRO 102 Cultural Anthropology	(3)
ENGL 101 Freshman Composition	4
TOTAL UNITS:	66

PSYCHIATRIC TECHNOLOGY CERTIFICATE

This certificate is designed to prepare the student for entry-level employment caring for mentally impaired or emotionally disturbed individuals, following physician instructions and hospital procedures to monitor patients' physical and emotional well-being and then report to staff; participate in rehabilitation and treatment programs; help with personal hygiene; and administration of oral medications and hypodermic injections. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
BIOL 050 Anatomy and Physiology	4
ENGL 015 Preparation for College Writing	4
PSYCH 100 Psychology	3
PSYTCH 084 Introduction to Psychiatric Technology	17
PSYTCH 085 Psychiatric Technology: Nursing Science	12
PSYTCH 086 Psychiatric Technology: Behavioral Science	17
TOTAL UNITS:	57

COURSES OFFERED BY THE DEPARTMENT OF PSYCHIATRIC TECHNOLOGY:

PSYTCH 084 INTRODUCTION TO PSYCHIATRIC TECHNOLOGY 17 UNITS

PREREQUISITE: None.

LECTURE: 10 hours per week and

LABORATORY: 21 hours per week.

An introduction to psychiatric technology with a focus on normal growth and development and the causes and types of developmental disabilities. Lectures include current trends, pharmacology, basic nutrition, and preventative measures and intervention. Laboratories include the role of the psychiatric technician, basic nursing principles and administration of prescribed medication of developmentally disabled clients. Students work in clinical settings, caring for developmentally disabled clients of all ages and ethnicities, and with either physical handicaps and/or severe behavior deficits. Students must pass both theory and clinical portions of this class with a 75% or better in each. Failure to do so will necessitate repeating the entire course. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE COMPLETED PROGRAM PREREQUISITES AND HAVE BEEN ACCEPTED INTO THE PSYCHIATRIC TECHNOLOGY PROGRAM.**

Associate Degree Applicable

PSYTCH 085
PSYCHIATRIC TECHNOLOGY: NURSING SCIENCE
12 UNITS

PREREQUISITE: PSYTCH 084.
LECTURE: 7.22 hours per week and
LABORATORY: 12.22 hours per week.

Continuation of basic nursing science concepts and skills with a focus on current interventions for medical and surgical disorders of pediatric, adolescent, adult and geriatric clients. Includes practical applications of theory in caring for physically ill patients of all ages and ethnicities in hospital settings. Students must pass both lecture and clinical portions of this class with a 75% or better in each portion. Failure to do so will necessitate repeating the entire course.

Associate Degree Applicable

PSYTCH 086
PSYCHIATRIC TECHNOLOGY: BEHAVIORAL
SCIENCE
17 UNITS

PREREQUISITE: PSYTCH 084.
LECTURE: 10 hours per week and
LABORATORY: 21 hours per week.

A review of psychiatric disorders according to DSM III-R criteria with emphasis on interventions and psychopharmacological agents. Includes age and cultural implications of mental disorders. Practical application of theory includes caring for and administering medications to clients of all ages and ethnicities in acute, community, and state institution settings. Students must pass both theory and clinical with a 75% in each portion of this class. Failure to do so will necessitate repeating entire course.

Associate Degree Applicable

PSYCHOLOGY

DIVISION: Social Science & Human Development
DIVISION DEAN: Janice Noble, Ph.D.
DEPARTMENT HEAD: Terry Maul, Ph.D.
OTHER FACULTY: Margaret Dodds-Schumacher, Ph.D.
DIVISION SECRETARY: Karen Deck
DIVISION OFFICE: Liberal Arts 122
(909) 384-8603
LIAISON COUNSELOR: Ailsa Aguilar-Kitibutr, Psy.D.
(909) 384-4404

Psychology is both a natural and a social science concerned with the study of human behavior, thoughts, and emotions. As such, it is a broad discipline which involves both pure science and practical application of science to matters of daily living. Students planning to transfer to a four-year institution and major in psychology should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Find and interpret information.

COURSES OFFERED BY THE DEPARTMENT OF PSYCHOLOGY:

PSYCH 052
PRACTICAL PSYCHOLOGY
3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Study of the principles of psychology as applied to everyday living, communication with others and effective behavior.

Associate Degree Applicable

PSYCH 100
GENERAL PSYCHOLOGY
3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Survey of the nature of human behavior and a consideration of theories and principles pertaining to the topics of experimental design, perception, thinking, learning, personality, psychological testing, emotion and motivation. Includes essential features of the biological and neurological bases of behavior.

Associate Degree Applicable

Course credit transfers to CSU and UC.
CAN (California Articulation Number): PSY 2

PSYCH 100H
GENERAL PSYCHOLOGY – HONORS
3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Survey of the nature of human behavior and a consideration of theories and principles pertaining to the topics of experimental design, perception, thinking, learning, personality, psychological testing, emotion and motivation. Includes essential features of the biological and neurological bases of behavior. Enrollment limited to students eligible for the Honors Program.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PSYCH 102
PERSONAL AND SOCIAL ADJUSTMENT
3 UNITS

PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

A look at personal growth and adjustment issues from a variety of theoretical perspectives. This course reviews the characteristics of healthy and unhealthy behavior patterns and discusses management techniques and coping devices by which one can more effectively deal with problems of day-to-day living.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PSYCH 103
PSYCHOLOGY OF PERSONALITY
3 UNITS

PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

Factors contributing to the development of personality and to some of the major ideas found in personality theories; designed to help students become aware of and to better understand their own behavior and the behavior of others.

Associate Degree Applicable

Course credit transfers to CSU and UC.

PSYCH 105
STATISTICS FOR THE BEHAVIORAL SCIENCES 3 UNITS

PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

Statistics as applied to the social sciences including such topics as measurement, frequency distributions, measures of central tendency, measures of variability, the normal distribution curve, correlation, sampling, statistical inference, hypothesis testing and an introduction to analysis of variance.

Associate Degree Applicable
Course credit transfers to CSU.
CAN (California Articulation Number): PSY 6

PSYCH 110
ABNORMAL PSYCHOLOGY 3 UNITS

PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

Survey of the field of mental and emotional disturbances, emphasizing causes and types of disorders. Special attention is paid to the variety of suffering in our culture and the issues raised over classifications of normal and abnormal behavior.

Associate Degree Applicable
Course credit transfers to CSU and UC.

PSYCH 111
DEVELOPMENTAL PSYCHOLOGY: LIFESPAN 3 UNITS

PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

Introduction to the study of lifespan developmental psychology from conception through aging. The focus is on six issues: (1) the nature of change, (2) continuity and discontinuity in development, (3) the influence of genes and social context on growth, (4) the influence of culture, race, and ethnicity on development, (5) the effect of present experience on future outcomes, and (6) current theory and research which contribute to an understanding of human development over the lifespan.

Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PSYCH 112
DEVELOPMENTAL PSYCHOLOGY: CHILD AND ADOLESCENT PSYCHOLOGY 3 UNITS

PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

Survey of psychological growth of the normal individual from conception through adolescence with emphasis on stages of development.

Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

PSYCH 118
HUMAN SEXUAL BEHAVIOR 3 UNITS

PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

Study of selected factors in human sexual behavior. Emphasis on psychology of sex and an analysis of assumptions and attitudes toward human sexuality.

Associate Degree Applicable
Course credit transfers to CSU and UC.

PSYCH 132
COUNSELING TECHNIQUES 3 UNITS
PREREQUISITE: PSYCH 100.
LECTURE: 3 hours per week.

A general study of interviewing and counseling techniques and theory.

Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

PSYCH 222
SPECIAL PROBLEMS IN PSYCHOLOGY I 1 UNIT
PREREQUISITE: PSYCH 100.
INDEPENDENT STUDY: 3 hours per week.

Assigned problems involving library and laboratory work for selected students who are interested in furthering their knowledge of psychology on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable
Course credit transfers to CSU and UC.
Limited transfer to UC; credit determined after transfer to UC.

PSYCH 223
SPECIAL PROBLEMS IN PSYCHOLOGY II 2 UNITS
PREREQUISITE: PSYCH 100.
INDEPENDENT STUDY: 6 hours per week.

Assigned problems involving library and laboratory work for selected students who are interested in furthering their knowledge of psychology on an independent study basis. Students are required to devote six hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable
Course credit transfers to CSU and UC.
Limited transfer to UC; credit determined after transfer to UC.

RADIO / TELEVISION / FILM

DIVISION: Humanities
DIVISION DEAN: Marjorie Price, M.A., M.Ed.
DEPARTMENT HEAD: Leticia Hector, M.A.
Liberal Arts 239
(909) 384-8618
OTHER FACULTY: Diane Dusick, Ph.D.
DIVISION SECRETARIES: Kelly Adcock
(909) 384-8906
Cheryl Benner
(909) 384-8633
DIVISION OFFICE: North Hall 236
(909) 384-4445
LIAISON COUNSELOR: Mary Beth Barrios, M.S.
(909) 384-4404

The Radio/Television/Film department offers a comprehensive instructional program in radio and television broadcasting, digital film production, and digital audio and video production for use in multimedia and Internet applications. The department provides a two-year curriculum for students majoring in the field resulting in the Associate of Arts Degree and/or transfer to a four-year institution and provides elective courses for students interested in related fields such as marketing, journalism, theater arts, multimedia, web page design, and data communications. The instructional program includes internships at local stations and businesses, on-air experience using the facilities of the student radio station KJRP and public television station KVCR-TV, which is licensed to the San Bernardino Community College District.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.
- Find and interpret information.
- Utilize technology to organize and present information.
- Demonstrate working knowledge of basic computer function.
- Apply learned knowledge to new situations.
- Demonstrate creative thought through original expression.

**RADIO/TELEVISION/FILM
ASSOCIATE OF ARTS DEGREE OR CERTIFICATES**

To graduate with an Associate of Arts degree with a specialization in Radio, Television, Film production, or the general RTVF concentration, students must: 1) complete the following core courses, 2) complete either the Radio, Television, Film, or general RTVF concentration, and 3) complete the general breadth requirements for the Associate Degree for a total of 60 units.

To complete a certificate, students must: 1) complete the following core courses, and 2) complete either the Radio, Television, Film, or the general RTVF concentration for a total of 21 units.

REQUIRED for all concentrations:	UNITS
RTVF 100 Introduction to Radio, Television, and Film 3	
or	
SPEECH 135 Mass Media and Society	(3)

Complete courses listed for one of the below concentrations:

RTVF Concentration:

RTVF 121	Introduction to Digital Audio	3
RTVF 131	Introduction to Digital Video	3
RTVF 130	Introduction to Studio Production	3
RTVF 240	Fundamentals of Film Production I	3

Television Concentration:

RTVF 131	Introduction to Digital Video	3
RTVF 130	Introduction to Studio Production	3
RTVF 230	Intermediate Studio Production	3
RTVF 231	Advanced Video Production	3

Radio Concentration:

RTVF 120	Introduction to Radio Production	3
RTVF 121	Introduction to Digital Audio	3
RTVF 220	Intermediate Radio Production and Operations	3
RTVF 221	Radio Station Management	3

Film Concentration:

RTVF 131	Introduction to Digital Video Production	3
RTVF 240	Fundamentals of Film Production I	3
RTVF 241	Fundamentals of Film Production II	3
RTVF 242	Fundamentals of Film Production III	3

Plus six units selected from other RTVF offerings: 6

DIGITAL FILM PRODUCTION CERTIFICATE

This certificate is designed to prepare students with the necessary knowledge and skills to obtain entry-level employment in the fields of film and television, working with digital video cameras, sound recording equipment, digital video and audio editing, location lighting techniques, sound effects, and more. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
RTVF 100 Introduction to Radio, Television, and Film	3
or	
SPEECH 135 Mass Media and Society	(3)
RTVF 131 Introduction to Digital Video Production	3
RTVF 240 Fundamentals of Film Production I	3
RTVF 241 Fundamentals of Film Production II	3
RTVF 242 Fundamentals of Film Production III	3

Plus six units selected from the following:	6
ART 110 History of American Cinema	(3)
ART 111 Studies in Film Appreciation	(3)
ENGL 153 Literature and Film	(3)
Any additional RTVF offerings	(3)
TOTAL UNITS:	21

COURSES OFFERED WITHIN THE DEPARTMENT OF RADIO, TELEVISION AND FILM:

**RTVF 100
INTRODUCTION TO RADIO, TELEVISION, AND FILM
3 UNITS**

PREREQUISITE: None.

LECTURE: 3 hours per week.

This course presents an overview of the history, structure, and function of the radio, TV, and film industry. It covers the development and nature of radio, television, cable, film, and Internet communications including current social, legal, political, economic and cultural implications of the media; advertising and audience measurement strategies; programming; and employment opportunities.

*Associate Degree Applicable
Course credit transfers to CSU*

**RTVF 104
BASIC WRITING FOR BROADCASTING
3 UNITS**

PREREQUISITE: ENGL 914.

DEPARTMENTAL ADVISORY: The ability to type.

LECTURE: 3 hours per week.

Fundamentals of gathering and preparing copy for radio, and preparation of broadcast scripts. Explores responsibilities of broadcast news, history, and broadcast regulations including the Fairness Doctrine. Addresses problems of timing and pacing, conversational expression and word color. Students will write copy for campus radio station KJRP.

*Associate Degree Applicable
Course credit transfers to CSU.*

RTVF 105
RADIO AND TELEVISION ADVERTISING **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.
Examines the character and composition of radio and television advertising; writing and producing commercials for radio and television; advertising campaigns; the relationship between advertising agencies, stations and networks; audience and consumer ratings; and research techniques.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 106
WRITING FOR TELEVISION AND FILM **3 UNITS**
PREREQUISITE: ENGL 914
LECTURE: 3 hours per week.
A course designed to introduce students to the various formats of scripting for television and film including television news, episodic comedy, long-form drama and theatrical films.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 107
INTRODUCTION TO COMMUNICATIONS TECHNOLOGY **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.
An introduction to the types of current communications technologies, how they are used, and how they interact with and affect one another. Includes telecommunications (phones and phone lines, ISDN, T-1) computers, satellites, television, cable and radio.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 120
INTRODUCTION TO RADIO PRODUCTION **3 UNITS**
PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.
This course is an introduction to the principles of radio and audio aesthetics and production. It provides laboratory practice in conceiving, scripting, developing, and producing a variety of radio programs using a range of field and studio equipment including emerging digital technology.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 121
INTRODUCTION TO DIGITAL AUDIO **3 UNITS**
PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.
This course introduces students to the theory and practice of audio production as it pertains to radio, television, and film. This course covers live broadcasting, recording, and postproduction editing, emphasizes aesthetics and techniques to ensure high quality sound using primarily digital equipment. Students learn effective digital file management, basic computer technology, and digital sound editing.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 130
INTRODUCTION TO STUDIO PRODUCTION **3 UNITS**
PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.
This introductory course covers the organization of the television studio, control room, production language, and studio personnel. Includes sound recording and mixing concepts, shooting composition and aesthetics principles. Students produce and direct television productions. Topics include: camera operation, studio lighting techniques, the use of microphones and audio techniques, basic television graphics, and an introduction to the video switcher.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 131
INTRODUCTION TO DIGITAL VIDEO **3 UNITS**
PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.
This course is an introductory study of digital television technology and its uses in the marketplace. This course identifies the differences between digital and analog video, explores digital video interfaces, digital video platforms, the digital VTR, non-linear video editing, and the digital video studio. The focus is on all forms of digital video, but students receive hands-on training with digital video recording and editing equipment.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 198
COMMUNICATIONS/BROADCASTING WORK EXPERIENCE **1-4 UNITS**
PREREQUISITE: None.
Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

RTVF 220
INTERMEDIATE RADIO PRODUCTION AND OPERATIONS **3 UNITS**
PREREQUISITE: RTVF 120 and RTVF 121.
LABORATORY: 9 hours per week.
Individual and group production of short- and long-form radio projects such as: Promotional spots, features, magazines, music programming, and news. Project conception, development, management, and implementation, including remote broadcasting. Contact with radio professionals. Student projects air on student radio-station KJRP.
Associate Degree Applicable
Course credit transfers to CSU.

RTVF 221
RADIO STATION MANAGEMENT 3 UNITS
PREREQUISITES: RTVF 120 and RTVF 121.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.

This course deals with radio station management functions, models, and operations. Students will program and manage student radio station KJRP, and produce remote broadcasts. Students gain experience in station management by serving as the program director, music director, production supervisor, and on-air announcers. Students will develop an understanding of the operation of radio stations, of audience rating methods, and their impact on programming design.

Associate Degree Applicable
Course credit transfers to CSU.

RTVF 222
INDEPENDENT STUDY IN RADIO/TELEVISION/FILM 1-3 UNITS

PREREQUISITE: None.
INDEPENDENT STUDY: 3-9 hours per week.

Assigned projects involving research, laboratory work, or directed study for selected students who are interested in furthering their knowledge of radio, television, or film production on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable
Course credit transfers to CSU.

RTVF 230
INTERMEDIATE STUDIO PRODUCTION 3 UNITS
PREREQUISITE: RTVF 130.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.

The second level course in the techniques of planning, producing, writing, and directing television programs with an emphasis on polishing technical skills, creativity, and teamwork. Explores advanced video switching techniques, the use and interpretation of the waveform monitor and vectorscope, video recording and editing formats, program rundowns, timing, and advanced director's cues. Students produce interview shows, music videos, and a half hour segmented program, including writing a rundown, front- and back-timing a show, and directing a live program.

Associate Degree Applicable
Course credit transfers to CSU.

RTVF 231
ADVANCED VIDEO PRODUCTION 3 UNITS
PREREQUISITE: RTVF 131.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.

In this second-level course students plan, produce, write, shoot, and edit television programs using both studio production and single video camera and editing equipment. The course includes hands on experience using remote video cameras, and linear and nonlinear editing equipment. Students will create their own video production, and assist other students in creating their projects. Students are not required to have their own camera.

Associate Degree Applicable
Course credit transfers to CSU.

RTVF 240
FUNDAMENTALS OF FILM PRODUCTION I 3 UNITS
PREREQUISITE: RTVF 131.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.

This course is an introductory study of the aesthetic and technical aspects of digital film production. This course emphasizes a critical awareness of the aesthetics of narrative film techniques as applied in the construction of the students' productions. In this course, students produce their own narrative films and assist other students in other aspects of narrative film production including camera operation, set design, lighting, casting, and acting as a grip. Students should have a basic knowledge of digital video cameras and non-linear editing prior to taking this course.

Associate Degree Applicable
Course credit transfers to CSU.

RTVF 241
FUNDAMENTALS OF FILM PRODUCTION II 3 UNITS
PREREQUISITE: RTVF 240.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.

This course is an intermediate study of the technical aspects of digital film production. This course explores scripts, shot lists, treatments, sound and directing as applied in the construction of the students' productions. In this course, students produce their own narrative films and assist other students in other aspects of narrative film production including camera operation, set design, lighting, casting and working as a grip.

Associate Degree Applicable
Course credit transfers to CSU.

RTVF 242
FUNDAMENTALS OF FILM PRODUCTION III 3 UNITS
PREREQUISITE: RTVF 241.
LECTURE: 1 hour per week and
LABORATORY: 6 hours per week.

This course is an advanced study of the technical aspects of digital film production. This course explores film scheduling, production, advanced editing techniques, budgeting, and distribution as applied in the construction of the students' productions. In this course, students produce their own narrative films and assist other students in other aspects of narrative film production including camera operation, set design, lighting, casting, and working as a grip.

Associate Degree Applicable
Course credit transfers to CSU.

RAILROAD OPERATIONS

DIVISION: Applied Technology & Transportation
DIVISION DEAN: Thomas Bauman, M.S., P.E.
DIRECTOR: Kevin Anderson, M.B.A.
DEPARTMENT SECRETARY: Amanda Moody
(909) 382-4079
DEPARTMENT OFFICE: 264 S. Leland Norton Way
Suite A120, San Bernardino
LIAISON COUNSELOR: Jennifer Mendoza, M.S.
(909) 384-4404

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Exhibit personal, professional and academic honesty.

**GENERAL RAILWAY OPERATIONS
CERTIFICATE**

This certificate is designed to provide students with the fundamentals for entry-level employment in the rail transportation industry. Students receive a background in railroad history, development, and industry safety. They are prepared for such tasks as yard labor, train operations, maintenance of equipment, track and structures, and installation of signaling and control systems. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
RAIL 050 Railroad History	3
RAIL 051 Railroad Technical Careers	3
RAIL 052 Railroad Operations	3
RAIL 053 Railroad Safety, Quality & Environment	3
TOTAL UNITS:	12

Recommended High School Preparation: Courses in English, mathematics, physics, electronics, mechanics and computers are recommended.

**COURSES OFFERED WITHIN THE DEPARTMENT OF
RAILROAD OPERATIONS:**

**RAIL 050
RAILROAD HISTORY** **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.

The primary objective of Railroad History is to provide an opportunity for the student to obtain information about the development and evolution of the railroad industry in North America. The course study will focus on the geographical expansion, technical advancements, sociological influences, government involvement, and economic impacts of the railroads and related businesses in the United States, Canada, and Mexico.
Associate Degree Applicable

**RAIL 051
RAILROAD TECHNICAL CAREER** **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.

The primary objective of Railroad Careers is to examine the various technical positions and work groups responsible for the day-to-day operations of a railroad. Students will have an opportunity to learn about the typical organizational structure of a railroad, the inter and intra-departmental relationships, and the purposes, responsibilities, accountabilities, tasks, challenges, conditions, requisite skills, physical requirements, tools and challenges of several specific positions. The course of study will focus on railroad jobs involved with train operations, maintenance of equipment (locomotives and cars), track and structures, and installation of signaling and control systems.

Associate Degree Applicable

**RAIL 052
RAILROAD OPERATIONS** **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.

This course examines the railroad industry's assets, organizational structure, and typical operations. Emphasis is placed on the current characteristics of North American railroads, basic operating processes in the transportation, mechanical and engineering functional areas, and administrative processes in the non-operating areas.

Associate Degree Applicable

**RAIL 053
RAILROAD SAFETY, QUALITY AND ENVIRONMENT** **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours.

This course covers the importance of safety, quality, and environmental awareness to the railroad industry and emphasizes the tools and techniques for improving these conditions on the job.

Associate Degree Applicable

Sequence of Reading Courses at SBVC

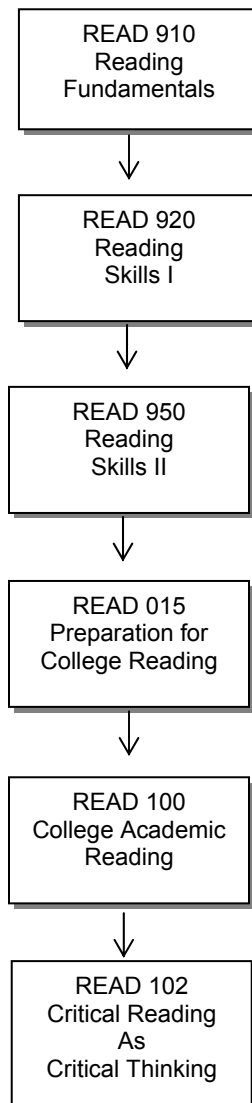
In order to graduate with an associate degree, you must complete READ 015 with a grade of C or better or assess into READ 100

Or

Complete all courses required to satisfy minimum graduation requirements in Categories I, II, or III with an overall grade point average of 2.0 or higher.

You may follow this sequence of courses to develop proficiency in reading or you may be eligible to begin this sequence with READ 950 or higher depending on results of the SBVC assessment process.

(Contact a counselor for details and the Admissions Office for assessment dates.)



READING AND STUDY SKILLS

DIVISION:	Humanities
DIVISION DEAN:	Marjorie Price, M.A., M.Ed.
DEPARTMENT HEAD:	Helen M. Garcia, Ph.D. Liberal Arts 215 (909) 384-8627
OTHER FACULTY:	Carolyn Allen-Roper, M.A. Magdalena Jacobo, M.A.
DIVISION SECRETARIES:	Kelly Adcock (909) 384-8906 Cheryl Benner (909) 384-8633
DIVISION OFFICE:	North Hall 236 (909) 384-4445
LIAISON COUNSELOR:	Juan Zepeda, M.S. (909) 384-4404

The Reading and Study Skills Department offers courses in reading improvement and study skills designed to help students succeed in college. Entering students can use their assessment scores to select the appropriate reading class. Courses in the Basic Reading Skills series (READ 910, 920, 950, 015) prepare students for college-level reading with an intensive program of instruction and laboratory practice. These courses also prepare students to satisfy one of the two options for fulfilling the reading competency requirement for the Associate Degree. READ 100 and 102 teach college-level reading and study skills.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Find and interpret information.

COURSES OFFERED BY THE DEPARTMENT OF READING AND STUDY SKILLS:

READ 910
READING FUNDAMENTALS **4 UNITS**
PREREQUISITE: None.

LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

A reading fundamentals course which provides an individualized beginning reading program, including reading readiness, phonics, word perception, dictionary usage, syllabication, context clues, spelling, verbal and written expressions, and beginning comprehension skills.
Not applicable to Associate Degree

READ 920
READING SKILLS I **4 UNITS**
PREREQUISITE: None.

LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

A comprehensive, diagnostic-prescriptive program for students requiring basic reading skills, including instruction in phonics, vocabulary development, and literal and inferential comprehension skills.
Not applicable to Associate Degree

READ 950
READING SKILLS II **4 UNITS**
PREREQUISITE: READ 920 or eligibility for READ 950 as determined through the SBVC assessment process.

LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

Designed to assist students in improving reading through an emphasis on word attack skills, vocabulary development, general comprehension skills, and study skills.

Not applicable to Associate Degree

READ 015
PREPARATION FOR COLLEGE READING **4 UNITS**

PREREQUISITE: READ 950 or eligibility for READ 015 as determined through the SBVC assessment process.

LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

Designed to foster general reading improvement with an emphasis on reading comprehension and vocabulary. Required laboratory practice assignments are based on diagnostic tests, which identify strengths and weaknesses.

Associate Degree Applicable

READ 100
COLLEGE ACADEMIC READING **3 UNITS**
PREREQUISITE: READ 015 or eligibility for READ 100 as determined through the SBVC assessment process.

LECTURE: 3 hours per week.

Designed to help students improve analytical reading and critical thinking required for reading college textbooks as well as works of literature, including advanced, college-level vocabulary, comprehension improvement, the relationship of language to thinking, drawing sound inferences, distinguishing between fact and opinion, understanding bias and propaganda, and evaluation of evidence in addition to literal comprehension skills.

Associate Degree Applicable
Course credit transfers to CSU.

READ 102
CRITICAL READING AS CRITICAL THINKING **3 UNITS**

PREREQUISITE: READ 100 or ENGL 101.

LECTURE: 3 hours per week.

This course explores the relationship of critical reading and critical thinking, including emphasis on the development of critical thinking skills with application in the interpretation, analysis, criticism, and advocacy of ideas encountered in academic reading.

Associate Degree Applicable
Course credit transfers to CSU.

REAL ESTATE/ESCROW

DIVISION: Business & Information Technology
 DIVISION DEAN: Margaret Ortiz, M.A.
 DEPARTMENT HEAD: Nickolas Zombos, M.S.
 Business 100D
 (909) 384-8912
 OTHER FACULTY: Michael Durrett, M.B.A.
 DIVISION SECRETARY: Chris Williams
 DIVISION OFFICE: Business 101
 (909) 384-8908
 LIAISON COUNSELOR: Rafael Herrera, M.S.
 (909) 384-4404

There are a variety of reasons why people study real estate. Some wish to become real estate agents, and some people student real estate to be better-informed consumers as they work with agents to buy or sell a personal residence. Still others study real estate as a way to acquire long-term investments that could generate rental income for their retirement years. Whatever the reason, this curriculum provides a strong basis for understanding the real estate market.

The Real Estate curriculum is designed to provide students with the course requirements for pre-qualification for the real estate sales or brokers examinations.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.

REAL ESTATE/ESCROW ASSOCIATE OF ARTS DEGREE

To graduate with a specialization in Real Estate or Escrow, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units).

REQUIRED COURSES:	UNITS
ESCROW 101 Escrow Procedures I	3
REALST 100 Real Estate Principles	3
REALST 210 Real Estate Finance	3
REALST 215 Legal Aspects of Real Estate	3
REALST 230 Real Estate Economics	3
or	
ECON 100 Introduction to Economics	(3)
Six units from one of the following areas of concentration	6
TOTAL UNITS:	21

1. REAL ESTATE CONCENTRATION

REALST 200 Real Estate Practice	3
REALST 205 Real Estate Appraisal: Residential	3

2. ESCROW CONCENTRATION

ESCROW 102 Escrow Procedures II	3
ESCROW 103 Escrow Procedures III	3

RECOMMENDED COURSES FOR BOTH CONCENTRATIONS:

ACCT 200 Principles of Accounting I	4
BUSAD 100 Introduction to Business	3
BUSAD 210 Business Law	3
BUSAD 106 Principles of Selling	3
BUSCAL 050 Quantitative Methods in Business	3
CIT 010 Beginning Keyboarding	3

REAL ESTATE/ESCROW CERTIFICATES

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

1. ESCROW CERTIFICATE

This certificate qualifies students for entry-level employment in title and escrow companies, mortgage companies, savings and loans, and related firms.

This certificate qualifies students for entry-level employment in title and escrow companies, mortgage companies, savings and loans, and related firms. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
ESCROW 101 Escrow Procedures I	3
ESCROW 102 Escrow Procedures II	3
ESCROW 103 Escrow Procedures III	3
REALST 100 Real Estate Principles	3
REALST 210 Real Estate Finance	3
REALST 215 Legal Aspects of Real Estate	3
Six units from the list of RECOMMENDED COURSES	6
TOTAL UNITS:	24

RECOMMENDED COURSES:	UNITS
ACCT 100 Introduction to Accounting I	4
or	
ACCT 200 Principles of Accounting I	(4)
BUSAD 100 Introduction to Business	3
BUSAD 110 Human Resource Management	3
BUSAD 210 Business Law	3
BUSCAL 050 Quantitative Methods in Business	3
CIT 010 Beginning Keyboarding	3
CIT 031 Business English	3
REALST 200 Real Estate Practice	3
REALST 205 Real Estate Appraisal: Residential	3

2. REAL ESTATE CERTIFICATE

This certificate qualifies students for entry-level employment in title and escrow companies, mortgage companies, savings and loans, and related firms. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
REALST 100 Real Estate Principles	3
REALST 200 Real Estate Practice	3
REALST 205 Real Estate Appraisal: Residential	3
REALST 210 Real Estate Finance	3
REALST 215 Legal Aspects of Real Estate	3
REALST 230 Real Estate Economics	3
or	
ACCT 100 Introduction to Accounting I	(4)
Six units from the list of RECOMMENDED COURSES	6
TOTAL UNITS:	24-25

RECOMMENDED COURSES:	UNITS
ACCT 100 Introduction to Accounting I or	4
ACCT 200 Principles of Accounting I	(4)
BUSAD 100 Introduction to Business	3
BUSAD 103 Marketing Principles	3
BUSAD 210 Business Law	3
BUSCAL 050 Quantitative Methods in Business	3
ECON 100 Introduction to Economics	3
ESCROW 101 Escrow Procedures I	3
REALST 220 Property Management	3

COURSES OFFERED BY THE DEPARTMENT OF REAL ESTATE/ESCROW:

REALST 100 REAL ESTATE PRINCIPLES 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

Fundamentals of real estate covering basic laws and principles of California real estate. Includes the background and terminology necessary for advanced study of real estate. Mandatory prerequisite for the real estate sales license examination.

Associate Degree Applicable

Course credit transfers to CSU.

REALST 101 REAL ESTATE LOAN PROCESSING FUNDAMENTALS 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: REALST 100.

LECTURE: 3 hours per week.

This course covers the fundamentals of processing real estate mortgage loans. Course content includes the basics of processing a conforming mortgage loan, from the application submission to the funding and closing of the mortgage loan. It is designed for entry-level employment into the real estate field.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

REALST 102 GOVERNMENTAL AND NON-CONFORMING LOAN PROCESSING 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORIES: REALST 100 and REALST 101.

LECTURE: 3 hours per week.

This course provides in-depth training in the processing of nonconforming, FHA, and VA real estate mortgages. The student will learn the basics of processing sub-prime loans, jumbo loans, second mortgage, FHA, and VA mortgages. The full documentation, limited documentation, and stated income loan files will be covered.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

REALST 103 COMPUTERIZED REAL ESTATE LOAN PROCESSING 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORIES: REALST 100 and REALST 101.

LECTURE: 2 hours per week and

LABORATORY: 2 hours per week.

An introduction to computerized loan processing software in the field of real estate loans. This course is designed for mortgage originators, processors, and other mortgage professionals. Topics include working with loan files, amortization schedules, loan application processing, compliance, preparing good faith estimates, government forms, and processing various types of loan packages.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

REALST 200 REAL ESTATE PRACTICE 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: REALST 100.

LECTURE: 3 hours per week.

Day-to-day operations in real estate; overview of brokerage procedures and the various roles of the employee. Mandatory prerequisite to real estate broker's examination.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

REALST 205 REAL ESTATE APPRAISAL: RESIDENTIAL 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: REALST 100.

LECTURE: 3 hours per week.

Purposes of appraisals, appraisal process and the different methods, approaches and techniques used to determine the value of various types of property. Mandatory prerequisite to real estate broker's examination.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

REALST 210 REAL ESTATE FINANCE 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: REALST 100.

LECTURE: 3 hours per week.

Analysis of real estate financing including lending policies and problems in financing transactions in residential, apartment, commercial and special purpose properties, emphasizing methods of financing properties. Mandatory prerequisite to real estate broker's examination.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

REALST 211 ADVANCED REAL ESTATE FINANCING 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORIES: REALST 100 and REALST 210.

LECTURE: 3 hours per week.

An in-depth study of real property financing, risk analysis, negotiations, land development, construction financing, feasibility, analytical financing tools and other topics necessary to develop skills needed for real estate decision-making. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

Course credit transfers to CSU for elective credit only.

REALST 215
LEGAL ASPECTS OF REAL ESTATE 3 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: REALST 100.
LECTURE: 3 hours per week.
 Study of California real estate law with emphasis on applications in real estate brokerage and related fields. Mandatory prerequisite to real estate broker's examination.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

REALST 220
PROPERTY MANAGEMENT 3 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: REALST 100.
LECTURE: 3 hours per week.
 Professional approach to the principles and practices of managing income properties, leasing, collections, rent schedules, budgets, purchasing, market economics, evictions, maintenance, taxation and record keeping.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

REALST 230
REAL ESTATE ECONOMICS 3 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORIES: REALST 100 and REALST 200.
LECTURE: 3 hours per week.
 Intensive study of factors which influence changes in real estate values.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

REALST 901
REAL ESTATE PRE-LICENSE 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 Preparation for the Real Estate Sales License examinations given weekly by the California Department of Real Estate. California real estate law, listing and deposit receipts, appraising, financing and taxation and mathematics of real estate.
Not Applicable to the Associate Degree

REALST 902
BROKER'S LICENSE REVIEW 3 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: Sales License or equivalent.
LECTURE: 3 hours per week.
 A review for students who qualify to take the California Real Estate Broker's examination. Includes legal procedure, law, contracts, appraising, financing, taxation, business practices, syndication subdivision, liens and practice test questions.
Not Applicable to the Associate Degree

ESCROW 101
ESCROW PROCEDURES I 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 Methods and techniques of escrow procedures for various types of business transactions with emphasis on the legal and ethical responsibilities of professionals engaged in escrow and real estate work.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

ESCROW 102
ESCROW PROCEDURES II 3 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: ESCROW 101.
LECTURE: 3 hours per week.
 Advanced study of the more unusual and difficult types of escrows with evaluations of possible solutions designed to increase the knowledge and efficiency of escrow personnel.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

ESCROW 103
ESCROW PROCEDURES III 3 UNITS
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: ESCROW 102.
LECTURE: 3 hours per week.
 Case studies of unusual and difficult types of escrows with emphasis on escrows in which conflicts or disputes arise.
 Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

REFRIGERATION AND AIR CONDITIONING

DIVISION: Applied Technology & Transportation
 DIVISION DEAN: Thomas Bauman, M.S., P.E.
 DEPARTMENT HEAD: Edward Szumski, M.A.
 Technical 108
 (909) 384-8501
 OTHER FACULTY: Carlos Busselle, B.A.
 Ralph Dennington, B.S.
 DIVISION SECRETARY: Patsy Martinez
 (909) 384-8902
 DIVISION OFFICE: Technical 108
 (909) 384-4451
 LIAISON COUNSELOR: Wendy Whitney, M.S.
 (909) 384-4404

The Refrigeration and Air Conditioning Department prepares students for employment in the field of refrigeration and air conditioning. Employment of air conditioning and refrigeration technicians is expected to increase rapidly during the next decade. While air conditioning in offices, stores, hospitals, schools and other non-residential building has become commonplace, anticipated increases in rising personal incomes point to continued rapid growth in home air conditioning. Refrigeration is also necessary for the production, storage, and marketing of food and other perishables.

Students interested in preparing for employment in this field may begin their studies any semester. The course of study designed by SBVC's Department of Refrigeration and Air Conditioning may lead to an Associate of Science degree or a vocational certificate in Refrigeration and Air Conditioning.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Find and interpret information.
- Demonstrate etiquette in face-to-face and written interactions.

**REFRIGERATION AND AIR CONDITIONING
ASSOCIATE OF SCIENCE DEGREE**

To graduate with a specialization in Refrigeration and Air Conditioning, students must complete all requirements for the certificate with a grade of C or better plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

**REFRIGERATION AND AIR CONDITIONING
CERTIFICATE**

This certificate is designed to prepare students with the necessary knowledge and skills to obtain entry-level employment in the field of refrigeration and air conditioning, installing, maintaining, and repairing such systems. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
TECALC 087 Technical Calculations	4
REFRIG 101x3 Refrigeration I	4
REFRIG 102x3 Refrigeration II	4
REFRIG 103x3 Refrigeration III	4
REFRIG 104x3 Refrigeration Electricity I	4
REFRIG 105x3 Refrigeration Electricity II	4
REFRIG 106x3 Air Conditioning & Heating	4
WELD 123 Oxy-Acetylene Welding	3
EPA Universal Certification (608)	
TOTAL UNITS:	31

RECOMMENDED COURSES: **UNITS**
Students are encouraged to take this course as part of their General Education program:

AUTO 056 Auto Heating & Air Conditioning 4

**COURSES OFFERED BY THE DEPARTMENT OF
REFRIGERATION AND AIR CONDITIONING:**

Course descriptions for REFRIG 050A-Z through REFRIG 068A-Z follow the description for REFRIG 198.

**REFRIG 101x3
REFRIGERATION I 4 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

A study of the basic principles of refrigeration, refrigerants, refrigeration components and tools. Repair and testing of refrigeration units. Basic brazing and soldering. This course may be taken three times.

*Associate Degree Applicable
 Course credit transfers to CSU.*

**REFRIG 102x3
REFRIGERATION II 4 UNITS**
PREREQUISITE: REFRIG 101x3.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

Principles of refrigeration compression systems, operations and controls, refrigeration and freezer construction, piping and parts layout. Included in the lab work are trouble shooting and servicing domestic refrigeration units. This course may be taken three times.

*Associate Degree Applicable
 Course credit transfers to CSU.*

**REFRIG 103x3
REFRIGERATION III 4 UNITS**
PREREQUISITE: REFRIG 101x3.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

Theory of compressor construction and operation. Principle of all types of refrigerant controls and multi-stage control devices pertaining to commercial and industrial refrigeration. Includes practical lab work. This course may be taken three times.

*Associate Degree Applicable
 Course credit transfers to CSU.*

**REFRIG 104x3
REFRIGERATION ELECTRICITY I 4 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

Fundamentals of direct and alternating current circuits, test equipment, electric motors of all types, wiring and control devices used in modern refrigeration equipment. Includes practical lab work with electrical refrigeration trainers and projects. This course may be taken three times.

*Associate Degree Applicable
 Course credit transfers to CSU.*

**REFRIG 105x3
REFRIGERATION ELECTRICITY II 4 UNITS**
PREREQUISITE: REFRIG 104x3.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

A study of solid state control systems, emphasizing schematic reading and electrical trouble shooting pertaining to refrigeration equipment. Includes practical lab work with electrical refrigeration trainers and projects. This course may be taken three times.

*Associate Degree Applicable
 Course credit transfers to CSU.*

**REFRIG 106x3
AIR CONDITIONING AND HEATING 4 UNITS**
PREREQUISITE: REFRIG 101x3.
LECTURE: 3 hours per week and
LABORATORY: 3 hours per week.

Theory of multiple-stage systems and multiple-control devices; emphasis on condensing and evaporation equipment, heavy duty piping layout, forced-air heating, ventilation and air conditioning. Includes lab work with refrigeration trainers and projects. This course may be taken three times.

*Associate Degree Applicable
 Course credit transfers to CSU.*

**REFRIG 198
REFRIGERATION AND AIR CONDITIONING WORK
EXPERIENCE 1-4 UNITS**
PREREQUISITE: None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable
 Course credit transfers to CSU for elective credit only.*

REFRIG 050A-Z through REFRIG 068A-Z are based on course material supplied by the Refrigeration Engineering Society and are designed for upgrading journeymen.

REFRIG 050A
REFRIGERATION AND AIR CONDITIONING I 3 UNITS
PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the first term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of the principles of refrigeration. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

REFRIG 051A
REFRIGERATION AND AIR CONDITIONING II 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the second term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of compressors, condensers and accessories. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

REFRIG 052A
REFRIGERATION AND AIR CONDITIONING III 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the third term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of air conditioning. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

REFRIG 055A
REFRIGERATION HEATING I 3 UNITS
PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the first term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of heating systems. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

REFRIG 056A
REFRIGERATION HEATING II 3 UNITS
PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the second of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of heating sources and distribution. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

REFRIG 057A
REFRIGERATION HEATING III 3 UNITS
PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the third term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of heating controls and filtering and cleaning equipment. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

Associate Degree Applicable

REFRIG 060A
REFRIGERATION AND A/C ELECTRICITY I 3 UNITS
PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the first term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of fundamental electricity. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current.

Associate Degree Applicable

REFRIG 061A
REFRIGERATION AND A/C ELECTRICITY II 3 UNITS

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience

LECTURE: 3 hours per week.

This is the second term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of alternating current and applications. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current.

Associate Degree Applicable

REFRIG 062A
REFRIGERATION AND A/C ELECTRICITY III **3 UNITS**

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience
LECTURE: 3 hours per week.

This is the third term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of solid state and electrical control circuits. This course is designed to help certify journeymen- level refrigeration technicians and keep their knowledge current.
Associate Degree Applicable

REFRIG 065A
HEAT-PUMP THEORY **3 UNITS**

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience.
LECTURE: 3 hours per week.

This is a single term of a national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of refrigeration heat-pump theory. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current.
Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable

REFRIG 066A
CONTROLS I **3 UNITS**

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience.
LECTURE: 3 hours per week.

This is the first term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of refrigeration pneumatic controls. This course is designed to help certify journeymen-level refrigeration technicians and keep their knowledge current.
Associate Degree Applicable

REFRIG 067A
CONTROLS II **3 UNITS**

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience.
LECTURE: 3 hours per week.

This is the second term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of refrigeration electric controls. This course is designed to help certify journeymen- level refrigeration technicians and keep their knowledge current.
Associate Degree Applicable

REFRIG 068A
CONTROLS III **3 UNITS**

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: HVAC Refrigeration
Work Experience.
LECTURE: 3 hours per week.

This is the third term of a three-term national training course offered by the Refrigeration Service Engineers Society and is a comprehensive study of refrigeration electronic controls. This course is designed to help certify journeymen- level refrigeration technicians and keep their knowledge current.
Associate Degree Applicable

RELIGIOUS STUDIES

See the Department of PHILOSOPHY/
 RELIGIOUS STUDIES

**RESTAURANT MANAGEMENT/
 FOOD SERVICE**

DIVISION: Business & Information Technology
 DIVISION DEAN: Margaret Ortiz, M.A.
 DEPARTMENT HEAD: To Be Announced
 Campus Center 169/170
 (909) 384-8695
 OTHER FACULTY: Michael Durrett, M.B.A.
 DIVISION SECRETARY: Chris Williams
 DIVISION OFFICE: Business 101
 (909) 384-8908
 LIAISON COUNSELOR: André Wooten, M.A.
 (909) 384-4404

The Restaurant Management/Food Service curriculum prepares students for careers in restaurant management, food services, and other hospitality career fields. Hospitality is the second largest employing industry in the state of California and the United States.

Successful completion of one of the vocational certificates qualifies students for certification and membership in the American School Food Service Association. Students completing the associate degree are prepared to transfer to a baccalaureate program at a four-year institution.

**RESTAURANT MANAGEMENT
 ASSOCIATE OF ARTS DEGREE**

To graduate with a specialization in Restaurant Management, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units).

REQUIRED COURSES:	UNITS
RM/FS 101 Introduction to Restaurant Management/ Food Service	3
RM110x3 Restaurant Internship I	1.5 - 10
RM111x2 Restaurant Internship II	1.5 - 10
RM 160 Introduction to Foods	3
RM/FS 161 Quantity Food Preparation	3
RM/FS 201 Food Service Operations and Restaurant Problems	3
RM/FS 225 Sanitation and Safety	3
RM/FS 240 Purchasing	3
RM 250 Dining Room Service	3
RM 275 Food and Beverage Cost Control	3
FCS 162 Nutrition	3
TOTAL UNITS:	30-47

RESTAURANT MANAGEMENT/FOOD SERVICE CERTIFICATES

1. DINING ROOM SERVICE CERTIFICATE

The Dining Room Service Certificate is designed to prepare students for entry-level employment in the front-of-the-house of the Restaurant/Hospitality industry. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
RM/FS 101 Introduction to Restaurant Management/ Food Service	3
RM110x3 Restaurant Internship I	1.5 - 10
RM111x2 Restaurant Internship II	1.5 - 10
RM/FS 161 Quantity Food Preparation	3
RM/FS 225 Sanitation and Safety	3
RM 250 Dining Room Service	3
BUSCAL 050 Quantitative Methods in Business	3
TOTAL UNITS:	18-35

2. FOOD PREPARATION CERTIFICATE

The Food Preparation Certificate is designed to prepare students for entry-level employment in food preparation. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
RM/FS 101 Introduction to Restaurant Management/ Food Service	3
RM110x3 Restaurant Internship I	1.5 - 10
RM111x2 Restaurant Internship II	1.5 - 10
RM 160 Food Preparation	3
RM/FS 161 Quantity Food Preparation	3
RM/FS 225 Sanitation and Safety	3
RM/FS 240 Purchasing	3
BUSCAL 050 Quantitative Methods in Business	3
TOTAL UNITS:	21-38

3. FOOD SERVICE CERTIFICATE

The Food Service Certificate is designed for students interested in employment at commercial restaurants, institutions, health care facilities, school food services, and related food service industries. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
RM/FS 101 Introduction to Restaurant Management/ Food Service	3
RM/FS 161 Quantity Food Preparation	3
RM/FS 201 Food Service Operations and Restaurant Problems	3
RM/FS 225 Sanitation and Safety	3
RM 235 Menu Planning	3
RM/FS 240 Purchasing	3
RM 275 Food and Beverage Cost Control	3
ACCT 100 Introduction to Accounting I	4
BUSAD 100 Introduction to Business	3
BUSCAL 050 Quantitative Methods in Business	3
TOTAL UNITS:	31

4. RESTAURANT MANAGEMENT CERTIFICATE

The Restaurant Management Certificate is designed for students who are interested in entering middle-management positions within the Restaurant/Hospitality industry. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
RM/FS 101 Introduction to Restaurant Management/ Food Service	3
RM110x3 Restaurant Internship I	1.5 - 10
RM111x2 Restaurant Internship II	1.5 - 10
RM 160 Food Preparation	3
RM/FS 161 Quantity Food Preparation	3
RM/FS 201 Food Service Operations and Restaurant Problems	3
RM/FS 225 Sanitation and Safety	3
RM/FS 240 Purchasing	3
RM 250 Dining Room Service	3
RM 275 Food and Beverage Cost Control	3
ACCT 100 Introduction to Accounting I	4
BUSAD 100 Introduction to Business	3
BUSCAL 050 Quantitative Methods in Business	3
FCS 162 Nutrition	3
TOTAL UNITS:	40-60

COURSES OFFERED BY THE DEPARTMENT OF RESTAURANT MANAGEMENT/FOOD SERVICE:

**RM/FS 101
INTRODUCTION TO RESTAURANT
MANAGEMENT/FOOD SERVICE 3 UNITS**

PREREQUISITE: None.

COREQUISITE: RM 110x3 or RM 111x2.

LECTURE: 3 hours per week.

History of restaurant management and food service industries showing progress, change and future opportunities. Introduction to the economics of restaurants, coffee shops, cafeterias and institutional feeding.

*Associate Degree Applicable
Course credit transfers to CSU.*

**RM/FS 161
QUANTITY FOOD PREPARATION 3 UNITS**

PREREQUISITE: RM 160 or FCS 160.

LECTURE: 3 hours per week.

Introduction to the scientific theory of the application of heat, and the changes that takes place in food during the cooking process. Includes handling of kitchen tools and equipment, analysis of budgets, and the proper techniques of preparing food for quantity production. This course is also listed as FCS 161.

*Associate Degree Applicable
Course credit transfers to CSU.*

**RM/FS 201
FOOD SERVICE OPERATIONS AND RESTAURANT
PROBLEMS 3 UNITS**

PREREQUISITE: None.

LECTURE: 3 hours per week.

Training in duties performed at various stations in a cafeteria with discussion of the physical aspects of restaurant operations including problems dealing with dining rooms, service facilities, remodeling, furnishing and the use of mechanical equipment.

*Associate Degree Applicable
Course credit transfers to CSU.*

RM/FS 225
SANITATION AND SAFETY **3 UNITS**
PREREQUISITE: RM/FS 101 or RM 160 or RM/FS 161
or FCS 160.

LECTURE: 3 hours per week.

Sanitation and safety as these effect the individual and the operation with a focus on the prevention and control of problems encountered in client and employee safety and sanitation. Includes accidents, fire prevention, security maintenance and foodborne illnesses. This course is also offered as FCS 225.

Associate Degree Applicable
Course credit transfers to CSU.

RM/FS 240
PURCHASING **3 UNITS**
PREREQUISITE: None.

LECTURE: 3 hours per week.

Policies, procedures, controls and their implementation in purchasing merchandise and supplies including food, beverage, equipment, serveware, furniture, fixtures, and contract services. Students write and analyze reports of purchasing procedures, manuals, and receiving reports. This course is also offered as FCS 240.

Associate Degree Applicable
Course credit transfers to CSU.

RM 110x3
RESTAURANT INTERNSHIP I **1.5 - 10 UNITS**
PREREQUISITE: None.

LABORATORY: 4.5 - 30 hours per week.

The laboratory is an operational restaurant. Includes techniques of preparing entrees, short orders, and desserts in quantity; recipe standardization; determination of need and supplies; organization of work stations; effective use of equipment and time management; and attractive service. This course may be taken three times.

Associate Degree Applicable.
Course credit transfers to CSU.

RM 111x2
RESTAURANT INTERNSHIP II **1.5 - 10 UNITS**
PREREQUISITE: None.

LABORATORY: 4.5 - 30 hours per week.

The laboratory is an operational restaurant. Includes the language of food and food preparation techniques (American and French); strategies for catering; and techniques for preparing soups, sauces, and stocks. This course may be taken twice.

Associate Degree Applicable
Course credit transfers to CSU.

RM 160
INTRODUCTION TO FOODS **3 UNITS**
PREREQUISITE: None.

LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

Introduction to food science principles and food preparation techniques. Emphasis on ingredient functions and interactions; technique, production and sensory evaluation standards, food safety, sanitation, nutrient values, and food presentation. This course is also listed as FCS 160.

Associate Degree Applicable
Course credit transfers to CSU.

RM 198
RESTAURANT MANAGEMENT WORK EXPERIENCE
1-4 UNITS

PREREQUISITE: None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

RM 235
MENU PLANNING **3 UNITS**
PREREQUISITE: RM/FS 101 or RM/FS 161 or FCS 160.

LECTURE: 3 hours per week.

Principles of menu planning with emphasis on development, types, organization, and significance of menus. Includes cost and pricing of menu items, and current legislation regarding truth in advertising. This course is also offered as FCS 235.

Associate Degree Applicable
Course credit transfers to CSU.

RM 250
DINING ROOM SERVICE **3 UNITS**
PREREQUISITE: RM/FS 101.

LECTURE: 3 hours per week.

Course is taught with the proprietor and the dining room employees in mind. Topics covered include: psychology of service, dining room organization, training in American, Buffet, Butter, English, French, and Russian service techniques; use of equipment, tableside service, and wine and beverage service.

Associate Degree Applicable
Course credit transfers to CSU.

RM 275
FOOD AND BEVERAGE COST CONTROL **3 UNITS**
PREREQUISITE: RM/FS 101.

LECTURE: 3 hours per week.

Topics of coverage include: costs, sales, sales prices, profit relationships, break-even analysis, control techniques, food controls, beverage controls and labor controls.

Associate Degree Applicable
Course credit transfers to CSU.

RM 298-299
SPECIAL TOPICS IN RESTAURANT MANAGEMENT
.25-3 UNITS

PREREQUISITE: None.

LECTURE: 4-48 hours per semester.

Selected seminars in the field of Restaurant Management developed to meet specific group needs. Topics may include current trends in baking, meat utilization, and techniques for preparing soups and sauces.

Associate Degree Applicable
Course credit transfers to CSU.

SCIENCE AND MATH SUCCESS CENTER

DIVISION: Science and Math Division
DIVISION DEAN: Haragewen Kinde, Ed.D.
Chemistry 114
(909) 384-8268
DIVISION SECRETARY: Rose Garcia
DIVISION OFFICE: Chemistry 121
(909) 384-8645
LIAISON COUNSELOR: Rafael Herrera, M.S.
(909) 384-4404

The Science Learning Center is a new program on campus to help students succeed in introductory science courses. It is flexibly designed to teach students methods of study necessary for success in any science class. Students will also be provided with short-term solutions to immediate problems specific to their course of study.

SLC 600

SCIENTIFIC READING AND STUDY SKILLS

NON-CREDIT

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: Concurrent enrollment in an introductory, degree-applicable science course.

LECTURE: 2 hours per week.

Designed to investigate the purpose of scientific inquiry, the study skills needed in introductory science courses, and the use of science textbooks and other written material such as tables and graphs. It is intended to help students succeed in introductory science courses. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

SIGN LANGUAGE

See AMERICAN SIGN LANGUAGE

SOCIOLOGY

DIVISION: Social Science & Human Development
DIVISION DEAN: Janice Noble, Ph.D.
DEPARTMENT HEAD: Janet Pielke Brennecke, M.A.
DIVISION SECRETARY: Karen Deck
DIVISION OFFICE: Liberal Arts 122
(909) 384-8603
LIAISON COUNSELOR: Laura Gomez, M.A.
(909) 384-4404

Sociology is both a scientific and humanistic discipline. Sociologists examine the systems of social action including single social acts, social relationships, organizations, institutions, communities, and societies. Through analyses of society, its groups, institutions, and processes, sociologists attempt to understand and predict human behavior.

The study of sociology prepares students for further study of and careers in social work, probation, corrections, human services, law enforcement, research, public policy, law and education. Students planning to transfer to a four-year institution and major in sociology should consult with a counselor regarding the transfer process and lower division requirements.

COURSES OFFERED BY THE DEPARTMENT OF SOCIOLOGY:

SOC 100

INTRODUCTION TO SOCIOLOGY

3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

Examination of the social influences on human behavior focusing on American social patterns and process; structure and function; conflict and change in society; multicultural conflicts; and a comparison of these processes with international and global patterns.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

SOC 100H

INTRODUCTION TO SOCIOLOGY – HONORS

3.00 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

Careful examination of the social influences on human behavior focusing on social patterns and processes, structure and function, conflict and change in society and culture in general with emphasis on American institutions in a multicultural society and their relationship to global patterns. Enrollment limited to students eligible for the Honors Program.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

SOC 110

CONTEMPORARY SOCIAL ISSUES

3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

An analysis of issues of concern in American society such as crime, racism, sexism, aging, substance abuse, divorce, social inequality and social change.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): SOC 4

SOC 130

MARRIAGE AND THE FAMILY

3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

A descriptive and analytical survey of the structure and process of contemporary families and marriages. Includes analysis of these relationships as intimate relationships and social institutions.

Associate Degree Applicable

Course credit transfers to CSU and UC.

SOC 141

RACE AND ETHNIC RELATIONS

3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

An analysis of the major sociological perspectives, race, and ethnic relations, domestic and global, with emphasis on the nature and trends in race/ethnic relations in American society and comparative cultures, focusing on inter-ethnic and inter-group conflicts.

Associate Degree Applicable

Course credit transfers to CSU and UC.

SOC 145
SOCIOLOGY OF GENDER **3 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: ENGL 015 or eligibility for ENGL 101.

LECTURE: 3 hours per week.
 Examines the changing roles of women and men in contemporary American society. A sociological and humanistic approach will be utilized to analyze gender roles in major social institutions: the family, religion, education, work, mass media, law, medicine, and political and economic structures.
Associate Degree Applicable
Course credit transfers to CSU and UC.

SOC 150
INTRODUCTION TO GERONTOLOGY:
SOCIAL ASPECTS OF AGING **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.

This course examines aging and the life course. It explores how the aging process is influenced and shaped by societal forces, covering physical, psychological, and economic as well as social aspects of aging. This course will examine these processes of aging as they affect individuals, families, cohorts and societies.
Associate Degree Applicable
Course credit transfers to CSU and UC.

SOC 285
HONORS IN SOCIOLOGY **3 UNITS**
PREREQUISITE: SOC 100.
COREQUISITE: SOC 100.
LECTURE: 3 hours per week.

A treatment of the major paradigms and theories in sociology including structuralism, functionalism, conflict theory, interactionism, and ethnomethodology. Includes research methods and new directions in sociology with emphasis on sociological practice.
Associate Degree Applicable
Course credit transfers to CSU and UC.

SPANISH

DIVISION: Humanities
 DIVISION DEAN: Marjorie Price, M.A., M.Ed.
 DEPARTMENT HEAD: Nori Sogomonian, M.A.
 North Hall 221-222
 (909) 384-8544
 OTHER FACULTY: Lydia Barrajas-Zapata, M.A.
 Yon Che, M.A.
 Jose Recinos, Ph.D.
 Bert Reins, B.A.
 DIVISION SECRETARIES: Kelly Adcock
 (909) 384-8906
 Cheryl Benner
 (909) 384-8633
 DIVISION OFFICE: North Hall 236
 (909) 384-4445
 LIAISON COUNSELOR: Juan Zepeda, M.S.
 (909) 384-4404

The ever-increasing role that the United States takes in global affairs, international trade, and the growing numbers of immigrants dictate the need for knowledge of a modern foreign language. The primary objective of the Modern Languages Department is communication at an acceptably correct level with an understanding of culture. Teaching methods incorporate critical thinking activities and include the direct oral approach, lectures and

language laboratory assignments. Courses are offered in American Sign Language, French, and Spanish.

Students planning to transfer to a four-year institution and major in a modern language should consult with a counselor regarding the transfer process and lower division requirements. Positions for which four-year graduates in modern languages are qualified are teaching, business, foreign services, law enforcement, nursing, hospitality services, and secretarial services.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Apply learned knowledge to new situations.
- Work effectively in group settings.
- Demonstrate knowledge of and respect for other cultures.

SPANISH COURSES OFFERED BY THE DEPARTMENT OF MODERN LANGUAGES:

SPAN 015
CONVERSATIONAL SPANISH I **3 UNITS**
PREREQUISITE: None.

LECTURE: 3 hours per week.
 Develops conversational skills, listening comprehension and speaking skills in the Spanish language for persons who wish to learn to communicate orally in Spanish for purposes of personal pleasure or business.
Associate Degree Applicable

SPAN 016
CONVERSATIONAL SPANISH II **3 UNITS**
PREREQUISITE: SPAN 015.

LECTURE: 3 hours per week.
 Develops additional conversational skills, listening comprehension and the ability to speak the Spanish language.
Associate Degree Applicable

SPAN 101
COLLEGE SPANISH I **5 UNITS**
PREREQUISITE: None.

LECTURE: 5 hours per week.
 Develops the ability to converse, read and write in Spanish. The course includes the study of essentials of pronunciation, vocabulary, idioms and grammatical structures along with an introduction to the cultures of Spanish speaking peoples. This course corresponds to two years of high school study.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): SPAN 2

SPAN 102
COLLEGE SPANISH II **5 UNITS**
PREREQUISITE: SPAN 101.
LECTURE: 5 hours per week.
Continues to develop conversational, reading and writing skills in Spanish, with special emphasis on past tense verbs, grammar, vocabulary expansion and cultural applications of the Spanish language.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): SPAN 4

SPAN 103
COLLEGE SPANISH III **4 UNITS**
PREREQUISITE: SPAN 102.
LECTURE: 4 hours per week.
Develops complex conversational, reading and writing skills, with emphasis on the subjunctive and hypothetical situations. Expands vocabulary in the Spanish language and awareness of Hispanic culture through literature.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*
CAN (California Articulation Number): SPAN 8

SPAN 103H
COLLEGE SPANISH III - HONORS **4 UNITS**
PREREQUISITE: SPAN 102.
LECTURE: 4 hours per week.
Develops complex conversational, reading and writing skills, with emphasis on the subjunctive and hypothetical situations. Expands vocabulary in the Spanish language and awareness of Hispanic culture through literature. Enrollment is limited to students eligible for the Honors Program.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

SPAN 104
COLLEGE SPANISH IV **4 UNITS**
PREREQUISITE: SPAN 103 or SPAN 158.
LECTURE: 4 hours per week.
Develops language skills through reading, discussion, analysis, and writing about culturally representative works from Spain and Latin America. Emphasis on composition and literature as an expression of culture.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): SPAN 10

SPAN 119
SPANISH FOR MEDICAL PERSONNEL **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.
Develops comprehension and communication skills in Spanish for medical personnel working with Spanish speaking patients. Presents interview questions and basic medical terminology and general cultural information essential in the job performance.
Associate Degree Applicable
Course credit transfers to CSU.

SPAN 140
SPANISH FOR CHILD DEVELOPMENT **3 UNITS**
PREREQUISITE: None.
LECTURE: 3 hours per week.
Language and listening experiences in Spanish through the use of literature, music, conversation and dramatic play. Emphasis will be placed on acquisition of basic communication skills appropriate for those students teaching or planning to teach in early childhood bilingual-bicultural learning environments. This course is equivalent to CD 140.
Associate Degree Applicable
Course credit transfers to CSU.

SPAN 157
SPANISH FOR NATIVE SPANISH SPEAKERS I **5 UNITS**
PREREQUISITE: None.
LECTURE: 5 hours per week.
A beginning course for the Spanish speaking population. Develops conversational, reading and writing skills in Spanish with special emphasis on past tense verbs, grammar, vocabulary expansion and cultural applications of the Spanish language. Course is conducted primarily in Spanish, producing skills equivalent to SPAN 102.
Associate Degree Applicable
Course credit transfers to CSU and UC.

SPAN 158
SPANISH FOR NATIVE SPANISH SPEAKERS II **4 UNITS**
PREREQUISITE: SPAN 157.
LECTURE: 4 hours per week.
A continuation of Spanish 157 designed for students who already communicate in Spanish and who want to develop and strengthen reading and writing skills with special emphasis on vocabulary expansion, proper grammatical usage, cultural and literary applications of the Spanish language. Course is conducted in Spanish, producing skills equivalent to Spanish 103.
Associate Degree Applicable
*Course credit transfers to CSU and *UC.*

SPAN 227A
SELECTED STUDIES IN SPANISH: COSTA RICA **2 UNITS**
PREREQUISITE: SPAN 104.
LABORATORY: 4 hours per week.
Further students' knowledge of the language, history and culture of the host country through study of assigned topics on the host country during a study abroad experience. Explores history and culture of the host country.
Applicable to the Associate Degree
Course credit transfers to CSU.

SPEECH

DIVISION: Humanities
DIVISION DEAN: Marjorie Price, M.A., M.Ed.
DEPARTMENT HEAD: Leticia Hector, M.A.
Liberal Arts 239
(909) 384-8618
OTHER FACULTY: Diane Ablinger, M.A.
Jay Danley, M.A., J.D.
DIVISION SECRETARIES: Kelly Adcock
(909) 384-8906
Cheryl Benner
(909) 384-8633
DIVISION OFFICE: North Hall 236
(909) 384-4445
LIAISON COUNSELOR: Juan Zepeda, M.S.
(909) 384-4404

Courses offered by the Department of Speech are designed to foster practical communication skills. The emphasis is the development of the skills and techniques essential for effective public and interpersonal communication—a prerequisite for both occupational and personal success.

Students planning to transfer to a four-year institution and major in speech should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Find and interpret information.
- Give and receive constructive feedback.
- Demonstrate creative thought through original expression.

COURSES OFFERED BY THE DEPARTMENT OF SPEECH:

SPEECH 910 PREPARATION FOR PUBLIC SPEAKING 3 UNITS PREREQUISITE: None.

LECTURE: 3 hours per week.

Intended for those students who need improvement in basic communication skills prior to enrollment in a transfer-level speech course. Pronunciation drills, interviewing techniques, basic research methods, small group discussion, organizational skills, and techniques for controlling stage fright are addressed. Individual and group presentations are included.

Not applicable to the Associate Degree

SPEECH 100 ELEMENTS OF PUBLIC SPEAKING 3 UNITS PREREQUISITE: None.

LECTURE: 3 hours per week.

Training in the application of the concepts, principles, and skills of effective speech communication situations and public speaking.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

CAN (California Articulation Number): SPCH 4

SPEECH 100H ELEMENTS OF PUBLIC SPEAKING - HONORS

3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

This course focuses on advanced training in the application of the concepts, principles, and skills of effective public speaking. Concepts such as structure, adapting messages to culturally diverse audiences, research principles, and critical evaluation of evidence and arguments are explored. Delivery, listening, and feedback skills are also discussed and practiced in a variety of presentations. Enrollment is limited to students eligible for the Honors Program. This course is also offered as SPEECH 100.

Associate Degree Applicable

*Course credit transfers to CSU and *UC.*

SPEECH 110 BEGINNING VOICE AND DICTION 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

Techniques of voice production for both public speaking and the stage. Includes theory and practice in developing vocal skills for performance such as breathing, pitch, rate, articulation, volume, and quality. This course is also offered as THART 110. Note: It is not anticipated that this course will be offered during the current academic year.

Please contact the Division Office for more information.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): SPEECH 110 or

THART 110 = DRAM 6

SPEECH 111 INTERPERSONAL COMMUNICATION 3 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week.

Examines the dynamics of the communication process within the context of interpersonal relationships (those with friends, families, romantic partners, and co-workers.) Influences of self-concept, perception, listening, verbal and non-verbal communication, and emotional expression are explored. Principles of relationship development, communication climate, self-disclosure, and conflict management are also discussed. Rhetorical principles are also practiced and faculty supervised/evaluated in a variety of ways.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): SPCH 8

SPEECH 120 ORAL INTERPRETATION 3 UNITS

PREREQUISITE: SPEECH 100.

LECTURE: 3 hours per week.

Training in the analysis of literature for oral reading with practice in the presentation of materials from the platform. Includes instruction in effective speech skills and the remediation of minor voice problems.

Associate Degree Applicable

Course credit transfers to CSU and UC.

SPEECH 125
CRITICAL THINKING THROUGH ARGUMENTATION
AND DEBATE **3 UNITS**

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: SPEECH 100 or
SPEECH 111.

LECTURE: 3 hours per week.

Designed to provide an oral approach to critical thinking skills. Language, argument structure, types of reasoning, evaluation of evidence, fallacies in reasoning, and case development strategies are explored. Individual and group debating experiences are included.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): SPCH 6

SPEECH 130
INTRODUCTION TO COMMUNICATION **3 UNITS**

PREREQUISITE: None.

LECTURE: 3 hours per week.

Theory-based introduction to basic concepts in human communication. Provides overview of the field of communication by addressing public, rhetoric, interpersonal, intercultural, group, organizational, mass and mediated communication. Individual and group presentations help students identify and analyze communication patterns and their effects as well as develop strategies for becoming better communicators.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): SPCH 2

SPEECH 135
MASS MEDIA AND SOCIETY **3 UNITS**

PREREQUISITE: None.

LECTURE: 3 hours per week.

An exploration of the history, effects, and role of the mass media in the U.S. The major forms of mass communication are studied (television, radio, film, newspapers and magazines). Focuses on critical analysis of media messages, effects of media on individual and society, and theories of communication. Students move beyond being "consumers" of media to "analysts" of media.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): JOUR 4

SPEECH 140
SMALL GROUP COMMUNICATION **3 UNITS**

PREREQUISITE: None.

LECTURE: 3 hours per week.

Explores discussion principles, communication skills, conflict management, participation practices, and leadership within small groups in a variety of contexts. Group formation, verbal and nonverbal communication, listening, and decision-making procedures are also examined. Emphasis is on group participation, group discussion, and group projects/presentations.

Associate Degree Applicable

Course credit transfers to CSU and UC.

CAN (California Articulation Number): SPCH 10

SPEECH 174
INTERCULTURAL COMMUNICATION **3 UNITS**

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: ENGL 015 or eligibility
for ENGL 101 as determined through the SBVC
assessment process.

LECTURE: 3 hours per week.

This course focuses on the communication behavior and values common to all cultures and ethnic groups and on the differences that insulate and divide people. Students will examine influences on the communication process, including stereotyping, perception, prejudice, values, expectations, etc. Students will learn to overcome the communication problems that can result when members of other cultures communicate by evaluating their own intercultural communication patterns and learning skills to increase their effectiveness. Students will also acquire a greater appreciation for others.

Associate Degree Applicable

Course credit transfers to CSU and UC.

SPEECH 176
GENDER DIFFERENCES IN COMMUNICATION
3 UNITS

PREREQUISITE: None

DEPARTMENTAL ADVISORY: ENGL 015 or eligibility
for ENGL 101 as determined through the SBVC
assessment process.

LECTURE: 3 hours per week.

This course explores the gender differences evident in communication. Students will examine the theories concerning gender differences, issues of gender in a variety of contexts (families, relationships, the workplace, the media, school), and the differences in the communication patterns resulting from gender. Students will evaluate their own communication for evidence of gender patterns, and will discuss effective communication skills.

Associate Degree Applicable

Course credit transfers to CSU and UC.

SPEECH 222
INDEPENDENT STUDY IN SPEECH **1-3 UNITS**

PREREQUISITE: None.

INDEPENDENT STUDY: 3-9 hours per week.

Assigned projects involving research and analysis of selected topics or directed study for students who are interested in furthering their knowledge of speech on an independent study bases. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

Associate Degree Applicable

Course credit transfers to CSU.

STUDENT DEVELOPMENT

DIVISION: Counseling and Matriculation
DIVISION DEAN: Marco Cota, M.A.
DIVISION OFFICE: Administration/ Student Services 103
(909) 384-8966
DIVISION SECRETARY: Laura Cross
LIAISON COUNSELOR: Cindy Parish, M.S.
(909) 384-4404

The Student Development (SDEV) curriculum includes courses for students with disabilities, UC Puenta Project, academic and career planning strategies, and information about academic strengths and limitations. Courses are designed to help students succeed in college, develop good study habits, learn decision-making models; obtain in-depth information on associate degree and certificate requirements, transfer to universities, campus resources, and prepare for employment.

COURSES OFFERED BY THE DEPARTMENT OF STUDENT DEVELOPMENT:

SDEV 900 ASSESSMENT OF LEARNING DISABILITIES .50 UNIT

PREREQUISITE: None.
LECTURE: .5 hour per week.

Introduction to the history, general characteristics and legal definition of learning disabilities. Includes identification of students' learning strengths and weaknesses and the determination of students' eligibility for learning disability services. Emphasis on the LD services at the college and the development of an individualized education plan to compensate for any identified learning disability. Graded on Credit/Non-Credit basis only.

Not applicable to Associate Degree.

SDEV 901X3 INTRODUCTION TO COMPUTER ADAPTIVE TECHNOLOGY 2 UNITS

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: *This course is intended for students with medically verified disability or disabilities (students who must use adaptive computer hardware and software to complete course requirements) and students with access limitations. Instructor may grant permission to non-disabled students who want to explore assistive technology and software. This is an open entry, open exit course.*

LECTURE: 1 hour per week and
LABORATORY: 3 hours per week.

This course is designed as an introduction to Adaptive Computer Technology. Provides disabled students with an opportunity to evaluate available adaptive technologies and software, as well as appropriateness of accommodations required for parity with peers in regular college classes. Instructor may grant permission to regular students who want to explore adaptive technology and software. This course may be taken three times.

Not applicable to Associate Degree

SDEV 902 SUCCESS STRATEGIES FOR STUDENTS WITH DISABILITIES 3 UNITS

PREREQUISITE: None.
LECTURE: 3 hours per week.

Designed for students with learning disabilities, attention deficit disorders, anger management issues, addictions, depression, anxiety, and other conditions, this class focuses on the intervention strategies necessary for the success of students with disabilities. Specialized instruction is designed for students seeking to overcome challenges to academic, career and relational success. Based upon current brain research and hands-on multi sensory learning experiences, each student will develop an intervention success plan.

Not applicable to Associate Degree

SDEV 905 SUPPORTIVE LEARNING IN MATHEMATICS 1 UNIT PREREQUISITE: None.

LABORATORY: 3 hours per week.

Course provides specialized instruction and tutoring to individuals and small groups in basic mathematics. Although this course is designed for students with disabilities as certified through diagnostic testing, all students are welcome to enroll. Support strategies to minimize the effects of the disability in the academic setting are presented to maximize students' effectiveness in mainstream classes. Graded on a Credit/Non-Credit basis only.

Not applicable to Associate Degree.

SDEV 906 SUPPORTIVE LEARNING IN READING 2 UNITS PREREQUISITE: None.

LABORATORY: 6 hours per week.

This multi-sensory phonics course provides specialized instruction and tutoring to individuals and small groups in reading. Although this course is designed for students with disabilities as certified through diagnostic testing, all students are welcome to enroll. Support strategies to minimize the effects of the disability in the academic setting are presented to maximize students' effectiveness in mainstream classes. Graded on a Credit/Non-Credit basis only.

Not applicable to Associate Degree.

SDEV 907 VOCATIONAL PLANNING AND PRE-EMPLOYMENT SKILLS 3 UNITS

PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.

This course is designed to help students with disabilities develop the pre-employment skills needed to seek and obtain employment, and the disability management and work adjustment skills needed to maintain employment. Students will learn to write resumes, cover letters and follow-up letters, complete applications, dress professionally, interview successfully, conduct a job search, and manage the disability in the work setting. Students will also learn about federal and state laws pertaining to disability and employment. The course is designed for students with disabilities.

Not applicable to Associate Degree

SDEV 010
EDUCATION PLANNING .5 UNIT

PREREQUISITE: None.
DEPARTMENTAL ADVISORY: *Students are encouraged to complete the course in their first or second semester.*

LECTURE: .5 hours per week.
Develops student ability to create an individualized education plan. Instruction will include UC, CSU, and independent university transfer requirements. Associate degree, certificate, and academic policies will be included. Graded on a credit/no credit basis only.
Associate Degree Applicable

SDEV 015
PUENTE: STRATEGIES FOR COLLEGE SUCCESS 1 UNIT

PREREQUISITE: None.
LECTURE: 1 hour per week.
Helps students identify their academic strengths and limitations as a first step in long-term educational planning for transfer. In addition, students learn essential skills for creating success in college. This course is paired with ENGL 015 Preparation for College Writing (Puente Project). Enrollment is limited to students in the UC Puente Project.
Associate Degree Applicable

SDEV 101
PUENTE: STRATEGIES FOR COLLEGE AND CAREER SUCCESS 1 UNIT

PREREQUISITE: None.
LECTURE: 1 hour per week.
Designed for students in the UC Puente Project, this course is designed to prepare students for an active role in their education and community. In addition, students learn essential skills for creating success in chosen careers. Includes a mentoring component which links students with community professionals in their major area of study. This course is paired with ENGL 101 Freshman Composition (Puente Project). Enrollment is limited to students in the UC Puente Project.
Associate Degree Applicable
Course credit transfers to CSU.

SDEV 102
COLLEGE TO CAREER 2 UNITS
PREREQUISITE: None.
LECTURE: 2 hours per week.

Designed for students seeking direction in setting academic and career goals. A bio-psycho-social perspective will be used to highlight the person-environment dynamics crucial to a well-rounded preparation for a fulfilling career. Major topics will include evaluation of personal interests, abilities and values, and the utilization of technological resources to identify career choices and labor market trends.
Associate Degree Applicable
Course credit transfers to CSU.

TECHNICAL CALCULATIONS
See courses within the Department of
ELECTRICITY/ELECTRONICS

THEATRE ARTS

DIVISION: Humanities
DIVISION DEAN: Marjorie Price, M.A., M.Ed.
DEPARTMENT HEAD: Leticia Hector, M.A.
Liberal Arts 239
(909) 384-8618
OTHER FACULTY: Denise Dale Jacobs, M.F.A.
DIVISION SECRETARIES: Kelly Adcock
(909) 384-8906
Cheryl Benner
(909) 384-8633
DIVISION OFFICE: North Hall 236
(909) 384-4445
LIAISON COUNSELOR: Juan Zepeda, M.S.
(909) 384-4404

Theatre Arts is the study of human expression which culminates in live performance. The play is the medium used to tell a story performed by actors. Theatre Arts includes the study of the literature and related disciplines and technologies required for performances.

The Theatre Arts Department coordinates several student performances each year.

Courses offered by the Theatre Arts Department emphasize individual creativity, personal interaction, and communication skills. Courses are designed to meet the needs of students fulfilling general education requirements and the needs of students who are pursuing theatre as a major. Students planning to transfer to a four-year institution and major in Theatre Arts or a related field should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Find and interpret information.
- Give and receive constructive feedback.
- Demonstrate creative thought through original expression.
- Work effectively in group settings.

COURSES OFFERED BY THE DEPARTMENT OF THEATRE ARTS:

THART 100
INTRODUCTION TO THE THEATRE 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.

An introduction to theatre from behind-the-scenes to on-stage. In this course students discover the nature of theatre as an art form, how productions are designed and directed, what actors think about in developing roles, where theatre has come from, the directions it has taken, and what its future might be.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): DRAM 18

THART 110
BEGINNING VOICE AND DICTION 3 UNITS
PREREQUISITE: None.
LECTURE: 3 hours per week.
 Techniques of voice production for both public speaking and the stage. Includes theory and practice in developing vocal skills for performance such as breathing, pitch, rate, articulation, volume, and quality. This course is also offered as SPEECH 110. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): THART 110 or SPEECH 110 = DRAM 6

THART 114x4
THEATRE PRACTICUM 4 UNITS
PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 6 hours per week.
 Supervised rehearsal and performance of a college musical and/or play production. Focuses on all aspects of theatre presentation, acting, and production. Enrollment in this class is contingent upon an audition for a current theatre production. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): DRAM 16

THART 120
ACTING FUNDAMENTALS I 3 UNITS
PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.
 Introduction to acting techniques including foundational performing skills using techniques in relaxation, concentration, improvisation and mime. Practice in non-verbal communication and creative problem-solving working individually and in groups.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): DRAM 8

THART 121
ACTING FUNDAMENTALS II 3 UNITS
PREREQUISITE: THART 120.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.
 A continuation of THART 120. Includes further practice in relaxation and concentration techniques; the development of character through script analysis with emphasis on physicalization; scene work; and the preparation of monologues.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): DRAM 22

THART 135
DIRECTING FUNDAMENTALS I 3 UNITS
PREREQUISITE: THART 120 or equivalent.
LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.
 This course is an introductory study of techniques of directing for the theatre. Topics to be covered include such areas as script analysis and blocking, rehearsal, staging, and the processes to be followed in working with other creative artists in theatre including producers, designers, and crews. Beginning directors will work with beginning and intermediate actors on class projects which may culminate in workshop production.
Associate Degree Applicable
Course credit transfers to CSU and UC.

THART 160x4
THEATRE CRAFTS 3 UNITS
PREREQUISITE: None.
LABORATORY: 9 hours per week.
 Study of technical practices in the theatre, including identification and use of tools and hardware; the construction and painting of props and scenery; rigging; the recognition, maintenance, hanging and focusing of lighting instruments; the design of sound systems and effects; the construction and preparation of costumes and make-up; the development of publicity for public performances; stage management; and the understanding and practice of safety in the theatre. This course may be taken four times.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): DRAM 12

THART 165
STAGE MAKEUP 3 UNITS
PREREQUISITE: None.
LECTURE: 2 hours per week and
LABORATORY: 3 hours per week.
 Extensive exploration of the theory, design, and application of makeup for the theatre. Students gain experience in applying makeup to both students in the class and students in the college's theatrical productions. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.
Associate Degree Applicable
Course credit transfers to CSU and UC.
CAN (California Articulation Number): DRAM 14

THART 222
INDEPENDENT STUDY IN THEATRE 1-3 UNITS
PREREQUISITE: None.
INDEPENDENT STUDY: 3-9 hours per week.
 Assigned projects involving character analysis and performance experience, directorial and/or stage management experience, and experience in the state crafts (e.g., lighting, sound, costume, makeup, etc.) or directed study for selected students who are interested in furthering their knowledge of theatre on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.
Associate Degree Applicable
Course credit transfers to CSU and UC.
Limited transfer to UC; credit determined after transfer to UC.

WAREHOUSE

DIVISION: Applied Technology & Transportation
DIVISION DEAN: Thomas Bauman, M.S., P.E.
DIRECTOR: Kevin Anderson, M.B.A.
DEPARTMENT SECRETARY: Amanda Moody
(909) 382-4079
DEPARTMENT OFFICE: 264 S. Leland Norton Way
Suite A120, San Bernardino
LIAISON COUNSELOR: Jennifer Mendoza, M.S.
(909) 384-4404

Core competencies emphasized by courses in this department:

- Employ vocabulary of the subject studied.
- Accept responsibility for own actions.
- Exhibit personal, professional and academic honesty.
- Develop time management skills.
- Work effectively in group settings.

GENERAL WAREHOUSING CERTIFICATE

This certificate is designed to provide students with the fundamentals for entry-level employment in the warehousing field, including overall warehousing and distribution operations, software systems, safety issues, and forklift and other industrial powered trucks. Training covers operation, inspection, and basic maintenance. Upon successful completion of the course, the student will receive certification in accordance with CalOSHA to operate forklifts. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
WAREHS 020 Introduction to Warehouse Operations	4
WAREHS 021 Forklift Operation and Certification	1
TOTAL UNITS:	5

Recommended High School Preparation: General courses in English, math and computers are recommended.

WAREHS 020 INTRODUCTION TO WAREHOUSE OPERATIONS 4 UNITS

PREREQUISITE: None.

LECTURE: 3 hours per week and

LABORATORY: 3 hours per week.

This course is designed to introduce students to warehouse operations, the objectives of warehousing; software information systems used in warehousing, and warehouse safety. In the laboratory part of the course, students will be exposed to practical activities in a functioning warehouse. Upon completion of the course, students should be well prepared to enter the field of warehousing, distribution, or logistics.

Associate Degree Applicable

WAREHS 021 FORKLIFT OPERATION AND CERTIFICATION 1 UNIT **PREREQUISITE:** None.

LECTURE: 0.5 hour per week and

LABORATORY: 1.5 hours per week.

his course provides the student with training in forklift and other industrial powered trucks typically used in the warehousing and distribution industries. Training covers operation, inspection, basic maintenance and safety. Training is provided in accordance with CalOSHA standards, and upon successful completion of the course, the student will receive certification in accordance with CalOSHA to operate forklifts.

Associate Degree Applicable

WATER SUPPLY TECHNOLOGY

DIVISION: Applied Technology & Transportation
DIVISION DEAN: Thomas Bauman, M.S., P.E.
DEPARTMENT HEAD: William Clarke, Ed.D.
Technical 108
(909) 384-8504
OTHER FACULTY: Achala Chatterjee, M.S.C.E., P.E.
DIVISION SECRETARY: Patsy Martinez
(909) 384-8902
DIVISION OFFICE: Technical 108
(909) 384-4451
LIAISON COUNSELOR: Wendy Whitney, M.S.
(909) 384-4404

The Water Supply Technology Department offers a curriculum designed to offer pre-service and in-service training in the water supply and reclamation industry. The courses provide technical instructions on dealing with domestic water supply and wastewater treatment and are sequenced to prepare students for the state-licensing exam. The Water Supply Technology Certificate is not equivalent to the State License in Water Supply Technology.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Find and interpret information.
- Set goals for educational, personal and professional development.

WATER SUPPLY TECHNOLOGY ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Water Supply Technology, students must complete the following required courses for the certificate plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

WATER SUPPLY TECHNOLOGY CERTIFICATE

This certificate is designed to prepare students with the necessary knowledge and skills to obtain entry-level employment in the water supply and reclamation industry, including dealing with domestic water supply and wastewater treatment. [Note: the Water Supply Technology Certificate is not equivalent to the State License in Water Supply Technology.] Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
Eighteen (18) units from the following Water Supply Technology Courses	18
WST 140 Water Utilities Distribution I	(3)
WST 141 Water Utilities Distribution II	(3)
WST 142x2 Water Quality and Basic Domestic Water Treatment	(3)
WST 143 Advanced Domestic Water Treatment	(3)
WST 144 Cross Connection Control	(3)
WST 145 Backflow Prevention Devices	(3)
WST 146 Wastewater Treatment Operations I	(3)
WST 147 Wastewater Treatment Operations II	(3)
TOTAL UNITS:	18

COURSES OFFERED BY THE DEPARTMENT OF WATER SUPPLY TECHNOLOGY:

WST 010x2
TEST REVIEW FOR WATER DISTRIBUTION OPERATORS D1 – D2 **.50 UNIT**

PREREQUISITE: None.
LECTURE: .50 hours per week.
 Review information for the California Department of Health Services Operator examination D1 and D2. The review topics include expected range of knowledge required by the DHS for Water Distribution Operators at level D1 and D2 such as math formulas, distribution system operation, disinfection and safety. This course may be taken twice.
Associate Degree Applicable

WST 020x2
TEST REVIEW FOR WATER TREATMENT T1 – T2 **.50 UNIT**

PREREQUISITE: None.
LECTURE: .50 hours per week.
 Review information for the California Department of Health Services Treatment Operator examination T1 and T2. The review topics include expected range of knowledge required by the DHS for Water Treatment Operators at level T1 and T2 such as math formulas, conventional treatment techniques, flocculation, sedimentation, filtration, and system pressures.
Associate Degree Applicable

WST 140
WATER UTILITIES DISTRIBUTION I **3 UNITS**

PREREQUISITE: None.
LECTURE: 3 hours per week.
 A general introduction to the principles and practice of hydraulics and water quality in the field of water supply distribution. Prepares students for the Department of Health Services (DHS) Grade I exam.
Associate Degree Applicable
Course credit transfers to CSU.

WST 141
WATER UTILITIES DISTRIBUTION II **3 UNITS**

PREREQUISITE: WST 140.
LECTURE: 3 hours per week.
 Operation and maintenance of water distribution systems.
Associate Degree Applicable
Course credit transfers to CSU.

WST 142x2
WATER QUALITY AND BASIC DOMESTIC WATER TREATMENT **3 UNITS**

PREREQUISITE: None.
LECTURE: 3 hours per week.
 Basic knowledge of water quality and domestic water treatment theory and practice. Prepares students for California State certification examinations for Grade I and II Operator's Level. This course may be taken twice.
Associate Degree Applicable
Course credit transfers to CSU.

WST 143
ADVANCED DOMESTIC WATER TREATMENT **3 UNITS**

PREREQUISITE: WST 142x2.
LECTURE: 3 hours per week.
 Advanced study of water treatment methods and techniques used to supply water for domestic purposes. Prepares students for California Department of Health Certification as a Water Treatment Operator for Grade Level III and IV.
Associate Degree Applicable
Course credit transfers to CSU.

WST 144
CROSS-CONNECTION CONTROL **3 UNITS**

PREREQUISITE: None.
LECTURE: 3 hours per week.
 Intricacies of administering a cross-connection program and determining appropriate backflow prevention alternatives for protecting the drinking water system. Instruction toward certificate as a cross-connection control program specialist.
Associate Degree Applicable
Course credit transfers to CSU.

WST 145
BACKFLOW PREVENTION DEVICES **3 UNITS**

PREREQUISITE: WST 144.
LECTURE: 2.50 hours per week and
LABORATORY: 1.50 hours per week.
 Concentrated training in recognition and abatement of cross-connection in water supply and plumbing systems. Hands-on backflow prevention device testing procedures. Instruction toward certificate as a backflow prevention device tester.
Associate Degree Applicable
Course credit transfers to CSU.

WST 146
WASTEWATER TREATMENT OPERATIONS I **3 UNITS**

PREREQUISITE: None.
LECTURE: 3 hours per week.
 Fundamentals of treatment plants including arithmetic, basic chemistry and biology, treatment and disposal methods and plant operations. Underlying principles, unit processors, available equipment and most commonly used current wastewater treatment processes. Prepares students for State Certification examinations for Grade I and Grade II operator certificate.
Associate Degree Applicable
Course credit transfers to CSU.

**WST 147
WASTEWATER TREATMENT OPERATIONS II** **3 UNITS**

**PREREQUISITE: WST 146.
LECTURE: 3 hours per week.**

In-depth review of the operation of wastewater treatment facilities with emphasis on how the municipal water treatment plant works to protect the environment and the health and welfare of the community. Prepares students for the State of California examinations for Grade III and IV operator certificate.

*Associate Degree Applicable
Course credit transfers to CSU.*

WELDING TECHNOLOGY

DIVISION: Applied Technology & Transportation
 DIVISION DEAN: Thomas Bauman, M.S., P.E.
 DEPARTMENT HEAD: William Kastner, M.S.
 Technical 108
 (909) 384-8290
 OTHER FACULTY: Jesus Galaviz, A.S.
 DIVISION SECRETARY: Patsy Martinez
 (909) 384-8902
 DIVISION OFFICE: Technical 108
 (909) 384-4451
 LIAISON COUNSELOR: Wendy Whitney, M.S.
 (909) 384-4404

The Welding Technology curriculum is designed to provide students with the knowledge and skills necessary to pass a written and performance test for the Department of Building and Safety of Los Angeles or San Bernardino.

The written test is administered by the Los Angeles Department of Building and Safety. It is necessary for students to apply for testing at the Department of Building and Safety, Room 495, License Division, Los Angeles City Hall. The fee is \$54, plus \$64.80 upon successfully passing the exam.

San Bernardino Valley College is a test center for the performance certification test. The structural (2-plate test) fee is \$90 and the light gauge (4-plate test) is \$100. These fees entitle applicants to a maximum of 8 hours lab practice prior to test. Retest fee is \$50 for each repeat plate.

Persons applying for welding positions in large industrial companies must have a Certification Card before contacting the employment office.

Students may pursue either Associate of Science degrees or certificates in Welding Technology or Consolidated Welding.

**WELDING TECHNOLOGY
ASSOCIATE OF SCIENCE DEGREE**

To graduate with a specialization in Welding Technology, students must complete all requirements for one of the following certificates (General Welding or Consolidated Welding) plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

WELDING TECHNOLOGY CERTIFICATES

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

1. GENERAL WELDING CERTIFICATE

This certificate is designed to provide students with an understanding of the terminology, concepts, procedures and skills used in the welding field to equip them with the fundamental skills necessary for entry- and intermediate-level employment.

Students must complete all of the REQUIRED COURSES plus ONE of the RESTRICTED ELECTIVES courses.

REQUIRED COURSES:	UNITS
TECALC 950 Shop Calculations or higher level math course	3
WELD 123 Oxy-Acetylene Welding	3
WELD 145 Shielded Metal Arc Welding	3
WELD 146 Intermediate Arc Welding	3
WELD 060 Layout Fitter I	3
WELD 066A Los Angeles City Welding Cert	3
WELD 070x4 Tig Welding	1
WELD 077x4 Continuous Wire Welding	1
WELD 127 Strength of Materials Testing: Destructive	3
TOTAL UNITS:	23

Select one of the following Restricted Electives Courses:	UNITS
WELD 061 Layout Fitter II or WELD 065A Welding Inspection Visual or WELD 128 Strength of Materials Testing: Non-Destructive	3 (4) (3)

2. CONSOLIDATED WELDING CERTIFICATE

This certificate is designed to provide students with comprehensive training in all welding areas including oxy-acetylene, SMAW, GMAW, FCAW and GTAW. Upon completing this certificate, students will be certified in accordance with the American Welding Society standards and have an understanding of the terminology, concepts and skills necessary to secure a job in the welding profession.

Students must complete a minimum of 26 units in any combination of the following welding courses.

REQUIRED COURSES:	UNITS
WELD 062 Consolidated Welding or WELD 063 Consolidated Welding or WELD 064x4 Consolidated Welding	2-13 2-13 2-13
WELD 127 Strength of Materials Testing: Destructive	3
TOTAL UNITS:	29

3. FLUX CORE ARC WELDING (FCAW) CERTIFICATE

This certificate is designed to provide students with training in the semi-automatic welding process. **Students must complete all the REQUIRED and one of the RESTRICTED Elective courses plus pass the FCAW Welding Certification either through the City of San**

Bernardino or Los Angeles. The practical welding certification test for both cities is administered by SBVC Welding Department.

REQUIRED COURSES:		UNITS
WELD 145	Shielded Metal Arc Welding	3
WELD 060	Layout Fitter I	3
WELD 077x4	Continuous Wire Welding	1

RESTRICTED ELECTIVE COURSES:		UNITS
WELD 061	Layout Fitter II	3
or		
WELD 065A	Welding Inspection Visual	(4)
or		
WELD 128	Strength of Materials Testing: Non-Destructive	(3)

TOTAL UNITS: 10-11

4. GAS METAL ARC WELDING (GMAW) CERTIFICATE

This certificate is designed to provide students with training in the MIG welding process. **Students must complete all the REQUIRED Courses plus pass the GMAW Welding Certification either through the City of San Bernardino or Los Angeles. The practical welding certification test for both cities is administered by SBVC Welding Department.**

REQUIRED COURSES:		UNITS
WELD 123	Oxy-Acetylene Welding	3
WELD 145	Shielded Metal Arc Welding	3
WELD 077x4	Continuous Wire Welding	1

TOTAL UNITS: 7

NOTE: Students completing all course work but not finishing the GMAW Certification may proceed to the next certificate. In order to be awarded the certificate, both course work and certification must be completed.

5. GAS TUNGSTEN ARC WELDING (GTAW) CERTIFICATE

This certificate is designed to prepare students with training in the TIG or Heli-Arc welding processes. **Students must complete all the REQUIRED and one of the RESTRICTED Elective courses plus pass the GTAW Welding Certificate in either aluminum or stainless steel. This certification can be issued in conjunction with SBVC and the City of San Bernardino.**

REQUIRED COURSES:		UNITS
WELD 123	Oxy-Acetylene Welding	3
WELD 145	Shielded Metal Arc Welding	3
WELD 070x4	Tig Welding	1

RESTRICTED ELECTIVE COURSES:		UNITS
WELD 065A	Welding Inspection Visual	4
or		
WELD 067A	Structural Steel Special Inspection (ICBO)	(2)
or		
WELD 128	Strength of Materials Testing: Non-Destructive	(3)

TOTAL UNITS: 9-11

6. SHIELDED METAL ARC WELDING (SMAW) CERTIFICATE

This certificate is designed to prepare students with the training in SMAW or (STICK) welding process, electrode identification, welding symbols, and joint design. **Students must complete all the REQUIRED Courses plus pass the SMAW Welding Certification either through the City of San Bernardino or Los Angeles. The practical welding certification test for both cities is administered by SBVC Welding Department.**

REQUIRED COURSES:		UNITS
WELD 123	Oxy-Acetylene Welding	3
WELD 145	Shielded Metal Arc Welding	3
WELD 146	Intermediate Arc Welding	3

TOTAL UNITS: 9

NOTE: Students completing all course work but not finishing the SMAW Certification may proceed to the next certificate. In order to be awarded the certificate, both course work and certification must be completed.

7. WELDING INSPECTION TECHNOLOGY CERTIFICATE

This certificate is designed to prepare students for the AWS and/or ICBO Welding Inspector examination.

REQUIRED COURSES:		UNITS
WELD 065A	Welding Inspection Visual	4
WELC 067A	Structural Steel Special Inspection (ICBO)	2
WELD 127	Strength of Materials Testing: Destructive	3
WELD 128	Strength of Materials Testing: Non-Destructive	3
WELD 145	Shielded Metal Arc Welding	3

TOTAL UNITS: 15

COURSES OFFERED BY THE DEPARTMENT OF WELDING TECHNOLOGY:

**WELD 060
LAYOUT FITTER I 3 UNITS**

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: WELD 145.

LECTURE: 2 hours per week and

LABORATORY: 3.5 hours per week.

Designed to provide the welding student with the training needed to read blueprints and to make the welding connections to steel beams and columns. Topics include: interpreting a structural shop blueprint, understanding the abbreviations, symbols and terms used on a shop drawing; specifying and coding of various grades of steel; use of specialized tools and templates.

Associate Degree Applicable

WELD 061
LAYOUT FITTER II **3 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: WELD 060 or WELD 145.
LECTURE: 2 hours per week and
LABORATORY: 3.5 hours per week.
Designed to provide the intermediate to advance welding student with the skills needed by craftsmen in the fabrication industry. Topics include: properties of structural steel; fitting up; railing and balusters; steel stair buildings and stringers.
Associate Degree Applicable

WELD 062
CONSOLIDATED WELDING **2-13 UNITS**
PREREQUISITE: None.
LECTURE: 1 - 5 hours per week and
LABORATORY: 3 - 24 hours per week.
Oxy-acetylene welding and cutting, brazing and arc welding in all positions. Welding theory, electrode identification, metals, blueprint reading, technical math, and a strong emphasis on safety.
Associate Degree Applicable

WELD 063
CONSOLIDATED WELDING **2-13 UNITS**
PREREQUISITE: None.
LECTURE: 1 - 5 hours per week and
LABORATORY: 3 - 24 hours per week.
Arc welding in all positions. MIG and flux core welding in all positions. TIG welding on various types of materials, welding theory, electrode identification, weld symbols, blue-print reading, technical math, and a special emphasis on safety.
Associate Degree Applicable

WELD 064x4
CONSOLIDATED WELDING **2-13 UNITS**
PREREQUISITE: None.
LECTURE: 1- 5 hours per week and
LABORATORY: 3 - 24 hours per week.
A consolidation of all the welding processes including oxy-acetylene welding on ferrous and non-ferrous metals, cutting and brazing, arc welding in all positions, MIG and TIG welding, welding theory, technical math, blueprint reading, metals, electrode identification. Special emphasis on safety. This course may be taken four times.
Associate Degree Applicable

WELD 065A
WELDING INSPECTION VISUAL **4 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: WELD 145.
LECTURE: 4 hours per week.
Designed to prepare students for the certified welding inspector examination offered by the American Welding Society (AWS). Focus on welding process, welding procedures, code specifications and standards covering topics in materials and their limitations of weld testing, as well as record keeping and report preparations. **FIVE YEARS OR MORE EXPERIENCE IN WELDING IS REQUIRED PRIOR TO TESTING.**
Associate Degree Applicable

WELD 066A
LOS ANGELES CITY WELDING CERTIFICATION **3 UNITS**
PREREQUISITE: None.
DEPARTMENTAL ADVISORY: WELD 145.
LECTURE: 3 hours per week.
This course is designed to prepare students for the written Structural Steel examination offered by the Department of Building and Safety in the City of Los Angeles with focus on the codes used in the structural steel industry.
Associate Degree Applicable

WELD 067A
STRUCTURAL STEEL SPECIAL INSPECTION (ICBO) **2 UNITS**
PREREQUISITES: WELD 145 and WELD 060 or WELD 061.
LECTURE: 1 hour per week and
LABORATORY: 3 hours per week.
Designed to prepare students for the International Conference of Building Officials (ICBO) Inspector Certifications examinations. Provide training for employment in the quality control or construction inspection industry. Topics include a review of the technical aspects on inspection and quality control in the area of structural steel and welding preparation, materials applications, plan reading, and related codes.
Associate Degree Applicable

WELD 070x4
TIG WELDING **1 UNIT**
PREREQUISITES: WELD 123 and WELD 145.
LABORATORY: 3 hours per week.
This is a practical application of welding techniques used in the Gas Tungsten Arc welding process. Welding safety, equipment and joint construction on aluminum and other ferrous metals are stressed. Focus is on the welding procedures for butt, corner, tee and lap joints to include voltage amperage, electrodes and shielding gas requirements. The course may be taken four times.
Associate Degree Applicable

WELD 077x4
CONTINUOUS WIRE WELDING **1 UNIT**
PREREQUISITE: Arc Welding.
LABORATORY: 3 hours per week.
The techniques and methods of continuous wire welding with and without gas shields in various positions and on various thicknesses of material. This course may be taken four times.
Associate Degree Applicable

WELD 123
OXY-ACETYLENE WELDING **3 UNITS**
PREREQUISITE: None.
LECTURE: 1 hour per week and
LABORATORY: 5 hours per week.
Intensive training in oxy-acetylene welding, which includes plate and sheet metal welding, brazing and soldering. The fundamentals of welding equipment, and related subjects with a strong emphasis on safety.
Associate Degree Applicable
Course credit transfers to CSU.

WELD 127
STRENGTH OF MATERIALS TESTING: DESTRUCTIVE 3 UNITS

PREREQUISITE: None.

LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.

Instruction in destructive testing techniques, using equipment such as tensile testing machines, hardness testers and impact testers. Learning the molecular structure of metal and how it varies under testing.

Applicable to Associate Degree
Course credit transfers to CSU.

WELD 128
STRENGTH OF MATERIALS TESTING: 3 UNITS
NON-DESTRUCTIVE

PREREQUISITE: None.

DEPARTMENTAL ADVISORY: WELD 127.

LECTURE: 2 hours per week and
LABORATORY: 2 hours per week.

Instruction in non-destructive testing techniques such as dye, penetrants, eddy current, magnetic particles, and ultra-sonic tests.

Applicable to Associate Degree
Course credit transfers to CSU.

WELD 145
SHIELDED METAL ARC WELDING 3 UNITS
PREREQUISITE: None.

LECTURE: 1 hour per week and
LABORATORY: 5 hours per week.

Training and skills for arc welding on plate and various metals. The theory of arc welding, weld symbols, electrode identification and related subjects.

Associate Degree Applicable
Course credit transfers to CSU.

WELD 146
INTERMEDIATE ARC WELDING 3 UNITS
PREREQUISITE: WELD 145.

LECTURE: 1 hour per week and
LABORATORY: 5 hours per week.

Continuation of training and development of skills for arc welding on plate, pipe, and sheet metal. Continuing theory of welding, electrode usage, weld symbols and code information.

Associate Degree Applicable
Course credit transfers to CSU.

WELD 147
INTERMEDIATE SHIELDED METAL ARC WELDING 3 UNITS

PREREQUISITE: WELD 145.

LECTURE: 1 hour per week and
LABORATORY: 5 hours per week.

Progressing in the art of welding on plate, pipe, and sheet metal. Continuing theory of welding, electrode usage, weld symbols and code information.

Associate Degree Applicable
Course credit transfers to CSU.

WELD 198
WELDING WORK EXPERIENCE 1-4 UNITS
PREREQUISITE: None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

Associate Degree Applicable
Course credit transfers to CSU for elective credit only.

WORD PROCESSING

See courses in the department of
COMPUTER INFORMATION TECHNOLOGY

WORK EXPERIENCE

OCCUPATIONAL COOPERATIVE WORK EXPERIENCE

Work experience education credit can be earned in each of the occupational disciplines. (See appropriate program area under course number 198 for specific information.)

DIVISION: Business and Information Technology
DIVISION DEAN: Margaret Ortiz, M.A.
DEPARTMENT HEAD: Dan Angelo, M.H.R.O.D.
Business 100
(909) 384-8568
DEPARTMENT SECRETARY: To Be Announced
DEPARTMENT OFFICE Business 100
(909) 384-8685
LIAISON COUNSELOR: André Wooten, M.A.
(909) 384-4404

WKEXP 099
GENERAL WORK EXPERIENCE 1-3 UNITS
PREREQUISITE: None.

WORK EXPERIENCE: 5-15 hours per week.

Supervised general work experience education to assist students in acquiring desirable work habits, career awareness, and job attitudes consistent with contemporary community standards.

Associate Degree Applicable

COOPERATIVE WORK EXPERIENCE

The concept of issuing college credit for work experience is based on the premise that a student with well defined job-oriented objectives will find his/her work an educational experience. To be effective it must be approached cooperatively and with enthusiasm by the student, the employer, and the college coordinator. The student will gain college credit, a new appreciation of the responsibilities he/she has to his/her employer, greater awareness and improved job skills.

There are two classifications of Cooperative Work Experience Education at San Bernardino Valley College.

- In *Occupational Cooperative Work Experience* students may earn four units per semester for a maximum of sixteen units.

- In *General Cooperative Work Experience* students may earn three units per semester with a maximum of six allowable during their college career; and they need not be enrolled in a related course. Seventy-five hours of paid work experience (or 60 hours volunteer work) equal one unit of college credit.

San Bernardino Valley College offers two formats for Cooperative Work Experience:

- In *Parallel Format* students take a Cooperative Work Experience class concurrently with other college courses.
- In *Alternate Format* students alternate between taking a Cooperative Work Experience class one semester and other college courses the previous and/or following semesters.

Units earned through Work Experience do not apply toward units in a major unless such courses are specifically required for a degree in that department. However, course credit earned through work experience can apply as elective units in any associate degree. Refer to the specific department section of this catalog for a list of specific courses required for a major.

We currently offer Cooperative Work Experience in the following areas:

Administration of Justice
Aeronautics
Air Travel
Art
Automotive
Business Administration
Child Development
Computer Information Technology
Computer Science
Electronics
Family & Consumer Science
Human Services
Inspection
Library
Machine Technology
Nursing
Physical Education
Radio/Television/Film
Refrigeration
Restaurant Management
Welding
General Work Experience

For information visit the Work Experience Office in Business 100 or call (909) 384-4407.

PART V – ADMINISTRATION AND FACULTY

ADMINISTRATION

President: Denise Whittaker, M.A.
Vice President, Administrative Services: Michael Perez, M.B.A.
Vice President, Instruction: Linda Stevens, Ed.D.
Interim Vice President, Student Services: Kay Ragan, Ed.D.
Dean, Applied Technology & Transportation: Thomas Bauman, M.S., P.E.
Dean, Business & Information Technology: Margaret Ortiz, M.A.
Dean, Career College, CalWORKs & Workforce Development: Zelma Russ, Ed.D.
Administrative Dean, Criminal Justice & Public Safety: Gloria Fisher, J.D.
Dean, Counseling and Matriculation: Marco Cota, M.A.
Dean, Institutional Advancement; Executive Director, Foundation: Gary Kelly, M.A.
Dean, Extended Day/Vocational Education: Queen Hamilton, Ed.D.
Dean, Health Science: Marilyn Johnson, B.S., M.N.
Dean, Humanities: Marjorie Price, M.A., M.Ed.
Dean, Learning Resources: Marie Mestas, M.L.S.
Dean, Physical Education/Athletics: Corene Schwartz, Ed.D.
Dean, Research, Planning & Development: Lorraine Troy Sheffield, Ed.D.
Dean, Science & Math: Haragewin Kinde, Ed.D.
Dean, Social Science & Human Development: Janice Noble, Ph.D.
Dean, Student Development: To Be Announced
Director, Admissions & Records: Helena Johnson, M.Ed.
Director, Athletics: Rudolph Washington, M.A.
Director, Child Development Center: Debra Ward, M.S.
Director, Disabled Students Programs and Services: Rebecca Warren-Marlatt, M.A.

Director, Extended Opportunity Programs and Services: Frank Dunn, M.A.
Director, Financial Aid: Nancy Davis, M.S.
Director, KVCR TV/FM: Larry Cicalone, M.B.A.
Director, Marketing and Public Relations: Paul Rubalcaba, B.A.
Director, Student Health Services: Elaine Akers, P.H.N., M.S.N.
Director, Student Life: Nikki Schaper, M.A.
Director, Transportation: Kevin J. Anderson, M.B.A.
Coordinator, Transfer & Career Services Center: Diana Rodriguez, M.B.A, M.A.
Coordinator, Matriculation: Gilbert Maez, B.A., M.S.
Coordinator, STAR Program: Kathy Kafela, M.D.
Cafeteria Manager: Raul Martinez

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