

Taking Classes

Choosing Classes

The basic requirements for achieving a Degree or Certificate in a specific discipline are noted in the following "List of Courses." Some disciplines provide a sample course sequence that suggests how to schedule the classes to make the most of a student's time on campus. For information about when each course is offered, consult the current semester's Schedule of Classes, which is available on campus about five weeks prior to the start of each semester and online at www.moorparkcollege.edu.

Occasionally there may be changes concerning course numbers, titles, units of credit, prerequisites, hours, or course descriptions made after publication of the Catalog. Efforts will be made through the Schedules of Classes, public media, and at the time of registration, to notify students of any changes other than as described in the Catalog.

All degree applicable courses listed in the Catalog meet major, general education, or elective credit requirements for approved degree or certificate programs.

Understanding the Course Descriptions

The following "List of Courses" provides a variety of information about each specific class: the unit value of the course, the number of hours the course meets, the prerequisites and corequisites, and the transfer status.

Transfer Details: Each course description explains the course's specific transfer status to the California State University (CSU) and/or the University of California (UC) systems. The course may be accepted for credit by the CSU system only, by both the CSU and UC systems, or by neither system. If no transfer status information follows a course description, that course is not acceptable for credit at any of the California public four-year institutions and is probably not accepted at private or out-of-state institutions either. For some courses, the UC system grants limited credit, and an explanation of that limitation is provided. If you have any questions, talk to a counselor or explore a range of online information available in the Career Transfer Center (805) 378-1536, located in the Administration Building.

Careers: To explore specific career options, check the software and online resources available in the Career Transfer Center (805) 378-1536.



List of Courses

Accounting

See Courses in Business

Assistive Computer Technology

See Courses in Learning Skills

Anatomy

See Courses in Biological Sciences

Animal Science

The Animal Science curriculum offers a basic understanding of animal health, nutrition, anatomy/physiology, behavior, diversity and conservation. America's Teaching Zoo provides a laboratory experience, focusing primarily on non-domestic animals. The Animal Science courses are open to all students but are recommended for those interested in the Exotic Animal Training and Management (EATM) Program or any other career in the animal field. Many of these Animal Science courses are required for the EATM Associate in Science degree and may be completed prior to program admission. Refer to Exotic Animal Training and Management later in this section.

Dean

Lori Bennett, Phone (805) 378-1515

Full Time Faculty

Gary Wilson, Cynthia Stringfield, Brenda Woodhouse

Counselor

Chuck Brinkman, Donna Proske-Allyn, Danita Redd

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of support services available in the Career Transfer Center located in the Administration Building, (805)378-1536. Transfer students interested in specializing in Animal Science who wish to qualify for an Associate in Arts Degree could explore Biology or Environmental Studies as a possible major. See General Education Degree Requirements and Transfer Information.

Animal Science Courses

ANSC M01 – 3 units

Introduction to Animal Science

Prerequisites: None

Class Hours: 3 lecture

Surveys the principles of animal science and the interrelationships of animals and humankind. Introduces basic principles of animal biology, including genetics, anatomy, reproduction, nutrition, animal health and disease, veterinary care, animal rights, and animal behavior. Examines the concepts of companion animals, domestic animals, non-domestic animals, and animal training. Explores employment and career opportunities in the animal industry. Applies to Associate Degree. Transfer credit: CSU; UC (under review)

ANSC M02 – 2 Units

Animal Health and Safety

Prerequisites: None

Class Hours: 2 lecture

Introduces the health and safety issues associated with keeping animals in captivity. Presents the essentials of a preventative medicine program, emphasizing procedures for proper hygiene, quarantine, vaccinations, and safety. Addresses the safety of the animal keeper/handler with a consideration of zoonosis. Applies to Associate Degree.

ANSC M03 – 2 Units**Animal Nutrition**

Prerequisites: ANSC M02

Class Hours: 2 lecture

Provides a basic understanding of those factors relating to the feeding and nutritional needs of domestic and non-domestic animals in captivity as well as in the wild. Applies to Associate Degree. Transfer credit: CSU

ANSC M04 – 3 Units**Animal Behavior**

Prerequisites: None

Class Hours: 3 lecture

Introduction to the study of animal behavior with an emphasis on learning theory, especially classical and operant conditioning. It is designed to provide the student with an understanding of how to apply the concepts of ethology and behavior modification to the maintenance and training of animals in captivity. (Same course as PSY M12). Applies to Associate Degree. Transfer credit: CSU

ANSC M04L – 0.5 Unit**Animal Behavior Lab**

Prerequisites: None

Corequisite: ANSC M04 or PSY M12

Class Hours: 1.5 lab

Consists of laboratory activities giving the student opportunities to develop skills in behavior modification and observational research. Each student will be required to train a rat and conduct an observational research project on captive mammals. (Same course as PSY M12L). Applies to Associate Degree. Transfer credit: CSU

ANSC M05 – 2 Units**Zoo Horticulture**

Prerequisites: None

Corequisite: ANSC M05L

Class Hours: 2 lecture

Introduces the student to soils; plant growth; weed, insect, and disease control; irrigation and fertilization principles; identification and uses of plants; planting and care of lawns, ground covers, flowers, trees, and shrubs including proper placement, pruning and training. Stresses the relationship of plants and animals, including plant toxicity risks relating to a zoo facility. Applies to Associate Degree.

ANSC M05L – 1 Unit**Zoo Horticulture Lab**

Prerequisites: Completion of or concurrent enrollment in ANSC M05

Class Hours: 3 lab

Applies horticulture principles and concepts regarding soils; plant growth; weed, insect, disease control; and irrigation and fertilization. Practices the planting and care of lawns, ground covers, flowers, trees, and shrubs including proper pruning and training. Explores the relationship between plants and animals. Applies to Associate Degree.

ANSC M06 – 3 Units**Animal Anatomy/Physiology**

Prerequisites: None

Class Hours: 3 lecture

An Introduction to the science of veterinary medicine as it applies to mammals, birds, and reptiles. Presents a practical system-by-system approach to the basic structure (anatomy) and function (physiology) of the previously mentioned groups. Applies to Associate Degree. Transfer credit: CSU

ANSC M07 – 3 Units**Animal Diversity**

Prerequisites: None

Corequisite: ANSC M07L

Class Hours: 3 lecture

Introduces survey of invertebrate and vertebrate animals, both terrestrial and marine. Includes classification, general characteristics, adaptations, animal recognition, evolutionary history, and basic concepts of ecology and conservation. Applies to Associate Degree. Transfer credit: CSU

ANSC M07L – 0.5 Unit**Animal Diversity Lab**

Prerequisites: None

Corequisite: ANSC M07

Class Hours: 1.5 lab

Introductory laboratory course surveys the invertebrate and vertebrate animals, both terrestrial and marine. The focus will be on animal recognition, general characteristics and behavior through animal observations, Observations will be made of live animals in Americas Teaching Zoo as well as on video. Additional species will be presented in photographic slides. Applies to Associate Degree. Transfer credit: CSU

ANSC M08 – 3 Units**Wildlife Conservation**

Prerequisites: None

Class Hours: 3 lecture

Designed to assist students in developing awareness, knowledge, skills, and commitment, that will result in informed decisions, responsible behavior and constructive actions concerning wildlife and the environment. Topics will include awareness and appreciation of wildlife, human values and wildlife, wildlife conservation, cultural and social interaction with wildlife, wildlife issues and responsible human actions. Applies to Associate Degree.

ANSC M10 – 1 Unit**Environmental Enrichment**

Prerequisites: None

Recommended Prep: ANSC M04L or PSY M12L

Class Hours: 1 lecture

Design and implementation of a program of environmental enrichment for a collection of captive animals. A variety of enrichment techniques will be presented as well as methods for the evaluation of their effectiveness. Applies to Associate Degree. Transfer credit: CSU

ANSC M10L – 0.5 Unit**Environmental Enrichment Lab**

Prerequisites: None

Corequisite: ANSC M10

Recommended Prep: None

Class Hours: 1.5 lab

Design, implementation, and evaluation of environmental enrichment for a group of captive animals. Students will present the results of these projects to the class and zoo visitors. Applies to Associate Degree. Transfer credit: CSU

ANSC M11 – 1 Unit**Avian and Reptile Care**

Prerequisites: None

Class Hours: 1 lecture

The anatomy, physiology, husbandry and veterinary care of Avian and Reptilian species. (Formerly ANSC M60A) Applies to Associate Degree.

**ANSC M30 – 2 Units
Ethical and Legal Issues**

Prerequisites: None
Class Hours: 2 lecture

Reviews the ethical issues involving animal ownership and use, i.e., research, education, food production, exhibition, and as companions; major animal rights groups; the legal issues relating to animal care and treatment; and regulatory agencies from the local to international level. Applies to Associate Degree.

Developed topics include:

**ANSC M60B – 1 Unit
Primate Behavior**

Prerequisites: None
Class Hours: 1 lecture

Serves as an Introduction to primate behavior and its application to successful handling and training of primates. Applies to Associate Degree. Transfer credit: Determined by transfer institution.

**ANSC M60BL – 1 Unit
Primate Behavior Lab**

Prerequisites: None
Class Hours: 3 lab

Observation and analysis of primate behavior at America's Teaching Zoo. Activities include the application and evaluation of operant conditioning and environmental enrichment techniques specific to primates. May be taken for a total of three (3) times for credit. Applies to Associate Degree. Transfer credit: determined by transfer institution.

Anthropology

Training in anthropology will prepare one for any career that involves working on the interface between two cultures. Specialized preparation in this subject can lead to some of the world's most interesting work; the study of existing life ways, archaeological excavation and interpretation, primate behavior, and social research into economics, politics, law, religion, art and music.

Dean

Kim Hoffmans, Phone (805) 378-1459

Full-time Faculty

John Baker, Andrew Kinkella

Counselors

Anitra Evans, Michael Johnson, Ofelia Romero-Motlagh

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building (805) 378-1536. See General Education Degree Requirements and Transfer Information.

Degree in Anthropology

To earn an Associate in Arts Degree with a major in Anthropology, students complete 22 specified units, plus General Education Degree Requirements (minimum total = 60 units). These major requirements cover all four core fields of Anthropology as well as topical and area courses of the students' choice, preparing students for success at their transfer institution.

In addition to General Education Degree Requirements, complete the following:

Required Courses.....	Units
ANTH M01.....Biological Anthropology	3.0
ANTH M01L.....Physical Anthropology Lab.....	1.0
ANTH M02.....Cultural Anthropology.....	3.0
ANTH M03.....Archaeology.....	3.0
ANTH M08.....Culture and Communication	3.0
Units from List of ELECTIVE COURSES.....	9.0
TOTAL	22.0

Elective Courses: Choose 9 Units

ANTH M04.....Chicano Culture (co-listed as CHST M02	3.0
ANTH M05.....Archaeological Field Methods.....	3.0
ANTH M06.....Introduction to Native American Studies	3.0
ANTH M07.....Peoples and Cultures of the World.....	3.0
ANTH M09.....Anthropology of Women	3.0
ANTH M10.....Archaeological Reconnaissance.....	3.0
ANTH M11.....The Anthropology of Magic, Witchcraft, and Religion	3.0
ANTH M12.....Archaeological Laboratory Procedures	3.0
ANTH M22A/B.....Independent Studies in Anthropology*	0.5-3.0
ANTH M60C.....Indians of California.....	3.0
ANTH M60L.....The Chumash and their Neighbors.....	3.0
ANTH M60J.....Egyptology: Archaeology of the Land of the Pharaohs	3.0
ANTH M60K.....Mysteries of the Ancient Maya.....	3.0
ANTH M60R.....Anthropological Research Methods	3.0
ANTH M60S.....Introductory Archaeological Field Methods	3.0
ANTH M80.....Internship in Anthropology.....	1.0-4.0

*May be taken for a maximum of 3.0 units to fulfill the requirements of the A.A. Degree.

Degree in Archaeology

To earn an Associate in Arts Degree with a major in Archaeology, students complete 37 specified units, plus General Education Degree Requirements. These major requirements optimize preparation for upper division course work for advanced degrees in Archaeology offered by four-year institutions. Since the course work in Archaeology is sequential, students may spend less time earning an Associate and/or Bachelor's Degree by deferring some of the university general education requirements until their junior and senior years and by giving priority to the requirements for a major in archaeology. In addition, earning this degree suggests an achievement of technical skills that may be helpful in seeking immediate employment.

This specialized program in Archaeology is NOT intended to be used as a license for independent unsupervised archaeological research. Rather it is designed to introduce students to archaeological research, providing opportunities to actively participate in supervised archaeological research.

In addition to General Education Degree Requirements, complete the following:

Required Courses.....	Units
ANTH M01.....Biological Anthropology	3.0
ANTH M01L.....Physical Anthropology Lab.....	1.0
ANTH M02.....Cultural Anthropology.....	3.0
ANTH M03.....Archaeology.....	3.0
ANTH M05*.....Archaeological Field Methods.....	3.0
ANTH M10*.....Archaeological Reconnaissance.....	3.0
ANTH M12*.....Archaeological Laboratory Procedures	3.0
Units from List of RECOMMENDED COURSES	18.0
TOTAL	37.0

Recommended Courses: Choose 18 Units

ANTH M60C.....Indians of California.....	3.0
ANTH M60L.....The Chumash and Their Neighbors.....	3.0
ANTH M60R**Anthropological Research Methods	3.0
ANTH M60S**Intro to Archaeological Field Methods Supervision.....	3.0
BIOL M05.....Field Biology – Natural History of CA.....	3.0
GEOL M04.....Mineralogy.....	4.0
GEOL M21.....Geology of California.....	3.0
PHOT M01A.....Beginning Photography.....	3.0

*Can be repeated as part of chosen 18-units and still count toward total

**Can be repeated twice and count toward total

Anthropology Courses

ANTH M01 – 3 Units

Biological Anthropology

Prerequisites: None

Class Hours: 3 lecture

Introduces the scientific method as used in the study of humans as biological organisms. Focuses on human evolution and diversity, including genetics, evolution, primatology, paleoanthropology, human variation, and biocultural adaptation. Students completing this course will understand how humans relate to other living organisms, and how the tools of science are used to reconstruct the past history of our species. Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 45 contact hours. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M01H – 3 Units

Honors: Biological Anthropology

Prerequisites: None

Class Hours: 3 lecture

Introduces the scientific method as used in the study of humans as biological organisms. Focuses on human evolution and diversity, including genetics, evolution, primatology, paleoanthropology, human variation, and biocultural adaptation. Students completing this course will understand how humans relate to other living organisms, and how the tools of science are used to reconstruct the past history of our species. Honors work challenges students to be more analytical and creative through expanded assignments, real-world applications and enrichment opportunities. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M01L – 1 Unit

Physical Anthropology Lab

Prerequisites: Completion of or concurrent enrollment in ANTH M01

Class Hours: 3 lab

Provides hands-on understanding of principles of evolution and genetics. Covers comparative vertebrate anatomy, modern and fossil hominids, primatology, variation in modern human populations, medical genetics and adaptability. Introduces molecular biological methods. Applies to Associate Degree. Transfer credit: CSU, UC

ANTH M02 – 3 Units

Cultural Anthropology

Prerequisites: None

Class Hours: 3 lecture

Focuses on basic concepts and methods for analyzing cultural systems, illustrated with examples drawn largely from non-Western societies. Emphasis will be on the structure and evolution of human behavior in all major aspects of culture. Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 45 contact hours. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M03 – 3 Units

Archaeology

Prerequisites: None

Class Hours: 3 lecture

Introduces the history and goals of archaeology, emphasizing methods of interpreting and dating the prehistoric past through the rise of complex societies as seen both in the New World and in Ventura County. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M04 – 3 Units

Chicano Culture

Prerequisites: None

Class Hours: 3 lecture

Focuses on the social and cultural heritage of the Middle American Chicano civilizations from the Spanish conquest to the present, emphasizing contributions in the fine arts, literature, and oral history. (Same course as CHST M02.) Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 45 contact hours. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M05 – 3 Units

Archaeological Field Methods

Prerequisites: Completion of or concurrent enrollment in ANTH M03

Class Hours: 1 lecture, 6 lab

A course in practical hands-on archaeology that is intended for students who desire to extend their existing knowledge of archaeological inquiry. The emphasis of this course will be on actual site excavation and primary sorting and artifactual materials. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC (Maximum credit: one course).

ANTH M06 – 3 Units

Introduction to Native American Studies

Prerequisites: None

Class Hours: 3 lecture

Surveys the origins, development, and attainments of Native Americans within the United States, presented from an anthropological perspective with particular emphasis on "Culture Area Theory". Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M07 – 3 Units

Peoples and Cultures of the World

Prerequisites: None

Class Hours: 3 lecture

Considers the differences between and the commonalities among several human sociocultural groups. A variety of theoretical orientations and topical foci will be utilized. Case studies of individual cultures will be used to discuss these cultures and understand ethnographic methodologies, while comparison of these cultures will provide an Introduction to the cross-cultural perspective. Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 45 contact hours. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M08 – 3 Units **Culture and Communication**

Prerequisites: None

Class Hours: 3 lecture

Introduces the study of communication from an anthropological perspective. Examines the basic components of language, including morphology, phonology, syntax and semantics. Provides students with an overview of how humans interact and communicate using verbal and nonverbal language. Students learn how language both reflects and shapes thought, culture, and power/status.

Exposes students to anthropological theories of language origin, language use, and cultural issues associated with language in cross-cultural contexts. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M09 – 3 Units **Anthropology of Women**

Prerequisites: None

Class Hours: 3 lecture

Explores women's roles, stereotypes and contributions, past and present, drawing examples from traditional and contemporary world cultures and from relationships among gender, kinship, economics, politics, myth and ideology. Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 45 contact hours. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M10 – 3 Units **Archaeological Reconnaissance**

Prerequisites: Completion of or concurrent enrollment in ANTH M03

Class Hours: 1 lecture, 6 lab

A course in the practical application of a specific aspect of archaeological field research: the discovery, evaluation and recording of cultural resources. Students will be introduced to the use of a compass, taught to read and draw a map, evaluate soil and terrain formations, identify plant resources, recognize urban disturbances plus various other specialized data, observing and recording techniques. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU

ANTH M11 – 3 Units **The Anthropology of Magic, Witchcraft and Religion**

Prerequisites: None

Class Hours: 3 lecture

Provides an Introduction to human belief systems around the world and the manners in which anthropology investigates these. Topics include functions and structures of religions, cross-cultural classification of religions, shamanism, religious change, and religious systems in global perspective. Applies to Associate Degree. Transfer credit: CSU; UC.

ANTH M12 – 3 Units **Archaeological Laboratory Procedures**

Prerequisites: ANTH M03

Class Hours: 1 lecture, 6 lab

An actual hands-on experience working with archaeological collections. Students will be taken through initial processing, sorting, washing, stabilizing and final cataloging of an excavation collection. This will be followed by detailed analysis of one aspect of the collection. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC (maximum credit: one course)

ANTH M22A/B – 0.5 to 3 Units **Independent Studies in Anthropology**

Prerequisites: A previous course in Anthropology

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of anthropology through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

ANTH M60A-Z – 1 to 3 Units **Topics in Anthropology**

Prerequisites: To be determined

Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Transfer credit: determined by transfer institution.

Developed topics include:

ANTH M60C – 3 Units **Indians of California**

Prerequisites: None

Class Hours: 3 lecture

Offers a multidimensional look at the aboriginal inhabitants of California before and after European contact. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M60I – 3 Units **The Chumash and Their Neighbors**

Prerequisites: None

Class Hours: 3 lecture

Offers an in-depth look at the Chumash, the major aboriginal population to occupy Ventura County in pre-contact times. Major consideration will be given to their social, political, and economic structure and to their relations with their aboriginal neighbors and the late Spanish Colonial establishments. Applies to Associate Degree. Transfer credit: CSU

ANTH M60J – 3 Units **Egyptology: Archaeology of the Land of the Pharaohs**

Prerequisites: None

Class Hours: 3 lecture

Emphasizes the archaeological contributions for a better understanding of the historical and cultural development of ancient Egypt. Applies to Associate Degree. Transfer credit: CSU; UC

ANTH M60K – 3 Units **Mysteries of the Ancient Maya**

Prerequisites: None

Class Hours: 3 Lecture

Introduces the world of the ancient Maya. Explores Maya origins, agriculture, art, religion, hieroglyphic writing, and the unexplained collapse of the civilization. Applies to Associate Degree. Transfer credit: CSU, UC

ANTH M60R – 3 Units
Anthropological Research Methods

Prerequisites: None
 Class Hours: 1 lecture, 6 lab

Gives students an opportunity to undertake more advanced aspects of anthropological research. Students will be taught to use the tools of research through their explanation and application on actual research projects. The focus of each class will be in one of the major divisions of anthropology, i.e. cultural, physical, archaeology, linguistics or ethnology. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU

ANTH M60S – 3 Units
Introductory Archaeological Field Methods Supervision

Prerequisites: ANTH M03
 Class Hours: 1 lecture, 6 lab

Designed to introduce an advanced student of archaeological field methods to the training and management of small group of people known as a “Pit Crew”. May be taken for a total of four (4) times for credit. Only offered credit/no-credit. Applies to Associate Degree. Transfer credit: CSU

ANTH M80 – 1 to 4 Units
Internship in Anthropology

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.
 Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job experience for students who have completed courses in their major and are ready to apply course materials to the worksite. Faculty and supervisors (mentor teachers) will provide feedback and written evaluations. Students receive one unit of credit for each 60 hours unpaid or 75 hours paid work, and may enroll in up to 8 units a semester with a maximum of 16 total units of any type of work experience education (including Internships, WEXP M10 and WEXP M20). Students enrolling in up to 4 units must be concurrently enrolled in 7 units, including the internship units. Students are required to attend an internship orientation, develop three learning objectives, and complete an internship paper or project. To take this course, contact the Career Transfer Center at (805) 378-1536. May be taken a total of four (4) times for credit, or until the maximum number of work experience units (including internship M80, WEXP M10 and WEXP M20) is earned. Applies to Associate Degree. Transfer credit: CSU

ANTH M95 – 3 Units
Honors in Anthropology: Contemporary Problems in Anthropological Perspective

Prerequisites: ANTH M01 and ANTH M02 (at least one must be completed prior to enrollment; the other must be taken concurrently)
 Class Hours: 3 lecture

Provides an Honors forum for evaluating contemporary human problems using both the biological and the sociocultural perspectives. Examples of problems that may be considered include: overpopulation, environmental degradation, criminality and violence, globalization and culture change, substance use and abuse, and ethnic and religious intolerance. Honors work challenges students to be more analytical and creative through expanded assignments, real-world applications and enrichment opportunities. Applies to Associate Degree. Transfer credit: CSU

Arabic
Career Opportunities

Civil Service, Consulting, Customs, Diplomacy, Education, Health Services, Immigration/Naturalization, Imports/Exports, Intelligence, Law Enforcement, Journalism/Broadcasting, Manufacturing, Linguistics, Sales, Social Work, Translation/Interpretation, and Travel Services.

Dean
 Inajane Nicklas, Phone (805) 378-1443

ARBC M01 – 4 Units
Elementary Arabic I

Prerequisites: None
 Class Hours: 4 lecture, 1 lab as arranged

Introduces modern standard Arabic language, culture, history and people, emphasizing speaking, understanding, reading, and writing skills. Requires individualized work in the language laboratory. Applies to Associate Degree. Transfer credit: CSU; UC

Art

Students who major in the field of art have a variety of opportunities open to them. Choices include careers in teaching, art criticism, journalism, historic preservation, or work as practicing artists in ceramics, painting, sculpture, drawing, commercial art, or photography.

Dean
 Julius Sokenu, Phone (805) 378-1448

Full-time Faculty
 Christine Marx, Cynthia Minet, Gerardo Zucca

Counselors
 Denice Avila, Michael Johnson

Transfer Information
 Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536. See General Education Degree Requirements and Transfer Information.

Degree in Art
 To earn an Associate in Arts Degree with a major in Art, students complete 33 specified units, plus General Education Degree Requirements. This program provides students with a curriculum design that is preparatory for transfer to most universities and professional schools of art.

Required Courses.....	Units
ART M11	History of Art: Prehistoric through Gothic.....3.0
ART M12	History of Art: Renaissance through Modern3.0
ART M13	History of Art: Modern through Contemporary3.0
ART M20	Two Dimensional Design3.0
ART M23	Three Dimensional Design3.0
ART M30	Drawing and Composition I.....3.0
GR M10	Introduction to Communication Design.....3.0
	Units from One of the RECOMMENDED OPTIONS..... 15.0
TOTAL	36.0

Recommended Options:

Choose either 2-D Studio Art Option or 3-D Studio Art Option:

2-D Studio Art Option (15 Units)

ART M32	Beginning Life Drawing I	3.0
ART M43	Beginning Painting I	3.0

Plus three of the following:

ART M31	Drawing and Composition II	3.0
ART M33	Beginning Life Drawing II	3.0
ART M40	Beginning Illustration	3.0
ART M44	Beginning Painting II	3.0
ART M77	Beginning Sculpture I	3.0
ART M79	Figure Sculpture	3.0
ART M90	Beginning Printmaking I	3.0
ART M98/GR M73.....	Silk Screen Serigraphy I	3.0

OR

3-D Studio Art Option (15 Units)

ART M70	Beginning Ceramics I	3.0
ART M77	Beginning Sculpture I	3.0

Plus three of the following:

ART M71	Beginning Ceramics II	3.0
ART M72	Ceramic Design I	3.0
ART M73	Ceramic Design II	3.0
ART M74	Glaze Design I	3.0
ART M75	Glaze Design II	3.0
ART M78	Beginning Sculpture II	3.0
ART M79	Figure Sculpture	3.0

Art Courses**ART M10 – 3 Units****Art Appreciation**

Prerequisites: None

Class Hours: 3 lecture

A study of the major principles and techniques used to create visual art objects in diverse media, this course helps students to develop informed perceptions and evaluations of works of art to understand them in their historical and cultural contexts. (Formerly ART M02) Applies to Associate Degree. Transfer credit: CSU; UC

ART M11 – 3 Units**History of Art: Prehistoric through Gothic**

Prerequisites: None

Class Hours: 3 lecture

The history of art from prehistoric times through the middle ages, ranging from ancient to Gothic art, with an emphasis on the Western world. Examines key styles and movements in art history and Introduces techniques for producing art. This course is required for art majors. (Formerly ART M01A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M12 – 3 Units**History of Art: Renaissance through Modern**

Prerequisites: None

Class Hours: 3 lecture

The history of art from the early Renaissance to modern times with an emphasis on the Western world. Continues to examine key figures and movements in art history and to introduce new techniques of producing art. This course is required for art majors. (Formerly ART M01B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M13 – 3 Units**History of Art: Modern through Contemporary**

Prerequisites: None

Class Hours: 3 lecture

Investigates the theory and practice of the visual arts from about 1850 to the present by examining the various movements and how they reflect social and technological changes in the modern era. (Formerly ART M01C) Applies to Associate Degree. Transfer credit: CSU; UC

ART M14 – 3 Units**History of Art: Asian**

Prerequisites: None

Class Hours: 3 lecture

The history of the art of Asia including India, Southeast Asia, China, Korea and Japan. Covers architecture, sculpture, painting, graphics and crafts from prehistory to the twentieth century. Examines key styles and monuments in Asian art within the context of the historical and religious background. (Formerly ART M03) Applies to Associate Degree. Transfer credit: CSU; UC

ART M20 – 3 Units**Two Dimensional Design**

Prerequisites: None

Class Hours: 2 lecture, 3 lab

Provides background in the use of design principles, color theory and its practical applications through specific weekly projects in line, shape, texture, form, and the principles of abstraction. (Formerly ART M04A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M22A/B – 1 to 3 Units**Independent Studies in Art**

Prerequisites: A previous course in Art

Class Hours: 1 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of art through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

ART M23 – 3 Units**Three Dimensional Design**

Prerequisite: None

Recommended Prep: ART M20

Class Hours: 2 lecture, 3 lab

Introduces three-dimensional design through the study of form, structure and theory in the creation of three-dimensional projects using a variety of materials. (Formerly ART M04B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M30 – 3 Units**Drawing and Composition I**

Prerequisites: None

Recommended Prep: ART M20

Class Hours: 1 lecture, 6 lab

Stresses graphic representation of objects through a variety of media and techniques, emphasizing pictorial composition, depth perception, perspective and rendering. (Formerly ART M12A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M31 – 3 Units **Drawing and Composition II**

Prerequisites: ART M30

Class Hours: 1 lecture, 6 lab

Expands exploration of pen and ink and watercolor washes through a study of illustrative drawing, analytic abstraction concepts and advanced problems in rendering. (Formerly ART M12B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M32 – 3 Units **Beginning Life Drawing I**

Prerequisites: ART M30

Class Hours: 1 lecture, 6 lab

Draws the human figure from live models. Emphasizes structure, proportion, form and composition through an Introduction of linear and tonal concepts. Different media will be explored, including charcoal, conte crayon, pencil, pen and ink. (Formerly ART M13A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M33 – 3 Units **Beginning Life Drawing II**

Prerequisites: ART M32

Class Hours: 1 lecture, 6 lab

Expands drawing the human figure from a live model. Emphasizes freedom of expression as well as structure, proportion, form and composition. (Formerly ART M13B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M34 – 3 Units **Advanced Life Drawing I**

Prerequisites: ART M33

Class Hours: 1 lecture, 6 lab

Further expands drawing the human figure, beginning with a skeletal structure. Uses many media emphasizing structure, proportion, form and composition, and continues practice of linear and tonal concepts. (Formerly ART M13C) Applies to Associate Degree. Transfer credit: CSU; UC

ART M35 – 3 Units **Advanced Life Drawing II**

Prerequisites: ART M34

Class Hours: 1 lecture, 6 lab

Further expands drawing the human figure and skeletal structure. Uses many media emphasizing structure, proportion, form and composition, and increasing practices of linear and tonal concepts. (Formerly ART M13D) Applies to Associate Degree. Transfer credit: CSU; UC

ART M40 – 3 Units **Beginning Illustration**

Prerequisites: ART M30 or concurrent enrollment

Class Hours: 2 Lecture, 3 Lab

Introduces pen and ink, watercolor, collage, and colored pencil techniques as principle means of self-expression. Analyzes topical themes and individual story lines as potential subject matter for weekly drawings. (Same course as GR M40). Transfer credit: CSU

ART M41 – 3 Units **Intermediate Illustration**

Prerequisites: ART M40 or GR M40

Class Hours: 2 Lecture, 3 Lab

Introduces advanced studies in pen and ink, watercolor washes and mixed media, exploring individual style appropriate to magazine, newspaper and book illustration. (Same course as GR M41). Transfer credit: CSU

ART M42 – 3 Units **Advanced Illustration**

Prerequisites: ART M41 or GR M41

Class Hours: 2 Lecture, 3 Lab

Emphasizes development of individual style through advanced illustration techniques. Requires individual projects. (Same course as GR M42). May be taken a total of two (2) times for credit. Transfer credit: CSU

ART M43 – 3 Units **Beginning Painting I**

Prerequisites: ART M20 or ART M30

Class Hours: 1 lecture, 6 lab

Introduces the nature of structural and expressive values in contemporary painting, emphasizing form, control or pictorial order, and the uses of color and light as fundamental skills necessary to mastery of basic painting techniques. (Formerly ART M16A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M44 – 3 Units **Beginning Painting II**

Prerequisites: ART M43

Class Hours: 1 lecture, 6 lab

Continues the development of fundamental painting skills and concepts. Emphasizing technical competence and individual concepts using both traditional and modern materials. (Formerly ART M16B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M45 – 3 Units **Advanced Painting I**

Prerequisites: ART M44

Class Hours: 1 lecture, 6 lab

One-on-one student/teacher relationship explores advanced painting concepts and techniques. Encourages personal and unique self-expression through experimentation with, and interpretation of subject matter. (Formerly ART M16C) Applies to Associate Degree. Transfer credit: CSU; UC

ART M46 – 3 Units **Advanced Painting II**

Prerequisites: ART M45

Class Hours: 1 lecture, 6 lab

Allows more advanced work with painting concepts and techniques aimed at developing more extensive self-expression. (Formerly ART M16D) Applies to Associate Degree. Transfer credit: CSU; UC

ART M47 – 3 Units Landscape Painting I

Prerequisites: ART M20 or ART M30
Class Hours: 1 lecture, 6 lab

Introduces painting skills and concepts applicable to landscape (both indoor and outdoor). Focuses on painting nature out of doors in various media, such as acrylics, oils, watercolor, and pastels. (Formerly ART M17A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M48 – 3 Units Landscape Painting II

Prerequisites: ART M47
Class Hours: 1 lecture, 6 lab

Expands the skills and concepts of painting applicable to landscape, emphasizing a more personal, creative approach. (Formerly ART M17B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M49 – 3 Units Water Color I

Prerequisites: ART M20 or ART M30
Class Hours: 1 lecture, 6 lab

Introduces a thorough understanding of the watercolor media, building from simple exercises to more complex problems solved in personal and creative ways. (Formerly ART M18A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M50 – 3 Units Water Color II

Prerequisites: ART M49
Class Hours: 1 lecture, 6 lab

Offers advanced watercolor techniques, encouraging the use of the multiple images in both landscapes and still life. (Formerly ART M18B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M60A-Z – 1 to 3 Units Topics in Art

Prerequisites: To be determined
Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Transfer credit: determined by transfer institution.

Developed topics include:

ART M60A – 1 Unit Art Gallery Practices

Prerequisites: ART M20 or GR M32 or PHOT M01B
Class Hours: 1 lecture

Introduces gallery practices relating to exhibition selection and design as well as budgeting and installation techniques. Applies to Associate Degree. Transfer credit: CSU

ART M60C – 1 to 3 Units Printmaking Studio Practices

Prerequisites: ART M90
Class Hours: 3, 6 or 9 lab as arranged

Fully explores intaglio, relief, pantographs or experimental techniques under instructor's direct supervision. Meets individual student needs. Applies to Associate Degree. Transfer credit: CSU; UC

ART M60D – 1 to 3 Units Printmaking Studio Practices

Prerequisites: ART M91
Class Hours: 3, 6 or 9 lab as arranged

Fully explores intaglio, relief, pantographs or experimental techniques under instructor's direct supervision. Meets individual student needs. Applies to Associate Degree. Transfer credit: CSU; UC

ART M60E – 1 to 3 Units Printmaking Studio Practices

Prerequisites: ART M92
Class Hours: 3, 6 or 9 lab as arranged

Fully explores intaglio relief pantographs or experimental techniques under instructor's direct supervision. Meets individual student needs. Applies to Associate Degree. Transfer credit: CSU; UC

ART M70 – 3 Units Beginning Ceramics I

Prerequisites: None
Class Hours: 1 lecture, 6 lab

Introduces the potter's wheel and provides practice in elementary clay construction methods as well as glazing and firing techniques. Teaches basic ceramic design concepts, form, color, texture, decoration and craftsmanship. (Formerly ART M08A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M71 – 3 Units Beginning Ceramics II

Prerequisites: ART M70
Class Hours: 1 lecture, 6 lab

Practices the techniques of elementary clay construction through exploration of sculptural forms and the development of glazes, decoration and firing methods. (Formerly ART M08B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M72 – 3 Units Ceramic Design I

Prerequisites: ART M20 and ART M71
Class Hours: 1 lecture, 6 lab

Explores clay bodies, glaze materials and calculations, and firing techniques through independent projects. Develops individual growth and creative expression. (Formerly ART M09A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M73 – 3 Units Ceramic Design II

Prerequisites: ART M72
Class Hours: 1 lecture, 6 lab

Offers in-depth study of ceramics through independent projects designed to enhance artistic mastery. (Formerly ART M09B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M74 – 3 Units Glaze Design I

Prerequisites: None
Recommended Prep: ART M70
Class Hours: 1 lecture, 6 lab

Introduces glaze formulations and ceramic technology, including clays, kilns, firing. Continues work in all forms of clay construction, technique and design. (Formerly ART M60F) Applies to Associate Degree. Transfer credit: CSU; UC

ART M75 – 3 Units**Glaze Design II**

Prerequisites: ART M74

Class Hours: 1 lecture, 6 lab

Further investigation into glaze formulations. Practices with formulating new glazes for firing at various temperatures. This course may be taken three (3) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

ART M77 – 3 Units**Beginning Sculpture I**

Prerequisites: None

Class Hours: 1 lecture, 6 lab

Develops awareness for historical and contemporary concerns regarding three-dimensional design concepts. Encourages personal expression through materials such as paper, cardboard, plaster, wood, wire, and clay. (Formerly ART M19A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M78 – 3 Units**Beginning Sculpture II**

Prerequisites: ART M77 or portfolio equivalent

Class Hours: 1 lecture, 6 lab

Expand technical and conceptual skills while developing self-expression and personal style in sculpture. Emphasis on discovering the medium that best relates to individual expression. May be taken a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

ART M79 – 3 Units**Figure Sculpture**

Prerequisites: None

Recommended Prep: ART M23 or ART M32 or ART M77

Class Hours: 1 lecture, 6 lab

The basic principles, materials and techniques of sculpting the human figure from live models. Emphasizes structure, proportion, balance, and self-expression in three-dimensional form. Develops awareness of historical and contemporary concerns in figure sculpture. Materials include clay, wire, and mixed media. Applies to Associate Degree. Transfer credit: CSU; UC

ART M80 – 1 to 4 Units**Internship in Art**

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center at (805) 378-1536. May be taken a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

ART M90 – 3 Units**Beginning Printmaking I**

Prerequisites: ART M20

Class Hours: 1 lecture, 6 lab

Introduces printmaking media, including intaglio (etching, engraving, etc.) but emphasizes relief, holograph and embossed print. (Formerly ART M15A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M91 – 3 Units**Beginning Printmaking II**

Prerequisites: ART M90

Class Hours: 1 lecture, 6 lab

Fully explores intaglio techniques, including line etching, aquatint, sugar lift, and experimental techniques. May be taken a total of two (2) times for credit. (Formerly ART M15B) Applies to Associate Degree. Transfer credit: CSU; UC

ART M92 – 3 Units**Advanced Printmaking I**

Prerequisites: ART M91

Class Hours: 1 lecture, 6 lab

Expands work in intaglio and relief, emphasizing individual exploration of solutions and experimental techniques. (Formerly ART M15C) Applies to Associate Degree. Transfer credit: CSU; UC

ART M93 – 3 Units**Advanced Printmaking II**

Prerequisites: ART M92

Class Hours: 1 lecture, 6 lab

Offers advanced work in intaglio with greater exploration of experimental techniques. Applies to Associate Degree. (Formerly ART M15D) Transfer credit: CSU; UC

ART M96 – 3 Units**Airbrush Techniques I**

Prerequisites: ART M92

Class Hours: 2 lecture, 3 lab

Course covers learning airbrush painting techniques, the basics of airbrush illustration and photo retouching for advertising, commercial and industrial airbrush applications, and personal expression through airbrush and brush painting. (Same course as GR M50). May be taken a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

ART M97 – 3 Units**Airbrush Techniques II**

Prerequisites: ART M96

Class Hours: 2 lecture, 3 lab

This advanced course introduces various color applications and techniques, such as transparent dyes, transparent and opaque designer color. Techniques and treatments are presented along with various "Tricks of the trade." (Same course as GR M51) May be taken a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

ART M98 – 3 Units**Silk Screen Serigraphy I**

Prerequisites: None

Recommended Prep: ART M20

Class Hours: 1 lecture, 6 lab

Introduces serigraphy printing and its artistic and commercial application. Includes preparation of various screen printing stencil methods, preparation and care of screens, and use of transparent and opaque inks. Provides group and individual critiques. (Same course as GR M73) (Formerly ART M14A) Applies to Associate Degree. Transfer credit: CSU; UC

ART M99 – 3 Units
Silk Screen Serigraphy II

Prerequisites: ART M98 or GR M73
 Class Hours: 1 lecture, 6 lab

Introduces advanced techniques for utilizing photo screen-printing singly or in combination with other stencil methods. Includes instruction and practice of the process camera and its application to serigraphy printing; basic line photography and contact printing; and single and multi-color printing and posterization techniques. Explores special printing on various surfaces. (Same course as GR M74) (Formerly ART M14B). May be taken a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC (maximum credit, one course)

Astronomy

Astronomers use the principles of physics and mathematics to answer questions about the fundamental nature of the universe and about celestial bodies such as the sun, moon, planets, and stars. They may apply their knowledge to problems in navigation and space flight.

Dean

Kim Hoffmans, Phone (805) 378-1459

Full-time Faculty

Balazs Becht, Clinton Harper, Ron Wallingford

Counselors

Edna Ingram, Candace Peyton, Danita Redd

Degree in Astrophysics

To earn an Associate in Science degree with an emphasis in Astrophysics, students complete 48 specified units, plus General Education Degree Requirements. These major requirements optimize preparation for upper division course work for advanced degrees in Astrophysics offered by four-year institutions. Since the course work in astrophysics is sequential, students may spend less time earning an Associate and/or Bachelor's degree by deferring some of the university general education requirements until their junior and senior years and by giving priority to the requirements for a major in astrophysics. In addition, earning this degree suggests an achievement of technical skills that may be helpful in seeking immediate employment.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
AST M01*	An Introduction to Astronomy.....3.0
AST M01L	An Introduction to Astronomy Laboratory.....1.0
CHEM M01A	General Chemistry I.....6.0
CHEM M01B	General Chemistry II.....6.0
MATH M25A	Calculus with Analytic Geometry I.....5.0
MATH M25B	Calculus with Analytic Geometry II.....5.0
MATH M25C	Calculus with Analytic Geometry III.....5.0
MATH M35	Applied Differential Equations.....3.0
PHYS M20A/M20AL ..	Mechanics of Solids and Fluids/Lab.....5.0
PHYS M20B/M20B....	Thermodynamics, Electricity & Magnetism/Lab.....5.0
PHYS M20C/M20CL ..	Wave Motion, Optics and Modern Physics/Lab.....5.0
Total	49.0

*Not typically required for a bachelor's degree in astrophysics
 Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536. See General Education Degree Requirements and Transfer Information.

Astronomy Courses

AST M01 – 3 Units
An Introduction to Astronomy

Prerequisites: None
 Recommended Prep: MATH M01 or equivalent college course, or high school algebra.
 Class Hours: 3 lecture

Surveys the origins, history, and accomplishments of the science of astronomy. Covers observational astronomy, light, telescopes, the solar system, stars, galaxies, and cosmology. Applies to Associate Degree. Transfer credit: CSU; UC

AST M01L – 1 Unit
An Introduction to Astronomy Laboratory

Prerequisites: Completion of or concurrent enrollment in AST M01 or AST M02
 Class Hours: 3 lab

Reinforces principles and techniques of astronomy through the use of telescopes, star charts, and other common devices to observe and measure the moon, the planets, and the stars. Applies to Associate Degree. Transfer credit: CSU; UC

AST M02 – 3 Units
Our Solar System: The Next Frontier

Prerequisites: None
 Class Hours: 3 lecture

Introduces both observational and historical Astronomy, reviewing the planets, satellites, asteroids, comets, and the sun. Discusses the laws of motion and gravitation, especially in connection with space travel - past, present and future. Applies to Associate Degree. Transfer credit: CSU; UC

AST M22A/B – 0.5 to 3 Units
Independent Studies in Astronomy

Prerequisites: A previous course in Astronomy
 Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of Astronomy through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

AST M80 – 1 to 4 Units
Internship in Astronomy

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.
 Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center at (805) 378-1536. May be taken a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

Astronomy Hotline

Ventura County Astronomical Society Starline offers 24-Hour Hotline news and information about astronomy: CALL (805) 520-9666

Behavioral Science

Dean

Tim McGrath, Phone (805) 378-1445

Full Time Faculty

Cynthia Barnett, Frank Bianchino, Julie Campbell, Lynn Meschan, Linda McDill, Sally Ponce-O'Rourke, Ofelia Romero-Motlagh, Adya Riss, Margaret Tennant, Dan Vieira.

Counselors

Frank Bianchino, Anitra Evans, Michael Johnson, Pam Kennedy Luna, Ofelia Romero-Motlagh

Degree and Certificate Options in Behavioral Science

Associate Degree

To earn an Associate Degree with a major in Behavioral Science, students complete 18 specified units, specializing either Anthropology, Psychology or Sociology plus General Education Degree Requirements. For particulars on the areas of specialization, refer to individual course listings in each discipline.

In addition to General Education Degree Requirements, complete the following:

Required Courses.....	Units
ANTH M02.....Cultural Anthropology.....	3.0
PSY M01.....Introduction to Psychology.....	3.0
SOC M01.....Introduction to Sociology.....	3.0
Units from RECOMMENDED GROUPS.....	9.0

Recommended Groups: Follow Restrictions

Group 1: Complete Two Courses (6 units) from ANTH, PSY or SOC, noting restrictions:

- Anthropology: Any ANTH course, except ANTH M01, ANTH M22A/B, ANTH M60 series or ANTH M80.
- Psychology: Any PSY course, except PSY M22A/B, PSY M60 series or PSY M80.
- Sociology: Any SOC course, except SOC M22A/B, SOC M60 series or SOC M80.

AND
Group 2: Complete One Course (3 units) from a discipline not selected in Group 1, noting restrictions:

- Anthropology: Any ANTH course, except ANTH M01, ANTH M01L, ANTH M22A/B, ANTH M60 series or ANTH M80.
- Psychology: Any PSY course, except PSY M22A/B, PSY M60 series or PSY M80.
- Sociology: Any SOC course, except SOC M22A/B, SOC M60 series or SOC M80.
- Chicano Studies: Select CHST M01, CHST M02 or CHST M04.
- History: Select HIST M02, HIST M03, HIST M04, HIST M06, HIST M08, HIST M12 or HIST M14
- Humanities: Select HUM M18 or HUM M19.

Students planning to transfer need to consult with a counselor, prepare a Student Evaluation Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536. See General Education Degree Requirements and Transfer Information.

Biological Sciences

Study in biology leads to a wide range of careers upon the attainment of the baccalaureate degree. Many students prepare for entry into graduate or professional schools upon graduation; programs in dentistry, medicine, nursing, pharmacy, and similar professions depend upon an emphasis in biological sciences. Careers are found in teaching, research, and government service.

Most careers require additional degrees. To explore specific career options, check the software and online resources available in the Career Transfer Center located in the Administration Building, (805) 378-1536.

Dean

Kim Hoffmans, Phone (805) 378-1459

Full-time Faculty

Sandy Bryant, Katherine Courtney, Maureen Harrigan, azmir Hernandez, Subhash Karkare, Paul Kores, Norman Marten, Marie Panec, Mary Rees, Eric Shargo

Counselors

Donna Proske Allyn, Frank Bianchino, Chuck Brinkman, Candace Peyton, Danita Redd

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536.

Degree in Biology

Associate in Arts Degree

To earn an Associate in Arts Degree with a major in Biology, students complete 38 specified units, plus General Education Degree Requirements. These major requirements optimize preparation for upper division course work for advanced degrees in Biology offered by four-year institutions. Since the course work in biology is sequential, students may spend less time earning an Associate and/or Bachelor's Degree by deferring some of the university general education requirements until their junior and senior years and by giving priority to the requirements for a major in biology. In addition, earning this degree suggests an achievement of technical skills that may be helpful in seeking immediate employment.

In addition to General Education Degree Requirements, complete the following:

Required Courses.....	Units
BIOL M02A/B.....General Biology I/II.....	5.0/5.0
CHEM M01A/B.....General Chemistry I/II.....	6.0/6.0
MATH M16A/B.....Applied Calculus I/II.....	3.0/3.0
PHYS M10A/M10AL.....General Physics I/Lab.....	4.0/1.0
PHYS M10B/M10BL.....General Physics II/Lab.....	4.0/1.0
TOTAL	38.0

See General Education Degree Requirements and Transfer Information.

Associate in Science Degree

To earn an Associate in Science Degree with a major in Biology, students complete 42 specified units, plus General Education Degree Requirements. These major requirements optimize preparation for upper division course work for advanced degrees in Biology offered by four-year institutions. Since the course work in biology is sequential, students may spend less time earning an Associate and/or Bachelor's Degree by deferring some of the university general education requirements until their junior and senior years and by giving priority to the requirements for a major in biology. In addition, earning this degree suggests an achievement of technical skills that may be helpful in seeking immediate employment.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
BIOL M02A/BGeneral Biology I/II	5.0/5.0
CHEM M01A/B.....General Chemistry I/II	6.0/6.0
MATH M25A/B.....Calculus with Analytic Geometry I/II	5.0/5.0
AND	
PHYS M20A/M20AL.. Mechanics of Solids and Fluids/Lab.....	4.0/1.0
PHYS M20B/M20BL.. Thermodynamics, Electricity and Magnetism/Lab	4.0/1.0
OR	
CHEM M07A.....General Organic Chemistry I.....	5.0
CHEM M07B.....General Organic Chemistry II	5.0
TOTAL	42.0

See General Education Degree Requirements and Transfer Information.

Anatomy Courses

ANAT M01 – 4 Units

Human Anatomy

Prerequisites: BIOL M01 or BIOL M02A

Class Hours: 2 lecture, 6 lab

Examines the anatomy of human organs and organ systems from a functional perspective that focuses on an understanding of the design of the human body. In laboratory, students learn to distinguish tissue types through histological specimens, and study the three-dimensional relationship of body structures through required non-human mammalian dissection. Demonstrations on human cadavers will afford students a working knowledge of the gross anatomy of the human body. Applies to Associate Degree. Transfer credit: CSU; UC

ANAT M22A/B – 0.5 to 3 Units

Independent Studies in Anatomy

Prerequisites: A previous course in Anatomy

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of anatomy through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

Anatomy/Physiology Courses

ANPH M01 – 6 Units

Human Anatomy and Physiology

Prerequisites: BIOL M01 or BIOL M02A with a grade of C or better

Class Hours: 4 lecture, 6 lab

Introduces the structures and the relationships of human body parts and explores how the functioning of the parts is related to their structure. The combined study of anatomy and physiology integrates the study of structure with functioning of the system. The themes of hierarchical structural organization and maintenance of homeostasis form the framework for the study of the human system at both macroscopic and microscopic levels. Laboratory activities examine the structure/function relationship through the required dissection of a cat. A human cadaver is used to demonstrate the principles in the human body. Applies to Associate Degree. Transfer credit: CSU; UC (under review)

Biology Courses

BIOL M01 – 4 Units

Introduction to Biology

Prerequisites: None

Class Hours: 3 lecture, 3 lab

Introduces non-majors to science and scientific methodology through a study of the basic principles of biology. Focuses on student understanding of the unity and diversity of life through discussions of topics that include biological chemistry, metabolism, cell biology, molecular biology, genetics, evolution of living systems, and ecology. Woven throughout the course are the implications of the science of biology on human affairs. Majors in biology, health science (pre-nursing), or related areas enroll in BIOL M02A. Applies to Associate Degree. Transfer credit: CSU; UC (no credit if taken after BIOL M02A)

BIOL M02A – 5 Units

General Biology I

Prerequisites: MATH M03 or 2 years of high school algebra or equivalent and CHEM M12 or high school chemistry all with a grade of C or better

Class Hours: 4 lecture, 3 lab

First semester of general biology for majors. Introduces students to major biological themes and principles that are fundamental to an understanding of life processes in any field of biology today. Topics covered include the scientific process, biological chemistry, cellular biology, metabolism, life cycles, genetics, molecular biology, DNA technology, developmental genetics, and evolutionary processes. Students completing this course are prepared for the more advanced courses offered by the department. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M02B – 5 Units

General Biology II

Prerequisites: BIOL M02A

Class Hours: 4 lecture, 3 lab

Second semester of general biology for majors. Covers the diversity and functioning of living systems. Topics covered include origins of life, biological diversity, animal form and function, and ecology. Students completing this course will have an appreciation of the broad diversity of life forms on the planet, a basic understanding of physiological processes in animals, and an Introduction to how organisms interact with their environment and each other in ecosystems. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M02C – 5 Units

Genetics and Molecular Biology

Prerequisites: BIOL M02A and CHEM M07A

(CHEM M07A may be taken concurrently)

Class Hours: 4 lecture, 3 lab

An extension of the genetics, molecular and cell biology Introduced in BIOL M02A. Inheritance and macromolecular functioning are the focus of this course. Emphasizes data analysis and problem-solving skills. Topics include analysis of inheritance patterns, structure and expression of DNA in viruses, bacteria, and eukaryotes, regulation of gene expression, RNA and protein functioning, and examination of current DNA analysis technologies and their applications. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M03 – 4 Units**Marine Life and Its Environment**

Prerequisites: None

Class Hours: 3 lecture, 3 lab

Survey of marine life from microbiota through macroscopic algae and animals, including both invertebrate and vertebrate. Applies basic ecological principles to various marine ecosystems, both inshore and offshore, with an emphasis on the integration of biotic communities with the abiotic environment. Considers human impact on and uses of marine environments. Requires field trips to various marine venues. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M05 – 4 Units**Field Biology – A Natural History of California**

Prerequisites: None

Class Hours: 3 lecture, 3 lab

Introduces the ecology, taxonomy, and natural history of plant life in the diverse ecosystems of California. Uses the principles of evolution, ecology, and geology to illustrate the structure of plant communities that form the bases of ecosystems. Includes identification of dominant plant species in each community and visits to desert, salt and fresh water wetlands, chaparral, and mountain habitats to explore plant, animal, and environmental interactions and the impact of humans on these environments. Field trips are required. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M10 – 3 Units**DNA Biology: Applications and Consequences of Genetic Engineering**

Prerequisites: None

Class Hours: 3 lecture

Introduces the revolution associated with genetic engineering that has resulted in the ability to manipulate the genetic traits of any organism. Explores the complex and rapidly expanding field of DNA recombinant technology and its application and implications in today's world. Provides review of biological concepts and then builds on this knowledge through an exploration of issues, such as stem cell research, cloning, recombinant DNA technology, gene therapy, the human genome project, crop engineering, and bioethics. Intended for students in any major. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M10L – 1 Unit**DNA Biology Laboratory**

Prerequisites: None

Corequisite: BIOL M10

Class Hours: 3 lab

Laboratory course for BIOL M10. Introduces a variety of techniques and processes used in the field of DNA biology and genetic engineering. Includes internet-based exercises in bioinformatics; laboratory skills in the manipulation and analysis of DNA using equipment appropriate to microanalyses; and experiments such as bacterial transformation, DNA fingerprinting, PCR, hybridization, and cloning. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M11 – 5 Units**Introduction to Biotechnology & Molecular Biology**

Prerequisites: CHEM M13 or CHEM M01B, BIOL M02A and MATH 15

Class Hours: 3 lecture, 6 lab

Builds on concepts and principles of cell biology and Introduces many modern molecular and biochemical techniques. The focus will include documentation, safety, solution and buffer preparation, spectrophotometry, nucleic acid isolation, recombinant DNA techniques, cell transformation, recombinant DNA analysis, agarose and SDS cell electrophoreses, nucleic acid hybridization, DNA sequence analysis, immunochemistry, principles, techniques and uses of chromatography, protein purification and bioassays, and the application of these techniques in biotechnology. (Same course as BIOT M01). Applies to Associate Degree. Transfer credit: CSU

BIOL M11A – 4 Units**Introduction to Biotechnology and Molecular Biology I**

Prerequisites: None

Class Hours: 3 lecture, 3 lab

Examines the role of molecular biology in the manufacturing of commercial pharmaceutical and agricultural products. Introduces basic biotechnology laboratory skills, including documentation, safety, and solution and buffer preparation. Develops proficiency in aseptic technique, spectrophotometry, and electrophoresis. (Same course as BIOT M01A) Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M11B – 4 Units**Introduction to Biotechnology and Molecular Biology II**

Prerequisites: BIOL M11A or BIOT M01A

Class Hours: 2 lecture, 6 lab

Expands concepts and techniques Introduced in BIOT M01A or BIOL M11A. Introduces modern molecular biology techniques, including nucleic acid isolation, recombinant DNA techniques, cell transformation, recombinant DNA analysis, nucleic acid hybridization, and DNA sequence analysis. Explores the production and purification of recombinant proteins using biochemical techniques such as immunochemistry and chromatography. (Same course as BIOT M01B) Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M12 – 12 Units**Industrial Biotechnology**

Prerequisites: MICR M01 and BIOL M11 or BIOT M01

Class Hours: 8 lecture, 12 lab

Designed to give an extensive education and training in industrial biotechnology and contains eight major areas of emphasis. These are plant design, process support, cell culture, microbial fermentation, protein recovery and purification, formulation, fill and packaging, quality control, environmental monitoring and validation. (Same course as BIOT M02). Applies to Associate Degree. Transfer credit: CSU

BIOL M12A – 2 Units**Environmental Control and Process Support**

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing of biopharmaceuticals. Presents an overview of the manufacturing process and Introduces environmental control and process support with a focus on Good Laboratory Practices (GLP)/Good Manufacturing Practices (GMP), clean room procedure, monitoring techniques, and required documentation. (Same course as BIOT M02A) Applies to Associate Degree. Transfer credit: CSU

BIOL M12B – 2 Units **Manufacturing: Quality Control and Validation**

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing of pharmaceuticals. Introduces validation and quality control. Reviews manufacturing process, including formulation, lyophilization, packaging and filling. Focuses on validation assays, systems evaluations, process testing and reporting. (Same course as BIOT M02B) Applies to Associate Degree. Transfer credit: CSU

BIOL M12C – 3 Units **Manufacturing: Cell Culture and Microbial Fermentation**

Prerequisites: None

Class Hours: 1 lecture, 6 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing pharmaceuticals. Introduces cell culture and microbial fermentation. Focuses on bacterial techniques, microbial assessment, mammalian cell culture, bioreactor fermentation, and media preparation. Compares small and large industrial scale cell culture. (Same course as BIOT M02C) Applies to Associate Degree. Transfer credit: CSU

BIOL M12D – 2 Units **Bioprocessing: Recovery and Purification**

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing pharmaceuticals. Introduces bioprocessing, recovery, and purification techniques. Focuses on protein separation and purification, chromatography, large-scale recovery, and identity assays. Reviews skills necessary for a successful job search in the field of Biotechnology. (Same course as BIOT M02D) Applies to Associate Degree. Transfer credit: CSU

BIOL M12E – 2 Units **Business Practices and Governmental Regulation**

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing pharmaceuticals. Examines manufacturing from the perspective of company operations, including general building design, logistics, and bioethics. Focuses on business practices and governmental regulations. (Same course as BIOT M02E) Applies to Associate Degree. Transfer credit: CSU

BIOL M14 – 3 Units **Natural History of Ventura County**

Prerequisites: None

Class Hours: 2 lecture, 3 lab

Explores the diverse ecosystems of Ventura County using principles of ecology and geology to explain the structure of the plant and animal communities that form the bases of these ecosystems. Students will visit beach and dune, inter-tidal, island, and mountain habitats to discover how life has evolved and adapted to each of these environments. Human impact, past and present, on the local environment will be assessed, and the role of conservation and preservation in the future of Ventura County ecosystems addressed. Field trips are required. Applies to Associate Degree. Transfer credit: CSU

BIOL M16 – 3 Units **Human Biology**

Prerequisites: None

Class Hours: 3 lecture

Introduces the biology of humans covering basic cell structure, organ systems, inheritance, reproduction, development and aging, disease process, and human evolution and ecology. Examines biology as a scientific endeavor and analyzes the functioning of the human body both as an integrated system and as a part of the ecosystem with special attention to physiological structure and function. Students will acquire the knowledge to make intelligent decisions on bioethical issues that face society. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M17 – 3 Units **Heredity, Evolution and Society**

Prerequisites: None

Class Hours: 3 lecture

Introduces principles of modern genetics and evolutionary theory with specific reference to the human species. Examines scientific method, biological laws governing heredity in individuals and populations, biological factors that influence health and disease, and the interplay between the human population and the environment. Analyzes the world's economic, demographic, and political problems from a biological perspective, and discusses implications and possible solutions. Applies to Associate Degree. Transfer credit: CSU; UC

BIOL M22A/B – 0.5 to 3 Units **Independent Studies in Biology**

Prerequisites: A previous course in Biology

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of biology through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

BIOL M50A – 0.5 Unit **Bridge to Biotechnology**

Prerequisites: None

Class Hours: 1.5 lab

Designed as a bridge for entry-level and high school students who are interested in the field of biotechnology. Includes practical, hands-on experience with current biotechnology laboratory techniques. (Same course as BIOT M50A) Applies to Associate Degree.

BIOL M80 – 1 to 4 Units **Internship in Biology**

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

Botany Courses**BOT M01 – 5 Units****Introduction to Botany**

Prerequisites: None

Class Hours: 3 lecture, 6 lab

Introduces the anatomy and physiology of plants. Emphasizes the physical and chemical aspects of life, as related to plants, including cellular organization, reproduction, heredity, ecology, evolution, and plant kingdom survey. In lab students develop skill with the scientific method as they examine the anatomy and physiology of representative plants in each of the major plant groupings. Applies to Associate Degree. Transfer credit: CSU; UC

BOT M06 – 3 Units**Plants and Society**

Prerequisites: None

Class Hours: 3 lecture

Introduces basic concepts related to plant structure, function, genetics, evolution, and domestication. Examines the economic, aesthetic, and ecological roles of plants, and considers the role of plants as a force in shaping civilizations. Stresses the importance of plants and plant products in everyday life, as well as their ritualistic and pharmacological uses. Presents basic scientific principles and techniques using examples from plants and their products to gain an understanding of science and its value in today's society. Applies to Associate Degree. Transfer credit: CSU; UC

BOT M06L – 1 Unit**Plants and Society Lab**

Prerequisites: None

Co-requisite: BOT M06

Class Hours: 3 lab

Emphasizes plant structure and function and studies some of the major plant products used in everyday life, such as starches, oils, fibers, spices and medicines. Surveys the major groups of economically important plants, including cereals, legumes, squash and others; and reviews the principles of genetics, evolution, and plant systematics. Introduces students to basic scientific principles and techniques using examples from plants and plant products. Applies to Associate Degree. Transfer credit: CSU; UC

BOT M22A/B – 0.5 to 3 Units**Independent Studies in Botany**

Prerequisites: A previous course in Botany

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of botany through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

Microbiology Courses**MICR M01 – 5 Units****General Microbiology**

Prerequisites: BIOL M01 or BIOL M02A and PHSO M01 and CHEM M01A or CHEM M12 or high school chemistry all with a grade of C or better.

Class Hours: 3 lecture, 6 lab

Microbiological principles and lab techniques related to the morphology, metabolism, genetics, classification, and ecology of bacteria are emphasized. Characterization of viruses and eukaryotic microorganisms is also covered. Content on human disease includes characteristics of pathogens, immunology, and epidemiology. Laboratory exercises include aseptic technique, staining, the determination of bacterial growth conditions and requirements, and the identification of an unknown bacterium. In addition, clinical applications are included in lab exercises, as well as the examination of the bacteriology of water, soil, and food. Applies to Associate Degree. Transfer credit: CSU; UC

MICR M22A/B – 0.5 to 3 Units**Independent Studies in Microbiology**

Prerequisites: A previous course in Microbiology

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of microbiology through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of 6 units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

Physiology Courses**PHSO M01 – 5 Units****Human Physiology**

Prerequisites: BIOL M01 or BIOL M02A and CHEM M01A or CHEM M12 or high school chemistry

Class Hours: 4 lecture, 3 lab

A study of the functioning of human anatomical systems. Students will learn basic biochemical and biophysical principles inherent to the functioning of the various organ systems and integrate this knowledge into an understanding of the functioning of the organism as a whole. Laboratory computer simulations and experiments will demonstrate basic principles and introduce physiological techniques and instruments. Emphasis in both lecture and lab is on student understanding of systems integration and co-dependence. Applies to Associate Degree. Transfer credit: CSU; UC (PHSO M01 combined with ANPH M01: maximum credit, one course)

PHSO M22A/B – 0.5 to 3 Units**Independent Studies in Physiology**

Prerequisites: A previous course in Physiology

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of physiology through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

Zoology Courses

ZOO M01 – 5 Units

Introduction to Zoology

Prerequisites: None

Class Hours: 3 lecture, 6 lab

Introduces the major phyla of animals. Examines the anatomy and physiology of the major phyla from an evolutionary perspective, relating structure, metabolism, genetics, reproduction, development, lifestyle, behavior, and habitat location to species success. Emphasizes the relationship between form and function at the level of cells, organ systems, organisms, and communities. In lab, students develop skill with the scientific method as they examine the anatomy and physiology of representative animals in each of the major animal groupings. Applies to Associate Degree. Transfer credit: CSU; UC

ZOO M22A/B – 0.5 to 3 Units

Independent Studies in Zoology

Prerequisites: A previous course in Zoology

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of zoology through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

Botany

See Courses in Biological Sciences

Biotechnology

Biotechnology is a rapidly growing industry with projections for continued growth and exciting opportunities for employment. The Biotechnology Program is one of several in the State with a comprehensive curriculum in biomanufacturing. This program is designed in consultation with members of local industry (Baxter Healthcare Corporation, AMGEN Corporation, and others) to provide the essential technical experiences and training needed for this thriving field. The curriculum balances basic science courses with practical laboratory applications.

Dean

Kim Hoffmans, Phone (805) 378-1459

Full-time Faculty

Subhash Karkare

Counselors

Frank Bianchino, Danita Redd

To earn a Certificate or an Associate in Science Degree with a major in Biotechnology, students complete 49-51 specified units; those seeking the degree must also complete General Education Degree Requirements.

Associate in Science Degree

Required Courses.....	Units
*CHEM M01A.....General Chemistry I.....	6.0
*CHEM M01B.....General Chemistry II.....	6.0
MATH M15.....Introductory Statistics.....	5.0
BIOL M02A.....General Biology I.....	5.0
MICR M01.....General Microbiology.....	5.0
BIOT M01A.....Introduction Biotechnology and Molecular Biology I.....	4.0

OR

BIOL M11A.....Introduction Biotechnology and Molecular Biology I.....4.0

BIOT M01B.....Introduction Biotechnology and Molecular Biology II ...4.0

OR

BIOL M11B.....Introduction Biotechnology and Molecular Biology II ...4.0

BIOT M02A.....Environmental Control and Process Support 2.0

OR

BIOL M12A.....Environmental Control and Process Support2.0

BIOT M02B.....Manufacturing: Quality Control and Validation..... 2.0

OR

BIOL M12B.....Manufacturing: Quality Control and Validation.....2.0

BIOT M02C.....Manufacturing: Cell Culture and Microbial Fermentation..... 3.0

OR

BIOL M12C.....Manufacturing: Cell Culture and Microbial Fermentation.....3.0

BIOT M02D.....Bioprocessing: Recovery and Purification2.0

OR

BIOL M12D.....Bioprocessing: Recovery and Purification.....2.0

BIOT M02E.....Business Practices and Governmental Regulation2.0

OR

BIOL M12E.....Business Practices and Governmental Regulation2.0

PHSO M01.....Human Physiology.....5.0

OR

BIOL M02B.....General Biology II 5.0

TOTAL 49* OR 51

*Students not planning for university transfer may substitute CHEM M12/M13 Introductory Chemistry I/II (10 units) for CHEM M01A/M01B (12 units).

Biotechnology Certificate of Achievement

To earn a Certificate of Achievement in Biotechnology, students complete required courses for the Associate Degree program.

Required Courses..... Units

*CHEM M01A.....General Chemistry I 6.0

*CHEM M01B.....General Chemistry II.....6.0

MATH M15.....Introductory Statistics..... 5.0

BIOL M02A.....General Biology I..... 5.0

MICR M01.....General Microbiology 5.0

BIOT M01A.....Introduction to Biotechnology and Molecular Biology I.....4.0

OR

BIOL M11A.....Introduction to Biotechnology and Molecular Biology I.....4.0

BIOT M01B.....Introduction to Biotechnology and Molecular Biology II.....4.0

OR

BIOL M11B.....Introduction to Biotechnology and Molecular Biology II.....4.0

BIOT M02A.....Environmental Control and Process Support2.0

OR

BIOL M12A.....Environmental Control and Process Support2.0

BIOT M02B.....Manufacturing: Quality Control and Validation.....2.0

OR

BIOL M12B.....Manufacturing: Quality Control and Validation.....2.0

BIOT M02C.....Manufacturing: Cell Culture and Microbial Fermentation ...3.0

OR

BIOL M12C.....Manufacturing: Cell Culture and Microbial Fermentation ...3.0

BIOT M02D.....Bioprocessing: Recovery and Purification.....2.0

OR

BIOL M12D.....Bioprocessing: Recovery and Purification.....2.0

BIOT M02E.....Business Practices and Governmental Regulation2.0

OR

BIOL M12E.....Business Practices and Governmental Regulation2.0

PHSO M01.....Human Physiology..... 5.0

OR

BIOL M02B.....General Biology II 5.0

TOTAL 49.0* or 51.0

*Students not planning for university transfer may substitute CHEM M12/M13 Introductory Chemistry I/II (10 units) for CHEM M01A/M01B (12 units).

Manufacturing Operator Certificate of Achievement

Required Courses	Units
BIOL M02A.....General Biology I.....	5.0
BIOT M01A.....Introduction to Biotechnology and Molecular Biology I....	4.0
OR	
BIOL M11A.....Introduction to Biotechnology and Molecular Biology I....	4.0
BIOT M01B.....Introduction to Biotechnology and Molecular Biology II....	4.0
OR	
BIOL M11B.....Introduction to Biotechnology and Molecular Biology II....	4.0
BIOT M02A.....Environmental Control and Process Support	2.0
OR	
BIOL M12A.....Environmental Control and Process Support	2.0
BIOT M02B.....Manufacturing: Quality Control and Validation.....	2.0
OR	
BIOL M12B.....Manufacturing: Quality Control and Validation.....	2.0
TOTAL	17.0

Certificate of Achievement in Biotechnology/Biomedical

Laboratory Technology

Required Courses	Units
CHEM M12.....Introductory Chemistry.....	5.0
OR	
CHEM M01.....General Chemistry	6.0
BIOL M02A.....General Biology I.....	5.0
BIOL M02B.....General Biology II	5.0
OR	
PHSO M01.....Human Physiology	5.0
MICR M01.....General Microbiology	5.0
MATH M15.....Introductory Statistics.....	5.0
BIOT M01A.....Introduction to Biotechnology I.....	4.0
BIOT M01B.....Introduction to Biotechnology II	4.0
BIOT M02A.....Environmental Control & Process Control	2.0
BIOT M02B.....Manufacturing Quality Control Validation	2.0
BIOT M02C.....Cell Culture & Microbial Fermentation	3.0
BIOT M02D.....Bioprocessing: Recover & Purification	2.0
BIOT M02E.....Business/Government Regulation	2.0
TOTAL	49.0

Note: Students not planning for university transfer may substitute CHEM M12/13 Introductory Chemistry I/II (10 units) for CHEM M01A/B (12 units)

Biotechnology Courses

BIOT M01 – 5 Units

Introduction to Biotechnology & Molecular Biology

Prerequisites: CHEM M13 or CHEM M01B, BIOL M02A and MATH M15

Class Hours: 3 lecture, 6 lab

Builds on concepts and principles of cell biology and Introduces many modern molecular and biochemical techniques. The focus will include documentation, safety, solution and buffer preparation, spectrophotometry, nucleic acid isolation, recombinant DNA techniques, cell transformation, recombinant DNA analysis, agarose and SDS cell electrophoreses, nucleic acid hybridization, DNA sequence analysis, immunochemistry, principles, techniques and uses of chromatography, protein purification and bioassays, and the application of these techniques in biotechnology. (Same course as BIOL M11) Applies to Associate Degree. Transfer credit: CSU

BIOT M01A – 4 Units

Introduction to Biotechnology and Molecular Biology I

Prerequisites: None

Class Hours: 3 lecture, 3 lab

Examines the role of molecular biology in the manufacturing of commercial pharmaceutical and agricultural products. Introduces basic biotechnology laboratory skills, including documentation, safety, and solution and buffer preparation. Develops proficiency in aseptic technique, spectrophotometry, and electrophoresis. (Same course as BIOL M11A) Applies to Associate Degree. Transfer credit: CSU; UC

BIOT M01B – 4 Units

Introduction to Biotechnology and Molecular Biology II

Prerequisites: BIOT M01A or BIOL M11A

Class Hours: 2 lecture, 6 lab

Expands concepts and techniques Introduced in BIOT M01A. Introduces modern molecular biology techniques, including nucleic acid isolation, recombinant DNA techniques, cell transformation, recombinant DNA analysis, nucleic acid hybridization, and DNA sequence analysis. Explores the production and purification of recombinant proteins using biochemical techniques such as immunochemistry and chromatography. (Same course as BIOL M11B) Applies to Associate Degree. Transfer credit: CSU; UC

BIOT M02 – 12 Units

Industrial Biotechnology

Prerequisites: MICR M01 and BIOL M11 or BIOT M01

Class Hours: 8 lecture, 12 lab

Designed to give an extensive education and training in industrial biotechnology and contains eight major areas of emphasis. These are plant design, process support, cell culture, microbial fermentation, protein recovery and purification, formulation, fill and packaging, quality control, environmental monitoring and validation. (Same course as BIOL M12). Applies to Associate Degree. Transfer credit: CSU

BIOT M02A – 2 Units

Environmental Control and Process Support

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing of biopharmaceuticals. Presents an overview of the manufacturing process and Introduces environmental control and process support with a focus on Good Laboratory Practices (GLP)/Good Manufacturing Practices (GMP), clean room procedure, monitoring techniques, and required documentation. (Same course as BIOL M12A) Applies to Associate Degree. Transfer credit: CSU

BIOT M02B – 2 Units

Manufacturing: Quality Control and Validation

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing of pharmaceuticals. Introduces validation and quality control. Reviews manufacturing process, including formulation, lyophilization, packaging and filling. Focuses on validation assays, systems evaluations, process testing and reporting. (Same course as BIOL M12B) Applies to Associate Degree. Transfer credit: CSU

BIOT M02C – 3 Units

Manufacturing: Cell Culture and Microbial Fermentation

Prerequisites: None

Class Hours: 1 lecture, 6 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing pharmaceuticals. Introduces cell culture and microbial fermentation. Focuses on bacterial techniques, microbial assessment, mammalian cell culture, bioreactor fermentation, and media preparation. Compares small and large industrial scale cell culture. (Same course as BIOL M12C) Applies to Associate Degree. Transfer credit: CSU

BIOT M02D – 2 Units

Bioprocessing: Recovery and Purification

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing pharmaceuticals. Introduces bioprocessing, recovery, and purification techniques. Focuses on protein separation and purification, chromatography, large-scale recovery, and identity assays. Reviews skills necessary for a successful job search in the field of Biotechnology. (Same course as BIOL M12D) Applies to Associate Degree. Transfer credit: CSU

BIOT M02E – 2 Units

Business Practices and Governmental Regulation

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Skills training in Industrial Biotechnology with emphasis on manufacturing pharmaceuticals. Examines manufacturing from the perspective of company operations, including general building design, logistics, and bioethics. Focuses on business practices and governmental regulations. (Same course as BIOL M12E) Applies to Associate Degree. Transfer credit: CSU

BIOT M50A – 0.5 Unit

Bridge to Biotechnology

Prerequisites: None

Class Hours: 1.5 lab

Designed as a bridge for entry-level and high school students who are interested in the field of biotechnology. Includes practical, hands-on experience with current biotechnology laboratory techniques. (Same course as BIOL M50A) Applies to Associate Degree.

BIOT M80 – 1 to 4 Units

Internship in Biotechnology

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20) Applies to Associate Degree. Transfer credit: CSU

Broadcasting

See courses in Radio/Television

Business

Study in business leads to a wide range of opportunities in a variety of industries such as banking, health care/biotechnology, law, entertainment, defense, computer/electronics, and education, as well as in government and non-profit organizations. Upon completion of the baccalaureate degree, the student will be prepared for a career in specialized areas such as accounting, finance, investments, real estate, marketing, office administration, management, production, operations management, operations research, and statistics. Upon completion of the associate degree, the student will be prepared for various entry-level positions within these same organizations, for promotion from technical and specialty job functions into management positions, and/or for transfer to a baccalaureate program.

Dean

Dan Brown, Phone (805) 378-1427

Full-time Faculty

Jim Allyn, Stephanie Branca, Janice Feingold, Thomas Spraggins, Navreet Sumal

Counselors

Denice Avila, Michael Johnson, Pam Kennedy-Luna, Candace Peyton

Degree & Certificate Options in Business Associate in Science Degree

Associate in Science Degree

To earn an Associate in Science Degree with a major in Business, students complete 28-30.5 specified units, plus General Education Degree Requirements (minimum total = 60 units).

Required Courses	Units
BUS M02AFinancial Accounting I.....	3.0
BUS M02BFinancial Accounting II.....	3.0
BUS M30Introduction to Business and Economics.....	3.0
BUS M31Introduction to Management.....	3.0
BUS M33Business Law.....	3.0
OR	
BUS M34Legal Environment of Business.....	3.0
BUS M39Business Communication.....	3.0
OR	
BUS M28Business English.....	3.0
CIS M16.....Introduction to Information Systems.....	4.0
Units from One of the OPTIONS below.....	6.0-10.0
TOTAL	28.0-32.0

OPTIONS: Choose one of the following options:

Management Option – Choose 6 Units from the Following:

BUS M32Small Business Management.....	3.0
BUS M42Business and Society.....	3.0
BUS M51Human Resources Management.....	3.0
BUS M54Organizational Behavior.....	3.0
OR	

Sales & Marketing Option – Choose 6 Units from the Following:

BUS M35Sales Techniques.....	3.0
BUS M37Marketing.....	3.0
BUS M38Advertising.....	3.0
OR	

Accounting Option – Complete All of the Following:

CIS M14.....10-Key Mastery on the Computer.....	1.0
CIS M24.....Microsoft Excel Part 1.....	1.5
CIS M25.....Microsoft Excel Part 2.....	1.5
BUS M02CManagerial Accounting.....	3.0
BUS M08Accounting with QuickBooks.....	3.0

Associate in Arts Degree

To earn an Associate in Arts Degree with a major in Business, students complete 25 specified units, plus General Education Degree Requirements (minimum total = 60 units).

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
BUS M02AFinancial Accounting I.....	3.0
BUS M02BFinancial Accounting II.....	3.0
BUS M02CManagerial Accounting.....	3.0
BUS M30Introduction to Business and Economics.....	3.0
OR	
ECON M02Principles of Macroeconomics.....	3.0
BUS M33Business Law.....	3.0
OR	
BUS M34Legal Environment of Business.....	3.0
BUS M39Business Communications.....	3.0
CIS M16.....Introduction to Information Systems.....	4.0
ECON M01Principles of Microeconomics.....	3.0
TOTAL	25.0

BUSINESS - Certificate of Achievement

To earn a Certificate of Achievement in Business, students complete 24 specified units that provide an Introduction to the primary disciplines within business as preparation for entering or advancing in the workforce, or for selecting a specific business discipline for more advanced study.

Required Courses	Units
BUS M01AAccounting Procedures I.....	3.0
OR	
BUS M02AFinancial Accounting I.....	3.0
BUS M04Personal Finance.....	3.0
BUS M30Introduction to Business and Economics.....	3.0
BUS M31Introduction to Management.....	3.0
BUS M35Sales Techniques.....	3.0
BUS M37Marketing.....	3.0
BUS M39Business Communications.....	3.0
OR	
BUS M28Business English.....	3.0
CIS M28.....Microsoft Office.....	3.0
TOTAL	24.0

NOTE: Students are encouraged to participate in an internship and may elect to have up to 3 units of internship credit substitute for any one of the above courses.

ACCOUNTING PROCEDURES - Certificate of Completion

To earn a Certificate of Completion in Accounting Procedures, students complete 12 specified units that provide basic training in accounting for entry level employment.

Required Courses	Units
BUS M01AAccounting Procedures I.....	3.0
BUS M01BAccounting Procedures II.....	3.0
BUS M08Accounting with QuickBooks.....	3.0
CIS M24.....Microsoft Excel Part I.....	1.5
CIS M25.....Microsoft Excel Part II.....	1.5
TOTAL	12.0

NOTE: Add 10 specified units to this Accounting Procedures Certificate of Completion and earn the Accounting Procedures Certificate of Achievement below.

ACCOUNTING PROCEDURES - Certificate of Achievement

To earn a Certificate of Achievement in Accounting Procedures, students complete 22 specified units that provide basic training in accounting and related disciplines for entry or promotion into higher-level accounting positions.

Required Courses	Units
BUS M01AAccounting Procedures I.....	3.0
BUS M01BAccounting Procedures II.....	3.0
BUS M08Accounting with QuickBooks.....	3.0
BUS M30Introduction to Business and Economics.....	3.0
BUS M28Business English.....	3.0
OR	
BUS M39Business Communications.....	3.0
BUS M56Business and Professional Speech.....	3.0
OR	
COMM M01Introduction to Speech.....	3.0
CIS M14.....10-Key Mastery on the Computer.....	1.0
CIS M24.....Microsoft Excel Part I.....	1.5
CIS M25.....Microsoft Excel Part II.....	1.5
TOTAL	22.0

ACCOUNTING PRINCIPLES - Certificate of Completion

To earn a Certificate of Completion in Accounting Principles, students complete 12 or 13 specified units that provide basic training in accounting for entry-level positions in accounting, transfer to a baccalaureate program in accounting, or basic accounting knowledge needed for advancement into various management positions.

Required Courses	Units
BUS M02AFinancial Accounting I.....	3.0
BUS M02BFinancial Accounting II.....	3.0
BUS M02CManagerial Accounting.....	3.0
BUS M08Accounting with QuickBooks.....	3.0
OR	
CIS M16.....Introduction to Information Systems.....	4.0
TOTAL	12.0 or 13.0

BUSINESS COMMUNICATION - Certificate of Completion

To earn a Certificate of Completion in Business Communication, students complete 12 or 13 specified units that offer skills necessary for effective business communication.

Required Courses	Units
BUS M28Business English.....	3.0
OR	
BUS M39Business Communication.....	3.0
BUS M56Business/Professional Speech.....	3.0
OR	
COMM M01Introduction to Speech.....	3.0
CIS M28.....Microsoft Office.....	3.0
ENGL M01AEnglish Composition.....	4.0
OR	
ENGL M02Introduction to College Writing.....	3.0
TOTAL	12.0 or 13.0

MANAGEMENT - Certificate of Completion

To earn a Certificate of Completion in Management, students complete 12 specified units that offer fundamental skills often needed for entry-level management positions.

Required Courses	Units
BUS M30Introduction to Business and Economics.....	3.0
BUS M31Introduction to Management.....	3.0
BUS M42Business and Society.....	3.0
BUS M51Human Resources Management.....	3.0
OR	
BUS M54Organizational Behavior.....	3.0
TOTAL	12.0

NOTE: Add 15-16 specified units to this Management Certificate of Completion and earn the Management Certificate of Achievement below.

MANAGEMENT - Certificate of Achievement

To earn a Certificate of Achievement in Management, students complete 27 or 28 specified units to prepare for entry or promotion into higher-level management positions, or to transfer to a baccalaureate program in management.

Required Courses.....	Units
BUS M30Introduction to Business and Economics.....	3.0
BUS M31Introduction to Management.....	3.0
BUS M32Small Business Management.....	3.0
BUS M33Business Law.....	3.0
OR	
BUS M34Legal Environment of Business.....	3.0
BUS M28Business English.....	3.0
OR	
BUS M39Business Communications.....	3.0
BUS M42Business and Society.....	3.0
BUS M51Human Resources Management.....	3.0
BUS M54Organizational Behavior.....	3.0
CIS M16Introduction to Information Systems.....	4.0
OR	
CIS M28.....Microsoft Office.....	3.0
TOTAL	27.0 or 28.0

MARKETING - Certificate of Completion

To earn a Certificate of Completion in Marketing, students complete 12 specified units to prepare for entry-level positions in marketing or advertising.

Required Courses.....	Units
BUS M30Introduction to Business and Economics.....	3.0
BUS M31Introduction to Management.....	3.0
BUS M37Marketing.....	3.0
BUS M38Advertising.....	3.0
OR	
BUS M35Sales Techniques.....	3.0
TOTAL	12.0

NOTE: Add 15–16 specified units to this Marketing Certificate of Completion and earn the Marketing/Sales Certificate of Achievement below.

SALES - Certificate of Completion

To earn a Certificate of Completion in Sales, students complete 12 specified units to prepare for entry-level sales positions.

Required Courses.....	Units
BUS M30Introduction to Business and Economics.....	3.0
BUS M35Sales Techniques.....	3.0
BUS M37Marketing.....	3.0
BUS M39Business Communications.....	3.0
TOTAL	12.0

NOTE: Add 15-16 specified units to this Sales Career Certificate of Completion and earn the Marketing/Sales Certificate of Achievement below.

MARKETING/SALES - Certificate of Achievement

To earn a Certificate of Achievement in Marketing/Sales, students complete 27 or 28 specified units that offer training in marketing, sales, and advertising for those seeking positions as marketing or sales managers or transferring to a baccalaureate program.

Required Courses.....	Units
BUS M30Introduction to Business and Economics.....	3.0
BUS M31Introduction to Management.....	3.0
BUS M33Business Law.....	3.0
OR	
BUS M34Legal Environment of Business.....	3.0
BUS M35Sales Techniques.....	3.0
BUS M37Marketing.....	3.0
BUS M38Advertising.....	3.0

BUS M39Business Communications.....	3.0
OR	
BUS M28Business English.....	3.0
BUS M42Business and Society.....	3.0
OR	
BUS M54Organizational Behavior.....	3.0
CIS M16.....Introduction to Information Systems.....	4.0
OR	
CIS M28.....Microsoft Office.....	3.0
TOTAL	27.0 or 28.0

SMALL BUSINESS - Certificate of Completion

To earn a Certificate of Completion in Small Business, students complete 12 specified units to prepare for starting or managing a small business.

Required Courses.....	Units
BUS M01AAccounting Procedures I.....	3.0
BUS M30Introduction to Business and Economics.....	3.0
BUS M32Small Business Management.....	3.0
BUS M37Marketing.....	3.0
TOTAL	12.0

NOTE: Add 18 or 19 specified units to this Small Business Career Certificate of Completion and earn the Management Certificate of Achievement or the Marketing/Sales Certificate of Achievement above.

Business Courses**BUS M01A – 3 Units****Accounting Procedures I**

Prerequisites: None

Recommended Prep: MATH M09 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Covers the fundamentals of double-entry bookkeeping and the debit/credit method of recording transactions. Includes the full bookkeeping cycle from recording transactions to preparing financial statements. Emphasizes service enterprises operating as sole proprietorships. Applies to Associate Degree.

BUS M01B – 3 Units**Accounting Procedures II**

Prerequisites: BUS M01A

Class Hours: 3 lecture

Continues the fundamentals of double-entry bookkeeping and the debit/credit method of recording transactions. Emphasizes merchandising enterprises operating as sole proprietorships. Includes purchases and sales of merchandise, inventory adjustments in both periodic and perpetual inventory systems, financial statements for merchandising enterprises, and expenditures for plant and equipment. Applies to Associate Degree.

BUS M02A – 3 Units**Financial Accounting I**

Prerequisites: None

Recommended Prep: BUS M01A and BUS M30/ECON 30, and MATH M09, and BUS M28 or ENGL M02

Class Hours: 3 lecture

Examines financial accounting from both the user and preparer perspective, emphasizing public corporations. Explores what accounting is, why it is important, how it is used in making business decisions, and how to record and present information. Focuses on operating activities. Covers the accounting cycle, classified financial statements, information systems, internal control, and ethical issues. Complies with the California IMPAC (Intersegmental Major Preparation Articulated Curriculum) Project Accounting Committee recommendations. Applies to Associate Degree. Transfer credit: CSU; UC (BUS M02A combined with BUS M02B: maximum credit, one course)

BUS M02B – 3 Units **Financial Accounting II**

Prerequisites: BUS M02A
Class Hours: 3 lecture

Continues examining financial accounting related primarily to public corporations. Focuses on investing and financing activities. Explores long-term asset acquisition/use, short and long-term debt, stockholders' equity, intercompany investments, preparation and use of the Statement of Cash Flows, and financial statement analysis. Complies with the California IMPAC (Intersegmental Major Preparation Articulated Curriculum) Project Accounting Committee Recommendations. Applies to Associate Degree. Transfer credit: CSU; UC (BUS M02B combined with BUS M02A: maximum credit, one course)

BUS M02C – 3 Units **Managerial Accounting**

Prerequisites: BUS M02A and BUS M02B (NOTE: BUS M02B may be taken concurrently)
Class Hours: 3 lecture

Examines how managers use accounting information in decision-making, planning, directing operations, and controlling. Focuses on cost terms and concepts, cost behavior, cost structure, cost-volume-profit analysis, profit planning, standard costs, operational and capital budgeting, cost control, accounting for manufacturing costs, and ethics. Complies with the California IMPAC (Intersegmental Major Preparation Articulated Curriculum) Project Accounting Committee recommendations. Applies to Associate Degree. Transfer credit: CSU; UC

BUS M04 – 3 Units **Personal Finance**

Prerequisites: None
Recommended Prep: BUS M28 or ENGL M02
Class Hours: 3 lecture

Covers the personal decision-making tools related to spending, saving, borrowing, and investing decisions that individuals make during their life. The course includes investing in stocks, bonds, real estate, money management, career planning, consumer credit, banking services, housing, insurance, income taxes, and planning for retirement. The course provides the information and decision-making tools needed to plan and implement successful personal financial planning activities. Applies to Associate Degree. Transfer credit: CSU

BUS M05 – 3 Units **Fundamentals of Investing**

Prerequisites: None
Recommended Prep: BUS M04
Class Hours: 3 lecture

Introduces investment planning and strategy to those with little or no familiarity with investing. Covers the fundamentals of structuring a portfolio to minimize risk and earn an acceptable rate of return. Explores the basics involved in allocating funds available for investment between stocks, bonds, real estate, mutual funds, money market instruments, commodities, and cash. Includes different styles of investments such as income, growth, and momentum. Applies to Associate Degree. Transfer credit: CSU

BUS M07 – 3 Units **Personal Income Tax Preparation**

Prerequisites: None
Class Hours: 3 lecture

Covers the basic concepts of federal taxation as they relate to individuals and small businesses (sole proprietorships). Topics include: income inclusions and exclusions, itemized deductions, other deductions and losses, passive activities, property basis and capital gains and losses, business income and expenses, etc. Emphasizes personal tax return preparation. Limited coverage of tax planning issues and California state income tax issues. Applies to Associate Degree. Transfer credit: CSU

BUS M08 – 3 Units **Accounting with QuickBooks**

Prerequisites: BUS M01A or BUS M02A
Class Hours: 3 lecture

Introduces the use of QuickBooks in a computerized accounting system. Reinforces basic accounting concepts and procedures and their relationship to QuickBooks. Provides hands-on experience including setting up a new company. (Same course as CIS M18) Applies to Associate Degree.

BUS M22A/B – 1 to 3 Units **Independent Studies in Business**

Prerequisites: A previous course in Business
Class Hours: 1 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of business through research, lab work or field trips. Includes one-on-one work with instructor. Requires field trips. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

BUS M28 – 3 Units **Business English**

Prerequisites: None
Class Hours: 3 lecture

Develops fundamentals and mechanics of business English usage, reviewing grammar, sentence structure, punctuation, proofreading, and written expression. Provides background for writing business letters and reports. Applies to Associate Degree. Transfer credit: CSU

BUS M30 – 3 Units **Introduction to Business and Economics**

Prerequisites: None
Recommended Prep: BUS M28 or ENGL M02
Class Hours: 3 lecture

Examines the basic concepts of business and the application of economic principles to the operation of business. Explores economic systems, global markets, ethics, entrepreneurship, management, human resources, marketing, accounting, finance, securities markets, money supply, the impact of information technology on business, and personal financial planning. (Same course as ECON M30.) Applies to Associate Degree. Transfer credit: CSU; UC

BUS M31 – 3 Units

Introduction to Management

Prerequisites: None

Recommended Prep: BUS M30/ECON M30 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Examines the fundamental concepts of management as applied to the performance of organizations, teams, and individuals. Addresses topics such as strategic planning, organizational design, the evolving role of management, leadership, and business ethics in the context of a changing and multi-cultural/international environment. Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 45 contact hours. Applies to Associate Degree. Transfer credit: CSU

BUS M32 – 3 Units

Small Business Management

Prerequisites: None

Recommended Prep: BUS M30/ECON M30 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Focuses on establishing and managing a small business, with emphasis on planning, financing, staffing, marketing, site selection, budgeting, legal concerns, and regulatory issues. Considers the rewards and perils of owning a business. The Child Development Permit of Title 5 ECE/CD programs requires this course for Site Supervisors (Option 1) and Program Directors. (Same course as Child Development M25: Administration in ECE 2.) Applies to Associate Degree. Transfer credit: CSU

BUS M33 – 3 Units

Business Law

Prerequisites: None

Recommended Prep: BUS M28 or ENGL M02

Class Hours: 3 lecture

Examines the fundamental legal principles pertaining to business transactions. Focuses on contract law. Explores the origins of legal systems and procedures, including torts, basics of criminal law, sales and leases, agency, and ethics. Applies to Associate Degree. Transfer credit: CSU; UC (BUS M33 and BUS M34 combined: maximum credit, one course)

BUS M34 – 3 Units

Legal Environment of Business

Prerequisites: None

Recommended Prep: BUS M28 or ENGL M02

Class Hours: 3 lecture

Examines law as the foundation of business with a focus on understanding the legal challenges and difficulties which businesses face. Explores topics such as a property-based legal system, the court system, constitutional regulation of business, contracts, torts, criminal law and business, forms of business organization, competition and anti-trust, employment and labor laws, securities regulation, and ethical issues. Applies to Associate Degree. Transfer credit: CSU; UC (BUS M33 and BUS M34 combined: maximum credit, one course)

BUS M35 – 3 Units

Sales Techniques

Prerequisites: None

Recommended Prep: BUS M30/ECON M30 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Introduces principles of personal selling, including strategies for long-term selling relationships. Focuses on adaptive selling techniques, prospecting, handling objectives, gaining commitment, negotiation, and closing the sale. Applies to Associate Degree. Transfer credit: CSU

BUS M37 – 3 Units

Marketing

Prerequisites: None

Recommended Prep: BUS M30/ECON M30 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Introduces basic concepts and practices of modern marketing, including building customer relationships, strategic planning, market research, buyer behavior, market segmentation, target marketing, new product development, pricing, channels of distribution, retailing, integrated marketing communication, global marketing, marketing in the Internet Age, and ethics. Applies to Associate Degree. Transfer credit: CSU

BUS M38 – 3 Units

Advertising

Prerequisites: None

Recommended Prep: BUS M30/ECON M30 and BUS M37 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Examines the role of advertising in business and Introduces an integrated approach to market communications. Analyzes the various forms of communication including print, radio and broadcast advertising, sales promotion, public relations, and direct response marketing. Explores influences on the consumer audience as well as basic strategies for research, media planning and buying, ad creation, and the role of advertising agencies. Applies to Associate Degree. Transfer credit: CSU

BUS M39 – 3 Units

Business Communications

Prerequisites: None

Recommended Prep: BUS M28 or ENGL M01 or ENGL M02 and Word processing skill

Class Hours: 3 lecture

Introduces effective business communications skills by preparing and analyzing business letters, reports, and oral presentations. Emphasizes gathering, organizing, analyzing, and presenting information for decision making, interviewing and negotiating in a multicultural arena. Applies to Associate Degree. Transfer credit: CSU

BUS M40 – 3 Units

International Business

Prerequisites: None

Recommended Prep: BUS M30/ECON M30 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Examines how political, economic, and cultural differences affect global business activities. Covers issues related to economic theories, government policies, foreign exchange, and monetary systems and their impact on the strategy and structure of international business. Focuses on the managerial implications of production, human resources, research and development, marketing, accounting, and financing in a global environment. Applies to Associate Degree. Transfer credit: CSU

BUS M42 – 3 Units

Business and Society

Prerequisites: None

Recommended Prep: BUS M30/ECON M30 and BUS M28 or ENGL M02

Class Hours: 3 lecture

Explores management's role in contemporary society and the interrelationships among business, government, and society. Addresses the economic, social, ethical, and technological factors that affect business. Helps managers develop the framework, tools, and procedures that enable businesses to become responsible citizens. (Same course as HUM M42.) Applies to Associate Degree. Transfer credit: CSU

BUS M45 – 3 Units Personal Insurance

Prerequisites: None
Class Hours: 3 lecture

Introduces the basic concepts related to Property and Liability Insurance. Covers the fundamentals of insurance including types of insurers; the insurance industry and how it is regulated; insurance company operations such as marketing, underwriting and claims; insurance contracts; personal loss exposures; risk management; and insurance products. Applies to Associate Degree. Transfer credit: CSU

BUS M51 – 3 Units Human Resources Management

Prerequisites: None
Recommended Prep: BUS M30 and BUS M28 or ENGL M02
Class Hours: 3 lecture

Examines how to obtain and develop an efficient work force. Includes human resource planning, recruitment, selection, placement, training, development, evaluation, termination, benefits, and safety issues. Applies to Associate Degree. Transfer credit: CSU

BUS M54 – 3 Units Organizational Behavior

Prerequisites: None
Recommended Prep: BUS M30 and BUS M28 or ENGL M02
Class Hours: 3 lecture

Examines organizational behavior in the contemporary workplace and how it relates to organizational effectiveness. Focuses on understanding organizational culture, how individual employee differences impact the organization, employee motivation, improving performance, effective teamwork, conflict resolution, developing leadership, managing change, communications within the organization, and the challenges of global management. Applies to Associate Degree. Transfer credit: CSU

BUS M56 – 3 Units Business and Professional Speech

Prerequisites: None
Class Hours: 3 lecture

Focuses on effective speaking skills needed in leadership positions, including an awareness of presentation techniques, group dynamics, argumentation and persuasion strategies, organizational structure, and interpersonal situations in the business environment. Builds on individual needs and interests. (Same course as COMM M56.) Applies to Associate Degree. Transfer credit: CSU

BUS M60A-Z – 1 to 3 Units Topics in Business

Prerequisites: To be determined
Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Transfer credit: determined by transfer institution.

BUS M80 – 1 to 4 Units Internship in Business

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.
Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU

BUS M89AZ – 0.5 to 3 Units Institutes in Business

Prerequisites: None
Class Hours: As arranged

Series of special lectures and discussions on selected topics of interest in business/economics. Provided as needed. Series only offered credit/no-credit. Applies to Associate Degree.

Career Development

See Courses in Counseling and Work Experience
Visit the Career Transfer Center in the Administration Building

Chemistry

A wide range of opportunities awaits the chemist in business, industry, government, and education. Approximately three fourths of all chemists are employed by private industry in such fields as petroleum, pharmaceuticals, polymers, primary metals, electrical equipment, aerospace, paper, food, and rubber.

Dean

Kim Hoffmans, Phone (805) 378-1459

Full-time Faculty

Eugene Berg, Deanna Franke, Steve Joiner, Robert Keil, Omar Torres

Counselors

Donna Proske-Allyn, Edna Ingram, Candace Peyton, Danita Redd

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536.

Degree Options in Chemistry

Associate in Arts Degree

To earn an Associate Degree with a major in Chemistry, students complete 33 specified units, plus General Education Degree Requirements. These major requirements optimize preparation for upper-division course work for advanced degrees in Chemistry offered by four-year institutions. Since the course work in chemistry is sequential, students may spend less time earning an Associate and/or Bachelor's Degree by deferring some of the university general education requirements until their junior and senior years and by giving priority to the requirements for a major in chemistry. In addition, earning this degree suggests an achievement of technical skills that may be helpful in seeking immediate employment.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
CHEM M01A.....General Chemistry I.....	6.0
CHEM M01B.....General Chemistry II.....	6.0
CHEM M07A.....General Organic Chemistry I.....	5.0
MATH M16A.....Applied Calculus I.....	3.0
MATH M16B.....Applied Calculus II.....	3.0
PHYS M10A.....General Physics I.....	4.0
PHYS M10AL.....General Physics I Lab.....	1.0
PHYS M10B.....General Physics II.....	4.0
PHYS M10BL.....General Physics II Lab.....	1.0
TOTAL	33.0

See General Education Degree Requirements and Transfer Information.

Associate in Science Degree

To earn an Associate in Science Degree with a major in Chemistry, students complete 42 specified units, plus General Education Degree Requirements. These major requirements optimize preparation for upper division course work for advanced degrees in Chemistry offered by four-year institutions. Since the course work in chemistry is sequential, students may spend less time earning an Associate and/or Bachelor's Degree by deferring some of the university general education requirements until their junior and senior years and by giving priority to the requirements for a major in chemistry. In addition, earning this degree suggests an achievement of technical skills that may be helpful in seeking immediate employment.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
CHEM M01A.....General Chemistry I.....	6.0
CHEM M01B.....General Chemistry II.....	6.0
CHEM M07A.....General Organic Chemistry I.....	5.0
CHEM M07B.....General Organic Chemistry II.....	5.0
MATH M25A.....Calculus with Analytic Geometry I.....	5.0
MATH M25B.....Calculus with Analytic Geometry II.....	5.0
PHYS M20A.....Mechanics of Solids and Fluids.....	4.0
PHYS M20AL.....Mechanics of Solids and Fluids Lab.....	1.0
PHYS M20B.....Thermodynamics, Electricity and Magnetism.....	4.0
PHYS M20BL.....Thermodynamics, Electricity and Magnetism Lab.....	1.0
TOTAL	42.0

See General Education Degree Requirements and Transfer Information.

Chemistry Courses

CHEM M01A – 6 Units

General Chemistry I

Prerequisites: MATH M03 or equivalent college course.

Class Hours: 5 lecture, 3 lab

Study of atomic theory and stoichiometry; nomenclature and chemical reactions; thermochemistry; quantum theory and the electronic structure of atoms; chemical bonding and molecular structure; physical behavior of gases; states of matter and phase equilibria; and solutions. Laboratory activities address spectroscopy; distillations; quantitative and qualitative analyses; titrations; thermochemistry; gravimetric and volumetric analyses; and colligative properties. Applies to Associate Degree. Transfer credit: CSU; UC (CHEM M12 or equivalent college course or one year of high school chemistry)

CHEM M01B – 6 Units

General Chemistry II

Prerequisites: CHEM M01A or equivalent college course and MATH M05 or equivalent college course

Class Hours: 5 lecture, 3 lab

Study of chemical kinetics; phase equilibria; equilibria in gases and solutions; acids and bases; solubility and complex ions; thermodynamics; electrochemistry; qualitative and quantitative chemical analyses; and an overview of nuclear chemistry, coordination chemistry and ligand field theory, and organic chemistry. Laboratory activities address chemical kinetics; equilibria; thermodynamics; spontaneous oxidation-reduction reactions and electrolysis; selective precipitation; titrations; and exposure to ultraviolet, infrared, and nuclear magnetic resonance spectroscopy. Applies to Associate Degree. Transfer credit: CSU; UC

CHEM M07A – 5 Units

General Organic Chemistry I

Prerequisites: CHEM M01B

Class Hours: 3 lecture, 6 lab

Focuses on molecular structure, chemical and physical properties, and the preparation and reactivity of organic molecules with an emphasis on reaction mechanisms, synthesis, structure determination and applications. Laboratory experience involves using the appropriate methods, techniques, and instrumentation for the synthesis, purification and identification of organic compounds discussed in the lecture portion. (This is the first semester of a one-year course to fulfill the organic chemistry requirements of those majors requiring a full year of organic chemistry.) Applies to Associate Degree. Transfer credit: CSU; UC

CHEM M07B – 5 Units

General Organic Chemistry II

Prerequisites: CHEM M07A or equivalent college course

Class Hours: 3 lecture, 6 lab

Continues study of the functional groups such as carboxylic acids and their derivatives; carbonyls, amines and aromatics. Emphasizes reaction mechanism, synthesis, and structure determination using nuclear magnetic resonance and infrared spectroscopy. Also introduces aspects of biochemistry including the study of proteins, carbohydrates, and nucleic acids. Laboratory experience involves multi-step synthetic routes, chromatography, and applications of basic techniques. Applies to Associate Degree. Transfer credit: CSU; UC

CHEM M11 – 5 Units

Foundations of General, Organic, and Biochemistry

Prerequisites: MATH M01

Class Hours: 4 lecture, 3 lab

General, organic, and biological chemistry with an emphasis on medical applications; designed for students who are allied health science majors. General chemistry topics include the modern view of the atom, molecules, chemical compounds, reactions, and calculations. Organic and biochemistry topics include hydrocarbons, alcohols, aldehydes and ketones, amines, carboxylic acids and their derivatives, carbohydrates, lipids, proteins, nucleic acids, and metabolism. This course is not intended for students planning to take Chemistry M01A. Applies to Associate Degree. Transfer credit: CSU; UC

CHEM M12 – 5 Units Introductory Chemistry I

Prerequisites: MATH M01

Class Hours: 4 lecture, 3 lab

Introduction to basic principles of inorganic chemistry with reference to measurement, chemical nature of matter and energy, atomic theory, elements and compounds, periodic table, bonding, molecular structure, nomenclature, chemical reactions, equations, and calculations. Course fulfills prerequisites for CHEM M01A and CHEM M13. Applies to Associate Degree. Transfer credit: CSU; UC (No credit if taken after CHEM M01A).

CHEM M12H – 5 Units Honors: Introductory Chemistry I

Prerequisites: MATH M01

Class Hours: 4 lecture, 3 lab

Introduces basic principles of inorganic chemistry with reference to measurement, chemical nature of matter and energy, atomic theory, elements and compounds, periodic table, bonding, molecular structure, nomenclature, chemical reactions, equations, and calculations. Honors work challenges students to be more analytical and creative through expanded assignments, real-world applications and enrichment opportunities. Applies to Associate Degree. Transfer credit: CSU; UC

CHEM M13 – 5 Units Introductory Chemistry II

Prerequisites: CHEM M12 or one year of high school chemistry

Class Hours: 4 lecture, 3 lab

Introduces fundamental concepts of organic and biochemistry, including structure, nomenclature and reactions; metabolism of carbohydrates, lipids, proteins, and nucleic acids; and kinetics, equilibria, electrochemistry. Explores applications to agriculture, earth science, nutrition, and health sciences. Applies to Associate Degree. Transfer credit: CSU; UC (no credit if taken after M07A/B)

CHEM M22A/B – 0.5 to 3 Units Independent Studies in Chemistry

Prerequisites: A previous course in Chemistry

Class Hours: 1 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of chemistry through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

CHEM M80 – 1 to 4 Units Internship in Chemistry

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

Child Development

The Child Development Program prepares students for an associate degree in Child Development or for completion of certificates of achievement in Preschool, Infant/Toddler or School Age Child Care, Family Child Care Provider Certificate, and the Child Development Permit levels of Assistant, Associate Teacher, Teacher, Master Teacher, Site Supervisor and Program Director. Students develop knowledge of subject matter and skills needed for success in transferring to a college or university as well as success in a variety of careers in Child Development, Education or Social Services.

Dean

Tim McGrath, Phone (805) 378-1445

Full-time Faculty

Kristi Almeida-Bowin and Cynthia Sheaks-McGowan

Counselors

Anitra Evans, Pam Kennedy-Luna

Degree, Certificate of Achievement and Permit Options in Child Development

To earn an Associate in Science Degree with a major in Child Development, students complete 27 specified units, plus General Education Degree Requirements.

In addition to General Education Degree Requirements, complete the following:

Required Courses.....	Units
CD M01.....Introduction to Careers in ECE.....	1.0
CD M02.....Human Development.....	3.0
CD M03.....Child, Family & Community.....	3.0
CD M04.....Practicum 1 — Observation.....	1.5
CD M04L.....Practicum 1 — Lab.....	0.5
CD M05.....Equity Issues in ECE.....	3.0
Units from List of RECOMMENDED COURSES.....	6.0
Units from One of the RECOMMENDED OPTIONS.....	9.0
TOTAL.....	27.0

Recommended Courses: Select Two Courses

CD M06.....Reading and Writing in ECE.....	3.0
CD M07.....Music in ECE.....	3.0
CD M08.....Art in ECE.....	3.0
CD M09.....Science and Math in ECE.....	3.0
CD M10.....Language Arts in ECE.....	3.0

Recommended Options: Select One Option

Infant/Toddler Options (complete all units specified)

CD M15.....Infant Studies.....	3.0
CD M17.....Practicum 4 — Infant/Toddler.....	3.0
CD M23.....Child Nutrition, Health & Safety.....	2.0
CD M60L.....Parent Conferencing.....	1.0

OR

Preschool Option (complete all units specified)

CD M11.....Programs in ECE.....	3.0
CD M12.....Practicum 2 — Participation.....	2.0
CD M12L.....Practicum 2 — Lab.....	1.0
CD M13.....Practicum 3 — Preschool.....	3.0

OR

School Age Option (complete all units specified)

CD M16.....Behavior Management.....	3.0
CD M19.....School Age Programs.....	3.0
CD M20.....Practicum 5 — School Age.....	3.0

See General Education Degree Requirements and Transfer Information.

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536.

Certificates of Achievement:

Infant/Toddler (more than 18 units)

To earn an Infant/Toddler Certificate of Achievement, students complete 24 specified units that address working in settings with infants and toddlers and their parents.

Required Courses	Units
CD M01Introduction to Careers in ECE	1.0
CD M02Human Development	3.0
CD M03Child, Family & Community	3.0
CD M04Practicum 1 — Observation	1.5
CD M04LPracticum 1 — Lab	0.5
CD M15Infant Studies.....	3.0
CD M17Practicum 4 —Infant/Toddler.....	3.0
CD M23Child Nutrition, Health & Safety	2.0
CD M60LParent Conferencing	1.0
Plus Two of the Following 3-Unit Courses	6.0
CD M06Reading and Writing in ECE	
CD M07Music in ECE	
CD M08Art in ECE	
CD M09Science and Math in ECE	
CD M10Language Arts in ECE	
TOTAL	24.0

Preschool (more than 18 units)

To earn a Preschool Certificate of Achievement, students complete 24 specified units that address working with young children in public and private early childhood settings.

Required Courses	Units
CD M01Introduction to Careers in ECE	1.0
CD M02Human Development	3.0
CD M03Child, Family & Community	3.0
CD M04Practicum 1 — Observation	1.5
CD M04LPracticum 1 — Lab	0.5
CD M11Programs in ECE.....	3.0
CD M12Practicum 2 — Participation	2.0
CD M12LPracticum 2 — Lab 1.....	1.0
CD M13Practicum 3 — Preschool	3.0
Plus Two of the Following 3-Unit Courses	6.0
CD M06Reading and Writing in ECE	
CD M07Music in ECE	
CD M08Art in ECE	
CD M09Science and Math in ECE	
CD M10Language Arts in ECE	
TOTAL	24.0

School Age Child Care (more than 18 units)

To earn a School Age Child Certificate of Achievement, students complete 24 specified units that address working in School Age Child Care settings such as Family Day Care, Recreation Programs, and Before- and After-School Programs. Qualified students may also progress to administrative positions as directors of School Age Programs.

Required Courses	Units
CD M01Introduction to Careers in ECE	1.0
CD M02Human Development	3.0
CD M03Child, Family & Community	3.0
CD M04Practicum 1 — Observation	1.5
CD M04LPracticum 1 — Lab	0.5
CD M16Behavior Management	3.0
CD M19School Age Programs	3.0
CD M20Practicum 5 — School Age	3.0

Plus Two of the Following 3-Unit Courses	6.0
CD M06Reading and Writing in ECE	
CD M07Music in ECE	
CD M08Art in ECE	
CD M09Science and Math in ECE	
CD M10Language Arts in ECE	
TOTAL	24.0

Basic CORE courses required prior to entry level employment and in a preschool.

Child Development Associate Teacher Permit/ Certificate (less than 18 units)

This permit authorizes the holder to provide service in the care, development and instruction of children in a childcare and development program and to supervise a Child Development Assistant.

Required Courses	Units
CD M02Human Development.....	3.0
CD M03Child, Family and Community	3.0
CD M11Programs in ECE.....	3.0
Plus One of the Following 3-Unit Courses	3.0
CD M06Reading and Writing in ECE	
CD M07Music in ECE	
CD M08Art in ECE	
CD M09Science and Math in ECE	
CD M10Language Arts in ECE	
TOTAL	12.0

Also required before application for Child Development Associate Teacher Permit: Completion of 50 days of experience in an instructional capacity in a childcare and development program, working at least 3 hours per day within the last 2 years. (Experience may include paid and/or volunteer work.)

Child Development Courses

CD M01 – 1 Unit

Introduction to Careers in ECE

Prerequisites: None
Class Hours: 1 lecture

Focuses on the vast array of career options that are available to the Child Development major. Career information and educational requirements, educational services, the child development permit matrix and exploration of the early childhood career lattice will be reviewed. Applies to Associate Degree. Transfer credit: CSU

CD M02 – 3 Units

Human Development

Prerequisites: None
Class Hours: 3 lecture

Presents a study of child growth and development from conception through adolescence within the family and cultural context. Includes focus on physical, cognitive and psychosocial development, both typical and atypical. Students will be introduced to theories, theorists, research and applications through discussion, observation and writing assignments. Applies to Associate Degree. Transfer credit: CSU; UC (CD M02 combined with PSY M07: maximum credit, one course)

CD M03 – 3 Units **Child, Family & Community**

Prerequisites: None
Class Hours: 3 lecture

Study of environmental influences on children and families. The core components will include socialization over the lifespan; status of children in society; diverse family structures; family interpersonal relationship; schools and other educational opportunities and mass media influences. Will also include influences of age, gender and ability, race, culture, ethnic and socio-economic factors; parenting styles and social challenges related to children and families. Students will explore the impact of violence and abuse on children and the family and public policy issues relating to children and families. Applies to Associate Degree. Transfer credit: CSU

CD M04 – 1.5 Units **Practicum 1 - Observation**

Prerequisites: None
Corequisite: CD M04L
Recommended Prep: Completion of or concurrent enrollment in CD M02.
Class Hours: 1.5 lecture

Provides a framework to introduce assessment of children in early childhood settings through observation of children at play using understandings about children to inform teaching practice. Anecdotal records, rating systems, and multiple assessment strategies are explored. The course focuses on the appropriate use of assessment strategies to document growth, play, and learning to join with families in promoting children's success. Standards-based assessment is used to inform teaching practice and to ensure developmentally appropriate curriculum. Applies to Associate Degree. Transfer credit: CSU

CD M04L – 0.5 Units **Practicum 1 Lab**

Prerequisites: Proof of a negative TB clearance
Corequisite: CD M04
Recommended Prep: Completion of or concurrent enrollment in CD M02.
Class Hours: 1.5 lab

Analysis of child behavior in a designated child development center through direct observation or equivalent multimedia. Applies observation techniques presented in CD M04 to early childhood teaching practices. Requires use of specific observation tools to observe children's development and their interactions with adults, children, materials, and activities leading to completion of a variety of observation formats. Applies to Associate Degree. Transfer credit: CSU

CD M05 – 3 Units **Equity Issues in ECE**

Prerequisites: None
Class Hours: 3 lecture

Explore personal prejudices and biases through the examination of the principles of equity in the areas of family lifestyles, economics, gender, special needs and culture/ethnicity. Applies to Associate Degree. Transfer credit: CSU

CD M06 – 3 Units **Reading and Writing in ECE**

Prerequisites: None
Recommended Prep: CD M02
Class Hours: 3 lecture

Transforms practice in classrooms to reflect the most current knowledge about how young children learn to read and write. Includes the developmental continuum and assessment of reading, writing, talking, playing and learning the code. Applies to Associate Degree. Transfer credit: CSU

CD M07 – 3 Units **Music in ECE**

Prerequisites: None
Recommended Prep: CD M02
Class Hours: 3 lecture

Introduces creative movement, dance, rhythm, and song as essential components of the physical, social, emotional, creative and cognitive development of young children. Focuses on critical analysis of developmentally appropriate activities and appreciation of diversity. Encourages integration and application of music throughout the curriculum. Applies to Associate Degree. Transfer credit: CSU

CD M08 – 3 Units **Art in ECE**

Prerequisites: None
Recommended Prep: CD M02
Class Hours: 3 lecture

Provides a study of the importance of art in the young child's educational experience and introduces developmentally appropriate art curriculum. It reviews art as an essential component of physical, social, emotional, creative and cognitive growth. Focuses on integration, presentation and evaluation of art activities, media and resources throughout the curriculum. Applies to Associate Degree. Transfer credit: CSU

CD M09 – 3 Units **Science and Math in ECE**

Prerequisites: None
Recommended Prep: CD M02
Class Hours: 3 lecture

Introduces theoretically sound and developmentally appropriate science and math curriculum. Emphasizes the facilitation of the inquiry approach to experiencing science and math as well as the development and evaluation of curricular materials. Applies to Associate Degree. Transfer credit: CSU

CD M10 – 3 Units **Language Arts in ECE**

Prerequisites: None
Recommended Prep: CD M02
Class Hours: 3 lecture

Introduces current research in children's literature and language arts and demonstrates theoretical classroom applications. Emphasizes evaluation of developmentally appropriate experiences and materials that support language as a tool allowing communication, creativity, and logical thinking. Applies to Associate Degree. Transfer credit: CSU

CD M11 – 3 Units **Programs: Preschool**

Prerequisites: None
Recommended Prep: CD M01, CD M02
Class Hours: 3 lecture

Reviews history and philosophies of early childhood education, introducing developmentally appropriate practices, career paths, teacher's role, learning theories, classroom environment and management, curriculum development and lesson plans. Applies to Associate Degree. Transfer credit: CSU

CD M12 – 2.5 Units**Practicum 2 - Participation**

Prerequisites: CD M04 and CD M04L (may be concurrent) both with a minimum grade of C. Requires proof of negative TB clearance

Corequisites: CD M12L, all with a minimum grade of C

Recommended Prep: CD M02, CD M11 all with a minimum grade of C

Class Hours: 2.5 lecture

Examines in-depth the procedures and practices for teaching young children in a range of settings. Provides opportunities to demonstrate early childhood teaching competencies, make connections between theory and practice, and develop professional behaviors. Students design and evaluate experiences that promote positive development and learning for all young children, and become informed advocates for high quality and appropriate educational practices and policies. Applies to Associate Degree. Transfer credit: CSU

CD M12L – 1-1.5 Units**Practicum 2 - Lab**

Prerequisites: CD M04 and CD M04L. Requires proof of negative TB clearance

Corequisite: CD M12

Recommended Prep: CD M02 and CD M11

Class Hours: 4.5 lab

Under supervision at a designated Child Development Center, students demonstrate early childhood teaching competencies, make connections between theory and practice, and develop professional behaviors. Requires hands-on application of procedures and practices presented in CD M12. Provides opportunity to implement and evaluate developmentally appropriate experiences that promote positive development and learning for young children. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CD M13 – 3 Units**Practicum 3 - Preschool**

Prerequisites: CD M02, CD M04, CD M04L, CD M12 and CD M12L all with a minimum grade of C

Class Hours: 2 lecture, 3 lab

Expands knowledge of procedures and practices for teaching and assessing young children through guided student teaching in a Title 22 or Title 5 licensed preschool. Requires 56 hours per semester of student teaching in a community program. Requires proof of negative TB clearance. Applies to Associate Degree. Transfer credit: CSU

CD M15 – 3 Units**Programs: Infant/Toddlers**

Prerequisites: None

Recommended Prep: CD M02

Class Hours: 3 lecture

Focuses on infant/toddler care based on developmental needs of the child. Emphasizes developmentally appropriate adult/child interactions, planning curriculum, environmental design and observation. Also addresses children with special needs and diverse cultural backgrounds. Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 45 contact hours. Applies to Associate Degree. Transfer credit: CSU

CD M16 – 3 Units**Behavior Management**

Prerequisites: None

Recommended Prep: CD M02

Class Hours: 3 lecture

Introduces characteristics of children with behavioral challenges and behavior management techniques. Difficult behaviors encountered by those working with children as well as techniques to cope and solve these behavior difficulties will be included. Applies to Associate Degree. Transfer credit: CSU

CD M17 – 3 Units**Practicum 4 Infant/Toddler**

Prerequisites: CD M02, CD M04, CD M04L and CD M15 all with a minimum grade of C

Recommended Prep: CD M23 with a minimum grade of C

Class Hours: 2 lecture, 3 Lab

Expands knowledge of procedures and practices for providing care and assessing infants and toddlers through guided student teaching in a Title 22 or Title 5 licensed childcare or family childcare center. Requires 56 hours per semester of student teaching in a community program. Requires proof of negative TB clearance. Applies to Associate Degree. Transfer credit: CSU

CD M19 – 3 Units**Programs: School Age**

Prerequisites: None

Recommended Prep: CD M01, CD M02

Class Hours: 3 lecture

Introduces students to the concept of school-age childcare through study of theories of child development, activities for grades K-6; behavior management techniques; and information on ensuring school-age program quality. Includes information pertaining to family and school coordination and community resources. Applies to Associate Degree. Transfer credit: CSU

CD M20 – 3 Units**Practicum 5 - School Age**

Prerequisites: CD M02, CD M04, CD M04L and CD M19 all with a minimum grade of C

Recommended Prep: CD M16 with a minimum grade of C

Class Hours: 2 lecture, 3 lab

Expands knowledge of procedures and practices for teaching and assessing young children through guided student teaching in a school age setting. Requires 56 hours of student teaching in a community program. Requires proof of negative TB clearance. Applies to Associate Degree. Transfer credit: CSU

CD M22A/B – 1 to 3 Units**Independent Studies in Child Development**

Prerequisites: A previous course in Child Development

Class Hours: 1 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of child development through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Requires field trips. Applies to Associate Degree. Transfer credit: CSU

CD M23 – 2 Units**Nutrition, Health and Safety**

Prerequisites: None

Recommended Prep: CD M02

Class Hours: 2 lecture

Explores health protection and resources provided by the home, school, and community, emphasizing prevention of infectious disease, preventative health practices, prevention policies, injury prevention, disaster preparedness, nutrition, child abuse identification and prevention, children with special needs, and care of the mildly ill child. Complies with legal statutes. Requires an additional course in pediatric first aid and pediatric CPR to fully meet statute. Provider approved by the California Board of Registered Nursing. Provider number CEP2811 for 30 contact hours. Applies to Associate Degree. Transfer credit: CSU

CD M24 – 3 Units**Administration in ECE 1**

Prerequisites: CD M02, CD M03, CD M11, and one of the following: CD M06, CD M07, CD M08, CD M09, or CD M10 all with a minimum grade of C

Class Hours: 3 lecture

Introduces principles and practices of administering a child development program, emphasizing administrative needs; personnel and staffing parameters; parent/teacher relations and education; licensing requirements; professional development; specific personnel management skills; and communication. Course required by the Child Development Permit - Site Supervisors (Title 5) and Program Director (Title 22). Applies to Associate Degree. Transfer credit: CSU

CD M25 – 3 Units**Administration in ECE 2**

Prerequisites: CD M02, CD M03, CD M11, and one of the following: CD M06, CD M07, CD M08, CD M09, or CD M10 all with a minimum grade of C

Class Hours: 3 lecture

Focuses on establishing and managing a small business, with emphasis on planning, financing, staffing, marketing, site selection, budgeting, legal concerns, and regulatory issues. Considers the rewards and perils of owning a business. The Child Development Permit of Title 5 ECE/CD programs requires this course for Site Supervisors (Option 1) and Program Directors. (Same course as BUS M32: Small Business Management.) Applies to Associate Degree. Transfer credit: CSU

CD M26 – 2 Units**Supervision and Mentoring**

Prerequisites: CD M02, CD M03, CD M11, and one of the following: CD M07, CD M08, CD M09, or CD M10 all with a minimum grade of C

Class Hours: 2 lecture

Includes methods and principles of supervising student teachers, assistant teachers, parents and volunteers. Emphasis on the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents, and other staff. Course required by the Child Development Permit for Title 5 ECE/CD programs for Master Teachers, Site Supervisors and Program Directors. Applies to Associate Degree. Transfer credit: CSU

CD M27 – 2 Units**Parent Education**

Prerequisites: None

Recommended Prep: CD M02

Class Hours: 2 lecture

Offers students who wish to work with parents, as well as parents, skills and resources that promote more effective parent and child interactions. Includes study of children's developmental stages, guidance principles and techniques that promote healthy self-esteem, and application of developmental theories. Applies to Associate Degree. Transfer credit: CSU

CD M28 – 3 Units**Children with Special Needs**

Prerequisites: CD M02

Class Hours: 3 lecture

Study includes curriculum adaptations, inclusion, the referral process, community resources, family-service provider-teacher/caregiver collaboration, psychological implications of being a child with special needs and laws that pertain to working with this population. Applies to Associate Degree. Transfer credit: CSU

CD M33 – 3 Units**Programs: Special Needs**

Prerequisites: CD M02

Recommended Prep: CD M15

Class Hours: 3 lecture

Focus is on theories, research, and practical applications from early childhood education and special education. Topics covered will include curriculum modification strategies to facilitate the development of cognitive, motor, social, emotional, and language skills in children with special needs. Specific attention will be aimed at developing behavior management plans, collaborative teaching systems, and methods for working with paraprofessionals and families of children with special needs. Field trips may be required. Applies to Associate Degree. Transfer credit: CSU

CD M34 – 3 Units**Practicum 6: Special Education**

Prerequisites: CD M04/M04L, CD M12/M12L, CD M15, CD M28 and CD M33

Class Hours: 2 lecture/3 lab

Provides students experience working with infants and young children with special needs in a variety of early intervention and educational settings, including self-contained and fully-included child care programs and early childhood classes. It integrates learned theoretical models to real life situations and affords students opportunities for supervised practice in the Individual Family Service Plan and/or Individual Educational Plan process. Students will also assist in the planning and implementation of intervention strategies for infants and young children with special needs. Collaborative work includes working with early intervention and special education professionals. Particular emphasis is given to experiences that help increase student's observation reports, assessment, and intervention planning skills that are culturally sensitive towards unique needs of families with infants and young children with special needs. Field trips may be required. Applies to Associate Degree. Transfer credit: CSU

CD M35 – 1.5 Units**Programs: Family Child Care**

Prerequisites: None

Recommended Prep: CD M02

Class Hours: 1.5 lecture

Reviews history and philosophies of family childcare, introducing developmentally appropriate practices, provider's role, learning theories, assessment, environment and management, curriculum development and lesson plans. Applies to Associate Degree. Transfer credit: CSU

CD M37 – 1.5 Units**Administration: Family Child Care**

Prerequisites: None

Recommended Prep: CD M33

Introduces principles and practices for administering a family childcare site, emphasizing administrative needs; staffing parameters; parent/provider relations and education; licensing requirements; professional development; and communication. Applies to Associate Degree. Transfer credit: CSU

CD M55 – 1.5 Units**Toddler-Parent Education**

Prerequisites: None

Class Hours: 1.5 lecture

Provides an environment to study and observe toddlers in a naturalistic setting. Focuses on adult-toddler relationships, developmental stages, brain development, socialization, parent concerns, and developmentally appropriate practices. Registration of children for this class is done through the Child Development Center. All children must meet California immunization guidelines. (Formerly CD M60A) May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU

CD M60A-Z – 0.5 to 3 Units**Topics in Child Development**

Prerequisites: To be determined

Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Transfer credit: determined by transfer institution.

Developed topics include:**CD M60K – 1 Unit****The Special Needs Child**

Prerequisites: None

Class Hours: 1 lecture

Provides opportunities for developing skills in identifying and working with children and families with special needs. Community resources and services will be presented. Students will have opportunity to gain information through guest speakers, observation and interaction with children and families. Requires proof of negative TB clearance as well as Fingerprint/FBI/Child Abuse Index. Applies to Associate Degree. Transfer credit: CSU

CD M60N – 1 Unit**Parent Conferencing**

Prerequisites: None

Class Hours: 1 lecture

An Introduction to effective conferencing techniques between parents, teachers or caregivers. Includes the impact of significant adults in the lives of children and developing a positive working relationship. Applies to Associate Degree. Transfer credit: CSU

CD M80 – 1 to 4 Units**Internship in Child Development**

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

Chinese

Career Opportunities

Civil Service, Consulting, Customs, Diplomacy, Education, Health Services, Immigration/Naturalization, Imports/Exports, Intelligence, Law Enforcement, Journalism/Broadcasting, Manufacturing, Linguistics, Sales, Social Work, Translation/Interpretation, and Travel Services.

Dean

Inajane Nicklas, Phone (805) 378-1443

CHIN M01 – 4 Units**Elementary Chinese: Mandarin I**

Prerequisites: None

Class Hours: 4 lecture, 1 lab as arranged

Introduces Mandarin Chinese language, culture, history and people, emphasizing speaking, understanding, reading, and writing skills. Requires individualized work in the language laboratory. Applies to Associate Degree. Transfer credit: CSU; UC (under review)

College Strategies

College Strategies courses provide students the information and skills needed to take responsibility for and control of their own academic success in any learning environment. These courses emphasize critical thinking and collaboration skills and are to improve learning skills, study tutoring and peer mentoring skills, or to develop leadership potential.

Dean

Inajane Nicklas, Phone (805) 378-1443

College Strategies Courses**COL M01 – 3 Units****College Strategies**

Prerequisites: None

Class Hours: 3 lecture

Develops each student's comprehensive learning profile, applying it to the construction and implementation of educational, career and life goals. Emphasizes independent critical thinking skills, appropriate use of available resources and effective strategies for academic success. Applies to Associate Degree. Transfer credit: CSU; UC

COL M02 – 1 Unit**College Individual Tutoring**

Prerequisites: None

Class Hours: 1 lecture

An Introduction to the methods of individual tutoring with an emphasis on learning theories and tutoring methodology. Applies to Associate Degree. Transfer credit: CSU

COL M02L – 0.5 to 1 Unit Individual Tutoring Program

Prerequisites: None

Recommended Prep: COL M02

Class Hours: 1.5 to 3 lab

A supervised training practicum for students currently or previously enrolled in tutor training courses. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

COL M03 – 1 Unit College Group Tutoring

Prerequisites: None

Recommended Prep: ENGL M01A

Class Hours: 1 lecture

An Introduction to the theory and practice of group learning in a college tutorial setting. Applies to Associate Degree. Transfer credit: CSU

COL M03L – 0.5 to 1 Unit Group Tutoring Practicum

Prerequisites: None

Recommended Prep: COL M03

Class Hours: 1.5 to 3 lab

A supervised training practicum for students currently or previously enrolled in group tutor training courses. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

COL M04 – 1 Unit College Leadership and Student Mentoring

Prerequisites: None

Class Hours: 1 lecture

Introduces leadership and mentoring skills to college students. Discusses student development theory and its application to leadership and mentoring. Applies to Associate Degree. Transfer credit: CSU

COL M04L – 0.5 to 1.0 Unit Leadership and Mentoring Practicum

Prerequisites: None

Recommended Prep: COL M04

Class Hours: 1.5 to 3 lab

A supervised training practicum for students currently or previously enrolled in leadership and mentoring courses. Applies to Associate Degree. Transfer credit: CSU

COL M05 – 0.0 Unit Supervised Tutoring Across the Curriculum

Prerequisite: None

Class Hours: 2 lab

Individual and/or group tutoring designed to assist in reviewing course material and preparing for class assignments and tests. May be taken for a total of 4 times. Non-credit, non-degree applicable.

COL M06 – 0.5-1.5 Units College Skills for Success

Prerequisite: None

Class Hours: 1.5-4.5

Supervised, individualized, self-paced course of text, video and computerized activities designed to develop and improve a student's reading, writing, math, and/or study skills for college success. Students can choose to focus on improving one or more of the following subjects: reading, writing, math, and/or study skills. May be taken for a total of 4 times for credit. Applies to Associate Degree.

Communications

Communications is a broad term that describes a general field of study. Moorpark College offers three primary career paths within communications:

Communications

This interdisciplinary academic program enhances students' flexibility for transfer and professional development by introducing core disciplines such as English, speech, graphics, journalism, and radio/television. See specific course listings under specified disciplines.

Radio/Television

This occupational/transfer program offers practical training and application for work in education or commercial radio, television and related production fields by providing local internship opportunities in radio/television, motion pictures, promotion, and post-production. See specific course listings under Radio/Television.

Journalism

This occupational/transfer program offers practical training and application for work in education or commercial print arenas by providing local internship opportunities at newspapers in areas such as news writing and reporting, copy editing, newspaper production, broadcast journalism, and public relations. See specific course listings under Journalism.

Dean

Patricia Ewins, Phone (805) 378-1408

Counselors

Denice Avila, Michael Johnson

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536.

Degree in Communications

To earn an Associate in Arts Degree with a major in Communications, students complete 39 specified units, plus General Education Degree Requirements. The interdisciplinary approach further enhances students' flexibility for transfer and professional development.

In addition to General Education Degree Requirements, complete the following:

Required Courses.....	Units
ENGL M01A	English Composition.....4.0
COMM M01	Introduction to Speech.....3.0
BUS M37	Marketing.....3.0
OR	
BUS M38	Advertising.....3.0
GR M10	Introduction to Communication Design3.0
GR M20	Macintosh and IBM Operating Systems.....2.0
JOUR M01	Media and Society3.0
JOUR M02	Reporting and Writing for the Media.....3.0
PHOT M01A.....	Beginning Photography.....3.0
RT M02A	Broadcast Studio Operations3.0
RT M05	Radio Television Script Writing.....3.0
RT M07A	Radio Production Workshop3.0
Plus Additional Courses from GR, JOUR, PHOT or RT	6.0
See separate course descriptions to make selections	
TOTAL	39.0

See General Education Degree Requirements and Transfer Information.

Communication Studies (formerly Speech)

Communication and speech is one of the most fundamental skills any student can acquire. Oral communication competence is the most highly prized and sought after skill in the professional world, and an indispensable requirement for succeeding in all academic disciplines. The Communication Studies Department offers both theoretical and practical classes. The College's award-winning Forensics Team puts these skills into action each semester.

Dean

Patricia Ewins, Phone (805) 378-1408

Full-time Faculty

August Benassi, Stephen Doyle, Jill McCall, Rolland Petrello, James Wyman

Counselors

Denice Avila, Michael Johnson

Degree in Communication Studies

To earn an Associate in Arts Degree with a major in Speech, students complete 28 specified units, plus General Education Degree Requirements. These courses parallel the undergraduate coursework students will need for a bachelors degree in speech at a four-year institution.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
COMM M01.Introduction to Speech	3.0
COMM M02.Advanced Public Speaking	3.0
COMM M04.Interpersonal Communication	3.0
COMM M05.Oral Interpretation of Literature	3.0
COMM M07.Argumentation and Debate	3.0
COMM M10A.Forensics.....	2.0
COMM M25.Introduction to Rhetorical Criticism	3.0
Units from List of RECOMMENDED COURSES	8.0
TOTAL	28.0

Recommended Courses: Choose at least 8 units from the following:

CIS M27	Microsoft Power Point	1.5
COMM M03	Voice and Diction	3.0
COMM M10B.....	Forensics.....	2.0
COMM M12	Intercultural Communication	3.0
COMM M16	Readers' Theatre	3.0
COMM M26	Rhetoric of Popular Culture.....	3.0
COMM M56	Business and Professional Speech	3.0

See General Education Degree Requirements and Transfer Information.

Communication Studies Courses

COMM M01 – 3 Units

Introduction to Speech

Prerequisites: None

Class Hours: 3 lecture

Designed to prepare students to be effective oral communicators in a public speaking context through instruction in basic communication theory, appropriate delivery skills, common organizational patterns, and thorough research techniques. Also offers practical training in feedback and listening skills. (Formerly SPCH M01) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M02 – 3 Units

Advanced Public Speaking

Prerequisites: COMM M01

Class Hours: 3 lecture

Provides a further exploration into the principles of public speaking and the analysis of public discourse. Practical application of advanced principles of audience adaptation and ethics will be explored through the presentation of various types of persuasive speeches and situations. (Formerly SPCH M02) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M03 – 3 Units

Voice and Diction

Prerequisites: None

Class Hours: 3 lecture

Introduces theory and practice of voice control, emphasizing correct pronunciation, breathing control techniques, and regional and foreign dialects. Especially useful for those in theatre, forensics and broadcasting. May be taken for a total of two (2) times for credit. (Same course as RT M08 and THA M03) (Formerly SPCH M03) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M04 – 3 Units

Interpersonal Communication

Prerequisites: None

Class Hours: 3 lecture

Provides an Introduction to the dynamics of communication in one-to-one relationships, focusing on experience, behavior, and rules governing interpersonal contexts such as friendship, families, and employer-employee relations. Factors influencing communication are studied such as language, perception, non-verbal cues, listening, status and roles. Problems of communication are identified and explored through conflict resolution and problem solving techniques. Assertiveness and confidence in relating interpersonally through the communication process are studied. (Formerly SPCH M04) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M05 – 3 Units

Oral Interpretation of Literature

Prerequisites: None

Class Hours: 3 lecture

A unique blend of speech and acting. Studies the principles of interpretation of literature from each of the major genres (prose, poetry, drama) as well as the techniques of performance. The study of literary craft is a vital part of this class. Students will evaluate, analyze, and perform selections from each of the major genres of literature. (Formerly SPCH M05) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M07 – 3 Units

Argumentation and Debate

Prerequisites: None

Class Hours: 3 lecture

Introduces theory, methodology, and practice of critical listening, critical thinking and oral argument, including training in propositions, methods of analysis, stock issue policy analysis, evidence and proof, and cross-examination considerations. Examines types of debatable propositions, effective listening and note taking, research methodology, and delivery skills. Practices team and Lincoln/Douglas formats on class-selected topics and issues. (Formerly SPCH M07) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M10A-D – 2 Units**Forensics**

Prerequisites: None

Class Hours: 1 lecture, 3 lab

Provides training, rehearsal, practice and performance necessary to succeed as a competitive speech team. Emphasizes argumentation and debate, informative and persuasive speaking, and impromptu and extemporaneous speaking. Involves research and one-on-one interactive training. Requires participation in interscholastic competition or community speaker's bureau. (Formerly SPCH M10A/B/C/D) Applies to Associate Degree. Transfer credit: CSU

COMM M12 – 3 Units**Intercultural Communications**

Prerequisites: None

Class Hours: 3 lecture

Introduction to intercultural communication principles and processes; provides for the development of a more global communication perspective and greater appreciation of other cultures through increased awareness of and sensitivity to different cultural viewpoints influenced by variables including language, verbal/nonverbal communication, cultural values, perception, inferences, expectations and media impact. (Formerly SPCH M12) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M16 – 3 Units**Readers' Theatre**

Prerequisites: None

Class Hours: 3 lecture

A unique blend of speech and acting. Studies the principles of interpretation of literature from all the major genres (prose, poetry, drama) as well as the techniques of performance. In groups, students will create, stage, and perform a reader's theatre incorporating each of the major genres of literature. (Same course as THA M16) (Formerly SPCH M16) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M22A/B – 1 to 3 Units**Independent Studies in Speech**

Prerequisites: A previous course in speech

Class Hours: 1 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of speech through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. (Formerly SPCH M22A/B) Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

COMM M25 – 3 Units**Introduction to Rhetorical Criticism**

Prerequisites: ENGL M01A

Class Hours: 3 lecture

Studies the principles of reasoning and rhetoric and their application to the analysis and evaluation of public discourse. Examines both the technique and the substance of discourse by exploring rhetorical strategies, quality of argument, quality of support for claims, use of language, fallacies, as well as the demands placed on the speaker by the audience. Also emphasizes the integration of critical thinking principles with techniques of effective written and spoken discourse. (Formerly SPCH M25) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M26 – 3 Units**Rhetoric of Popular Culture**

Prerequisites: None

Recommended Prep: ENGL M01A

Class Hours: 3 lecture

Studies U.S. popular culture. Examines the role of popular culture in the U.S. as a mediator of cultural values and attitudes. Specifically evaluates popular cultural in advertising, film, television, sports, and politics. (Formerly SPCH M26) Applies to Associate Degree. Transfer credit: CSU; UC

COMM M56 – 3 Units**Business and Professional Speech**

Prerequisites: None

Class Hours: 3 lecture

Focuses on effective speaking skill needed in leadership positions, including an awareness of presentation techniques, group dynamics, argumentation and persuasion strategies, organizational structure, and interpersonal situations in the business environment. Builds on individual needs and interests. (Same course as BUS M56) (Formerly SPCH M56) Applies to Associate Degree. Transfer credit: CSU

COMM M80 – 1 to 4 Units**Internship in Speech**

Prerequisites: Completion of or concurrent enrollment in one course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance coursework under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluations. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) (Formerly SPCH M80) Applies to Associate Degree. Transfer credit: CSU

Computer Information Systems

This program provides basic computer skills for students with the goal of immediate employment in business or industry. Three tracks are provided: (1) Microcomputer Applications, with emphasis on business computer applications; (2) traditional Information Systems, with emphasis on the use of large-scale computers and (3) Microcomputer Systems, with emphasis on office computer systems.

Dean

Dan Brown, Phone (805) 378-1427

Full-time Faculty

Mary Mills

Counselors

Edna Ingram, Michael Johnson, Corey Wendt

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536.

Degree and Certificate Options in Computer Information Systems

Computer Information Systems courses offer dual purpose: to prepare students for upper division course work in Business, Computer Information Systems, or Management Information Systems, and to provide business skills for a variety of careers in business, industry, and government. To earn a Certificate in Computer Information Systems or an Associate in Science Degree with a major in Computer Information Systems, students complete 30 specified units; those seeking the degree must also complete General Education Degree Requirements.

Required Courses	Units
BUS M02AFinancial Accounting I.....	3.0
BUS M02BFinancial Accounting II.....	3.0
OR	
CIS M18.....Accounting with QuickBooks.....	3.0
BUS M30Introduction to Business and Economics.....	3.0
CIS M16.....Introduction to Information Systems.....	4.0
CIS M40.....Visual BASIC I.....	4.0
CIS M41.....Visual BASIC II.....	4.0
CIS M50.....Introduction to Local Area Network.....	3.0
CNSE M30.....MS Windows Administration.....	3.0
OR	
CNSE M31.....MS Windows Network Server.....	3.0
CIS M53.....Systems Analysis.....	3.0
TOTAL	30.0

See General Education Degree Requirements and Transfer Information.

Associate Degree in Microcomputer Systems

Microcomputer Systems Certificate of Achievement (more than 18 units)
To earn a Certificate of Achievement in Microcomputer Systems or an Associate in Science Degree with a major in Microcomputer Systems, students complete 31.5 specified units; those seeking the degree also complete General Education Degree Requirements.

Required Courses	Units
BUS M02AFinancial Accounting I.....	3.0
BUS M02BFinancial Accounting II.....	3.0
OR	
CIS M18.....Accounting with QuickBooks.....	3.0
CIS M15.....Introduction to the Personal Computer.....	1.5
CIS M16.....Introduction to Information Systems.....	4.0
CIS M17.....Introduction to Windows.....	1.5
CIS M20.....Microsoft Word Part 1.....	1.5
CIS M21.....Microsoft Word Part 2.....	1.5
CIS M26A.....Microsoft Access I.....	1.5
CIS M26BMicrosoft Access II.....	1.5
CIS M27.....Microsoft PowerPoint.....	1.5
CIS M40.....Visual BASIC I.....	4.0
CIS M41.....Visual BASIC II.....	4.0
CIS M50.....Introduction to Local Area Networks.....	3.0
TOTAL	31.5

See General Education Degree Requirements and Transfer Information.

Microcomputer Applications Career Certificate (less than 18 units)

To earn a Career Certificate in Microcomputer Applications, students complete 13 specified units. This program provides instruction helpful to students seeking employment, as well as to those already employed but requiring upgrading of computer skills.

Required Courses	Units
BUS M39Business Communications.....	3.0
CIS M12.....Intermediate Computer Keyboarding.....	1.0
CIS M15.....Introduction to the Personal Computer.....	1.5
CIS M17.....Introduction to Windows.....	1.5
Units from List of RECOMMENDED COURSES.....	6.0
TOTAL	13.0

Recommended Courses: Choose 6 Units

CIS M20.....Microsoft Word Part 1.....	1.5
CIS M21.....Microsoft Word Part 2.....	1.5
CIS M24.....Microsoft Excel Part 1.....	1.5
CIS M25.....Microsoft Excel Part 2.....	1.5
CIS M26A.....Microsoft Access I.....	1.5
CIS M26BMicrosoft Access II.....	1.5
CIS M27.....Microsoft PowerPoint.....	1.5
CIS M28.....Microsoft Office.....	3.0

NOTE: The UC system allows credit for the first 6 courses taken in either Computer Information Systems, Computer Science or some combination.

Computer Information Systems Courses

CIS M10 – 0.5 Unit

Keyboarding Review

Prerequisites: None
Recommended Prep: A previous course in typing/keyboarding
Class Hours: 1.5 lab

Reviews existing typing/keyboarding skills. Can receive credit in CIS M10 or CIS M11, not both. Applies to Associate Degree.

CIS M11 – 1 Unit

Basic Computer Keyboarding

Prerequisites: None
Class Hours: 3 lab

Introduces basic keyboarding techniques, emphasizing speed and accuracy to 20 words per minute. Works in a custom-designed program using Microsoft Word. May be taken for a total of two (2) times for credit. Applies to Associate Degree.

CIS M12 – 1 Unit

Intermediate Computer Keyboarding

Prerequisites: CIS M11 or ability to type 20 wpm
Class Hours: 3 lab

Introduces students to figure and symbol skills and develops speed and accuracy through a custom-designed program in Microsoft Word. Applies to Associate Degree. May be taken for a total of two (2) times for credit. Applies to Associate Degree.

CIS M13 – 1 Unit

Computer Keyboarding / Speed Building

Prerequisites: CIS M12 or the ability to type 35 wpm
Class Hours: 3 lab

Emphasizes continued development of speed and accuracy through a programmed series of timings and drills customized to individual needs. May be taken for a total of two (2) times for credit. Applies to Associate Degree.

CIS M14 – 1 Unit

10-Key Mastery on the Computer

Prerequisites: None
Class Hours: 0.5 lecture, 1.5 lab

Builds mastery of the numeric keyboard and develops speed and accuracy for data entry as well as spreadsheet and database applications in a work environment. Applies to Associate Degree.

Computer Courses at Moorpark College

Computer Information Systems – CIS		Computer Science	Computer Network Systems Engineering
<p><i>Business Support Systems Career Opportunities</i></p> <p>Administrative Assistant, Executive Assistant, Office Coordinator, Administrative Support Staff, Administrative Secretary, Customer Service Rep., Data Entry Operator, Computer Operator, Computer Trainer, Receptionist, Word Processor, Personal Use, etc.</p>	<p><i>Information Systems Career Opportunities</i></p> <p>Systems Analyst, Network Administrator, Computer Consultant, Computer Network Technician, Customer Service Support Tech, Office Systems Manager, Data Processing Manager, etc.</p>	<p><i>CS Career Opportunities</i></p> <p>Computer Programmer, Software Engineer, System Designer, Operational Research Manager, Computer Lab Technician, Scientific Programmer</p>	<p><i>CNSE Career Opportunities</i></p> <p>Network Systems Administrator, Computer Network Administrator, Computer Hardware Consultant, Computer Software Consultant, Computer Technician, LAN Administrator, Mail Exchange Administrator, Network Cabling Installer, SQL Administrator, WAN Administrator, Web Administrator, Telecommunications Engineer, Systems Administrator</p>
<p>Keyboarding Classes</p> <ul style="list-style-type: none"> • CIS M10 Keyboarding Review • CIS M11 Basic Computer Keyboarding • CIS M12 Intermediate Computer Keyboarding • CIS M13 Computer Keyboarding/Speed Building • CIS M14 10-Key Master on the Computer <p>Introductory Classes</p> <ul style="list-style-type: none"> • CIS M15 Introduction to the Personal Computer • CIS M17 Introduction to Windows <p>Application Classes</p> <ul style="list-style-type: none"> • CIS M18 Accounting with Quick Books • CIS M20 Microsoft Word Part 1 • CIS M21 Microsoft Word Part 2 • CIS M24 Microsoft Excel Part 1 • CIS M25 Microsoft Excel Part 2 • CIS M26A Microsoft Access I • CIS M26B Microsoft Access II • CIS M27 Microsoft Powerpoint • CIS M28 Microsoft Office 	<p>Introductory Classes</p> <ul style="list-style-type: none"> • CIS M16 Introduction to Information Systems Programming Classes • CIS M40 Windows Programming: Visual BASIC I • CIS M41 Windows Programming: Visual BASIC II <p>Networking/Systems Analysis Classes</p> <ul style="list-style-type: none"> • CIS M50 Introduction to Local Area Networks (LAN) • CIS M51 Introduction to Novell Client/Server • CIS M52 Introduction to Windows NT Workstation/Server • CIS M53 Systems Analysis <p>Internet/Special Classes</p> <ul style="list-style-type: none"> • CIS M22A/B Independent Studies in Information Systems • CIS M30 Web Page Design I • CIS M31 Web Page Design II • CIS M60C Internet & World Wide Web I • CIS M60E Internet & World Wide Web II • CIS M60F Quicken • CIS M61 Computer Programming 	<p>Introductory Classes</p> <ul style="list-style-type: none"> • CS M01 Introduction to Computer Science • CS M02 Introduction to UNIX and C • CS M03 Introduction to Computer Hardware and Systems Software <p>Programming Classes</p> <ul style="list-style-type: none"> • CS M10A Introduction to Programming with C • CS M10B Object Oriented Programming Using C++ • CS M10C Windows Programming Using Visual C++ • CS M10J Introduction to Computer Programming Using Java • CS M10M Intermediate Java • CS M10S Java Servlets Programming • CS M20 Object-Oriented Data Structure & Algorithm Design • CS M30 Assembly Language • CS M40 Computer Organization • CS M50 Files and Databases • CS M60 Concepts of Programming Languages 	<p>Introductory Classes</p> <ul style="list-style-type: none"> • CNSE M05 Local and Wide Area Networks • CNSE M10 Introduction to Telecommunications <p>Networking Classes</p> <ul style="list-style-type: none"> • CNSE M11 Cisco Systems Computer Network 1 • CNSE M12 Network Wiring and Cabling • CNSE M13 Internetworking and TCP/IP • CNSE M14 Introduction to Mobile Data Wireless LAN Technologies • CNSE M15 to M17 Cisco Systems Computer Networking 2, 3, 4 • CNSE M30 MS Windows Administration • CNSE M31 MS Windows Server • CNSE M35 SQL Server Administration • CNSE M37 Administering MS Exchange • CNSE M38 MS Exchange Server Design & Implementation • CNSE M39 Sequel Server & Implementation • CNSE M40 Microsoft Internet Server • CNSE M41 Upgrading to Windows 2000 • CNSE M42 Win. 2000 Active Directory Services • CNSE M43 Win. 2000 Network Infrastructure Administration • CNSE M44 Designing Win. 2000 Directory Services Infrastructure • CNSE M45 Designing Win. 2000 Network Infrastructure • CNSE M46 Designing Win. 2000 Network Security • CNSE M51 Advanced Router Configuration

CIS M15 – 1.5 Units**Introduction to the Personal Computer**

Prerequisites: CIS M11

Class Hours: 1 lecture, 1.5 lab

Introduces computer terminology and concepts, emphasizing software installation, computer system expansion, computer purchase, and e-mail/Internet use. May be taken for a total of three (3) times for credit. Only offered credit/no-credit. Applies to Associate Degree.

CIS M16 – 4 Units**Introduction to Information Systems**

Prerequisites: None

Recommended Prep: CIS M11

Class Hours: 3 lecture, 3 lab

Covers history, development and application of information processing systems with emphasis on the microcomputer. It includes an overview of applications of computer programs in solving business programs. Includes hands-on experience in solving problems, design of program logic, and the writing and execution of programs using the Visual Basic language. Also provides hands-on experience with the major microcomputer business applications; word-processing, spreadsheets, and computerized database management. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU, UC (CIS M16 combined with CS M01 or CS M10A: maximum credit, 4 units)

CIS M17 – 1.5 Units**Introduction to Windows**

Prerequisites: None

Recommended Prep: CIS M15

Class Hours: 1 lecture, 1.5 lab

Introduces the Windows operating system, emphasizing running programs, entering/moving data, and performing DOS-related tasks. Includes program and file management using Explorer, Paint and WordPad. May be taken for a total of three (3) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M18 – 3 Units**Accounting with QuickBooks**

Prerequisites: BUS M01A or BUS M02A

Class Hours: 3 lecture

Introduces the use of QuickBooks in a computerized accounting system. Reinforces basic accounting concepts and procedures and their relationship to QuickBooks. Provides hands-on experience including setting up a new company. (Same course as BUS M08.) Applies to Associate Degree.

CIS M20 – 1.5 Units**Microsoft Word Part I**

Prerequisites: None

Class Hours: 1 lecture, 1.5 lab

Introduces Microsoft Word. Topics include creating and editing, fonts and symbols, formatting newspaper columns, spelling and grammar, headers and footers, page numbering, and searching on the Internet. Prepares student for the Microsoft Office User Specialist (MOUS) exam (Core Level). May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M21 – 1.5 Units**Microsoft Word Part II**

Prerequisites: CIS M20

Class Hours: 1 lecture, 1.5 lab

Introduces advanced topics in Microsoft Word, including borders and shading; merging documents; sorting text; table and indexes; macros; fill-in forms; and working with clip art. Prepares students for the Microsoft Office User Specialist (MOUS) exam (Expert Level). May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M22A/B – 1 to 3 Units**Independent Studies in Information Systems**

Prerequisites: A previous course in Computer Information Systems

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of computer information systems through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

CIS M24 – 1.5 Units**Microsoft Excel Part I**

Prerequisites: CIS M17

Class Hours: 1 lecture, 1.5 lab

Introduces basics of an electronic spreadsheet, working with Excel's desktop environment. Emphasizes how to enter data, select commands, move the cell cursor around the worksheet, get help, save a worksheet in a workbook file, and print a range of data. Prepares student for the Microsoft Office user Specialist (MOUS) exam (Core Level). May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M25 – 1.5 Units**Microsoft Excel Part II**

Prerequisites: CIS M24

Class Hours: 1 lecture, 1.5 lab

Develops advanced spreadsheet tools for managing data and making financial decisions. Emphasizes using macros, database functions, data tables, PivotTable reports, and report management. Prepares student for the advanced level of the Microsoft Office User Specialist (MOUS) exam. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M26A – 1.5 Units**Microsoft Access I**

Prerequisites: CIS M17

Class Hours: 1 lecture, 1.5 lab

Covers the basics of designing and building a database, using the latest version of Microsoft Access. Topics include: creating tables, forms, queries and reports; using built-in wizards; maintaining a relational database, table joins referential integrity; creating multiple tables, forms and reports; using basic controls; sharing data among other Microsoft applications such as Excel and Word. May be taken for a total of two (2) times for credit. Applies to Associate Degree.

CIS M26B – 1.5 Unit**Microsoft Access II**

Prerequisites: CIS M26A

Class Hours: 1 lecture, 1.5 lab

Covers the advanced topics of Microsoft Access such as creating advanced queries; defining relationships between tables; using advance techniques and controls to create custom forms and custom reports. Topics also include: creating custom user interfaces using Switchboard manager and macros; writing and using SQL (Structured Query language); intergrating Excel worksheet/text file data with Access and using data access pages to publish to Internet. Prepares student to pass the Microsoft Office User Specialist (MOUS) Expert-Level Examination in Access. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M27 – 1.5 Units**Microsoft PowerPoint**

Prerequisites: CIS M17

Class Hours: 1 lecture, 1.5 lab

Introduces presentation preparation, using animation, charts, clip art, pictures, shapes and sounds. May be taken for a total of three (3) times for credit. Applies to Associate Degree.

CIS M28 – 3 Units**Microsoft Office**

Prerequisites: None

Class Hours: 2 lecture, 3 lab

Introduces Microsoft Windows, Word, Excel, and PowerPoint, emphasizing integration features and advanced Object Linking and Embedding (OLE) technology. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M30 – 1.5 Units**Web Page Design I**

Prerequisites: None

Recommended Prep: CIS M17

Class Hours: 1 lecture, 1.5 lab

Provides an understanding of the fundamentals of Hypertext Markup Language (HTML) to design web pages. Students will develop skills in designing, creating and editing personal and business websites. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M31 – 1.5 Units**Web Page Design II**

Prerequisites: CIS M30

Class Hours: 1 lecture, 1.5 lab

Introduces intermediate programming concepts of Hyper Text Markup Language (HTML), Extended Markup Language (XML), and Style Sheets (CSS) to create enhanced web pages. Topics include: interactive forms, animation, audio, and video; overview of the current scripting languages; design concepts related to modern web development. Students will create and host personal and business websites. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M40 – 4 Units**Visual BASIC I**

Prerequisites: CIS M16

Recommended Prep: CIS M16

Class Hours: 3 lecture, 3 lab

Windows programming environment using Visual Basic. Includes an overview of Windows and provides an Introduction to Object-Oriented, Event-driven programming. Topics include forms, controls, event procedures, properties, methods, files and graphics, the user interface, managing projects, proper program design and structure and flow control. Provides some basic understanding of and experience in the development and use of error handling and debugging procedures. Applies to Associate Degree. Transfer credit: CSU; UC

CIS M41 – 4 Units**Visual BASIC II**

Prerequisites: CIS M40

Recommended Prep: CIS M16

Class Hours: 3 lecture, 3 lab

Second in a two -course sequence of instruction in programming in a Windows environment using Microsoft Visual Basic. Builds on the understanding of syntax and procedures learned in the first course, requiring the student to develop more complex and advanced programs. Concentrates on more advanced aspects of Visual Basic programming, including: accessing databases with Visual basic, Object Linking and embedding (OLE), creating ActiveX applications, creating custom Visual Basic user controls, etc. Applies to Associate Degree. Transfer credit: CSU; UC

CIS M50 – 3 Units**Introduction to Local Area Networks (LAN)**

Prerequisites: None

Recommended Prep: CIS M16

Class Hours: 2.5 lecture, 1.5 lab

Introduces system requirements, terminology, technology, topologies and software used in Local Area Networks, including evaluation of applications and integration with Wide Area Networks. Emphasizes hardware components, protocols and applications that support users. Reviews the features, expandability and maintainability of a range of network operating systems. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU

CIS M53 – 3 Units**Systems Analysis**

Prerequisites: CIS M16 and a programming class

Class Hours: 3 lecture

Introduces computer information systems and procedures and offers analysis of various existing business CIS principles and nondata and data systems concepts. Applies to Associate Degree. Transfer credit: CSU

CIS M60A-Z – 1 to 3 Units**Topics in Computers**

Prerequisites: To be determined

Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Transfer credit: determined by transfer institution.

Developed topics include:

**CIS M60C – 1 Unit
Internet and WWW I**

Prerequisites: None
Recommended Prep: CIS M17
Class Hours: 0.5 lecture, 1.5 lab

Provides a window into the World Wide Web and its abundance of resources. Provides hands-on experience using popular search engines, selecting an Internet provider and using e-mail and File Transfer Protocol. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

**CIS M60E – 1 Unit
Internet and WWW II**

Prerequisites: CIS M60C or equivalent knowledge of the Internet
Class Hours: 0.5 lecture, 1.5 lab

Expands proficiency in dynamic areas related to the Internet and World Wide Web, including complex search and retrieval strategies, file compression and decompression, browser plug-ins, Internet Relay Chat and teleconferencing. Applies to Associate Degree. Transfer credit: CSU

**CIS M61 – 1 Unit
Computer Programming Laboratory**

Prerequisites: None
Corequisite: CIS M22A/B with subject that requires extensive lab work/computer usage
Class Hours: 3 lab

Allows credit for lab experience when deemed appropriate by the instructor under an Independent Study contract. May be taken for a total of two (2) times for credit. Only offered credit/no-credit. Applies to Associate Degree. Transfer credit: CSU

**CIS M80 – 1 to 4 Units
Internship in Computer Information Systems**

Prerequisites: Completion of or concurrent enrollment in a course in the discipline.
Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance course work under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluation. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

**Computer Network
Systems Engineering**

The Computer Network Systems Engineering (CNSE) Program provides specific technologies necessary to function effectively as a multi-platform network systems administrator/analyst. It provides hands-on training on networking hardware and software. Successful program completion qualifies individuals for beginning positions in networking administration.

Moorpark College Network System Engineering program is a Cisco System Local Academy; a 3Com NetPrep Regional Training Center; and offers both Microsoft Engineering and Microsoft Administration certification courses.

IMPORTANT NOTE: Industry demands seem to change almost daily in this growing field. To keep pace with this growing educational need, Moorpark College continually updates, revises and develops its CNSE curriculum. To see the most accurate listing of the courses available, consult the current semester's Schedule of Classes or explore the options listed online (www.moorparkcollege.edu). The Division Office (805) 378-1427 would also be able to provide updated information, or you can make an appointment with a counselor (805) 378-1428).

Dean

Dan Brown, Phone (805) 378-1427

Full-time Faculty

Martin Chetlen, Edmond Garcia, Sheila Lauly and Vish Viswanath

Counselors

Edna Ingram and Candace Peyton

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805)378-1536.

**Degree and Certificate Options in Computer
Network Systems Engineering**

To earn an Associate in Science Degree with a major in Computer Network Systems Engineering, students complete 38.5-43.5 specified units, plus General Education Degree Requirements. NOTE: Course and Program adjustments occur regularly, therefore, please consult the current schedule of classes for the most recent information on available classes.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
CNSE M01.....Introduction to Networking and Telecommunications ...	4.0
CNSE M05.....Fundamentals of Computer Networking.....	4.0
CNSE M12.....Telecommunication Cabling Installation	3.0
CNSE M13.....Internetworking and TCP/IP	4.0
CNSE M14.....Fundamentals of Wireless LAN.....	3.0
CNSE M18.....Cisco System Computer Networking 1and 2.....	4.0
CNSE M30.....MS Windows Administration	3.0
CNSE M31.....MS Windows Network Server	3.0
CNSE M80.....Internship in Computer Systems Networking	1.0-4.0
MATH M01	Elementary Algebra
	5.0
OR	
MATH M01A AND MATH M01B (3 units each)	6.0
Units from List of RECOMMENDED COURSES	4.5 - 5.5
TOTAL	38.5-43.5

Recommended Courses:

CNSE M19.....Cisco System Computer Networking 3 and 4.....	4.0
CNSE M35.....SQL Server Administration.....	1.5
CNSE M37.....Exchange Server Implementation and Administration....	1.5
CNSE M38.....Administering MS Exchange.....	1.5
CNSE M39.....SQL Server Implementation.....	1.5
CNSE M40.....Microsoft Internet Security and Acceleration Server.....	1.5
CNSE M42.....Windows Server Active Directory Services.....	3.0
CNSE M43A.....Windows 2000 Network Infrastructure Administration ..	3.0
CNSE M43B.....Planning and Maintaining a MS Windows Network Infrastructure.....	3.0
CNSE M44.....Designing a Windows Active Directory and Network Infrastructure.....	3.0
CNSE M46.....Designing Windows Network Security.....	3.0
CNSE M47.....MS Windows Network Management.....	3.0
CNSE M51.....Cisco Semester 5-Advanced Routing Configuration.....	4.0
CNSE M52.....Cisco Semester 6-Remote Access Network.....	4.0
CNSE M55.....Linux Networking and System Administration.....	2.0
CNSE M56.....Linux System Security Management.....	2.0
CNSE M57.....Network Programming with Perl.....	1.5
CNSE M86.....Cisco Secure PIX Firewalls.....	1.5
CNSE M87.....Cisco Secure Virtual Private Networks.....	1.5

See General Education Degree Requirements and Transfer Information.

**Computer Network Systems Engineering Certificate of Achievement
(more than 18 units)**

To earn a Computer Network Systems Certificate of Achievement, students complete 30.5-33.5 specified units. Eight of these courses can be applied to the CNSE major for an associate degree.

Required Courses.....	Units
CIS M30.....Web Page Design I.....	1.5
CNSE M01.....Introduction to Networking and Telecommunications ..	4.0
CNSE M12.....Telecommunication Cabling Installation.....	3.0
CNSE M13.....Internetworking and TCP/IP.....	4.0
CNSE M14.....Fundamentals of Wireless LAN.....	3.0
CNSE M18.....Cisco System Computer Networking 1 and 2.....	4.0
CNSE M19.....Cisco System Computer Networking 3 and 4.....	4.0
CNSE M30.....MS Windows Administration.....	3.0
CNSE M31.....MS Windows Network Server.....	3.0
CNSE M80.....Internship in CNSE.....	1.0-4.0
TOTAL.....	30.5-33.5

**Basic Network Specialist Proficiency Award
(less than 18 units)**

To earn a Proficiency Award as a Basic Network Specialist, students complete 17 and under specified units.

Required Course.....	Units
CNSE M01.....Introduction to Networking and Telecommunications ..	4.0
CNSE M05.....Fundamentals of Computer Networking.....	4.0
CNSE M13.....Internetworking and TCP/IP.....	4.0
Units from List of RECOMMENDED COURSES.....	3.0-3.5
TOTAL.....	15.0-15.5

Recommended Courses:

CNSE M12.....Telecommunication Cabling Installation.....	3.0
CNSE M18.....Cisco System Computer Networking 1 and 2.....	4.0
CNSE M30.....MS Windows Administration.....	3.0

**Cisco System Network Associate Proficiency Award
(less than 18 units)**

To earn a Proficiency Award as a Cisco System Network Associate, students complete 8 specified units.

Required Courses.....	Units
CNSE M18.....Cisco System Computer Networking 1 and 2.....	4.0
CNSE M19.....Cisco System Computer Networking 3 and 4.....	4.0
TOTAL.....	8.0

**Windows Engineering Certificate of Achievement (MCSE)
(more than 18 units)**

To earn a Certificate of Achievement for Microsoft Engineering Local Area Network, students complete 21 specified units.

Required Courses.....	Units
CNSE M30.....MS Windows Administration.....	3.0
CNSE M31.....MS Windows Network Server.....	3.0
CNSE M42.....Windows Server Active Directory Services.....	3.0
CNSE M43A.....Windows 2000 Network Infrastructure Administration ..	3.0
CNSE M43B.....Planning and Maintaining a MS Windows Network Infrastructure.....	3.0
CNSE M44.....Designing a Windows Active Directory and Network Infrastructure.....	3.0
CNSE M46.....Designing Windows Network Security.....	3.0
TOTAL.....	21.0

**Windows Administration Proficiency Award
(MCSA) (less than 18 units)**

To earn a Proficiency Award for Microsoft Administration Local Area Network, students complete 12 specified units.

Required Courses.....	Units
CNSE M30.....MS Windows Administration.....	3.0
CNSE M31.....MS Windows Network Server.....	3.0
CNSE M43A.....Windows 2000 Network Infrastructure Administration ..	3.0
CNSE M43B.....Planning and Maintaining a MS Windows Network Infrastructure.....	3.0
CNSE M47.....MS Windows Network Management.....	3.0
TOTAL.....	15.0

Note: MCSA Certificate is pending state approval

**Advanced Network Specialist Certificate of Achievement
(more than 18 units)**

To earn a Certificate of Achievement as an Advanced Network Specialist, students complete 31 specified units.

Required Courses.....	Units
CNSE M01.....Introduction to Networking and Telecommunications ..	4.0
CNSE M05.....Fundamentals of Computer Networking.....	4.0
CNSE M12.....Telecommunication Cabling Installation.....	3.0
CNSE M13.....Internetworking and TCP/IP.....	4.0
CNSE M14.....Fundamentals of Wireless LAN.....	3.0
CNSE M18.....Cisco System Computer Networking 1 and 2.....	4.0
CNSE M19.....Cisco System Computer Networking 3 and 4.....	4.0
CNSE M30.....MS Windows Administration.....	3.0
CNSE M31.....MS Windows Network Server.....	3.0
TOTAL.....	32.0

Computer Network Systems Engineering Courses

CNSE M01 – 4 Units

Introduction to Networking and Telecommunications - Local and Wide Area Network

Prerequisites: None
Class Hours: 4 Lecture

Provides an overview of the Computer Networking and Telecommunications. Topics on computer networking include: network topologies, carrier signals, cable types, protocols, the Open Systems Interconnection (OSI) Layer, networking components, and Local Area Network (LAN) versus Wide Area Network (WAN) environments. Topics on telecommunications cover the telecommunications industries, local exchange functions, customer-premise equipment, and telephony services. (Formerly CNSE M10) Applies to Associate Degree. Transfer credit: CSU

CNSE M04A – 1.5 Units

Networking Aspects of Multiplayer Gaming

Prerequisites: None
Class Hours: 1 Lecture, 2 Lab

Introduces the networking elements of the Massively Multiplayer Games (MMGs). Included topics are network protocol stacks, gateway servers, game servers, Internetworking hardware, end-user operating system platforms, distributed computing architectures (client-server, peer-to peer, and grid), game database management, game security and integrity, and daemon controllers for non-player characters (NPCs). Prepares the students for vendor-based networking courses or game programming. (Formerly CNSE M04) Applies to Associate Degree.

CNSE M04B – 1.5 Units

Advanced Networking Aspects of Multiplayer Gaming

Prerequisites: CNSE M04A
Class Hours: 1 Lecture, 2 Lab

Focuses on advanced topics related to Massively Multiplayer Games (MMGs). Topics include building gaming servers on various operating system platforms, building database driven network games, types and roles of network gaming hardware, and building an environment to support multiplayer gaming over a LAN network of the Internet. Prepares students for entry into vendor-based networking courses and Introduces programming languages in game development. Applies to Associate Degree.

CNSE M05 – 4 Units

Fundamentals of Computer Networking

Prerequisites: None
Recommended Prep: Student should have knowledge and skills in accessing the internet and basic computer skills such as using word processor and email.
Class Hours: 4 lecture

In-depth Introduction of current networking hardware and software along with the skills necessary to succeed in the dynamic field of networking. Includes networking fundamentals such as the networking standards and OSI (Open Systems Interconnection) model, transmission basics, network protocols, topologies and access methods, network operating systems, and troubleshooting and network security. Applies to Associate Degree. Transfer credit: CSU

CNSE M05A – 2 Units

Local Area Networks

Prerequisites: None
Class Hours: 2 lecture

Clarifies how Local Area Networks (LANs) are built: what physical cables are used, how those cables are connected, and how hardware platforms (such as servers and workstations) attach to LANs. Also Introduces Network Operating System (NOS) software and applications that run on LANs. Cannot receive credit for CNSE M05A/B sequence and CNSE M05. Applies to Associate Degree. Transfer credit: CSU

CNSE M05B – 2 Units

Wide Area Networks

Prerequisites: None
Class Hours: 2 lecture

Clarifies network topics related to wide area networks (WANs), including the telecommunications components and concepts used to build WANs, as well as the protocols used to transport voice and data over a wide area. Cannot receive credit for CNSE M05A/B sequence and CNSE M05. Applies to Associate Degree. Transfer credit: CSU

CNSE M06 – 4 Units

Cisco Fundamentals of IT Essentials: PC Hardware and Software

Prerequisites: None
Class Hours: 3 lecture, 3 Lab

Provides an in-depth Introduction of the computer hardware and operating systems. The functionality of hardware and software components, as well as suggested best practices in maintenance and safety issues are covered. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an Introduction to networking is included. Helps students prepare for Comp TIA's A+ certification and Cisco Certified Network Associate program. Applies to Associate Degree. Transfer credit: CSU

CNSE M12 – 3 Units

Telecommunication Cabling Installation

Prerequisites: CNSE M01 and CNSE M05
Recommended Prep: CNSE M15 or CNSE M18
Class Hours: 2 lecture, 3 Lab

Provides intensive training on telecommunication cabling installation. Topics covered include: cable termination, cable testing, cable troubleshooting, common safety practices, fire-stopping, grounding and bonding, plans and specification, pulling cable, standards, codes, and methodologies, splicing cable, structure premises cabling systems, retrofits and system upgrades, and transmission fundamentals. Prepares students for Building Industry Consulting Service International (BICSI) Installer Level 1 certification. Applies to Associate Degree. Transfer credit: CSU

CNSE M13 – 4 Units

Internetworking and TCP/IP

Prerequisites: CNSE M05 or CNSE M05A and CNSE M05B
Class Hours: 4 lecture

This course offers two of the 8 networking fundamental courses in 3Com NetPrep program. It is an Introduction to TCP/IP networking architectures and internetworking devices such as bridges, switches, and routers. Topics include the use of internetworking components as well as concepts in network management and component selection. Applies to Associate Degree. Transfer credit: CSU

CNSE M14 – 3 Units**Fundamentals of Wireless Local Area Networks**

Prerequisites: CNSE M01 and CNSE M05

Recommended Prep: CNSE M18

Class Hours: 2.5 lecture, 1.5 lab

Provides the fundamentals of Wireless Local Area Networks (LANs). Focuses on the design, planning, implementation, operation and troubleshooting of Wireless LANs with an emphasis in the areas of Wireless LAN setup and troubleshooting, site surveys, resilient Wireless LANs (WLAN) design, installation and configuration, WLAN security, and vendor interoperability strategies. Applies to Associate Degree. Transfer credit: CSU

CNSE M18 – 4 Units**Cisco System Computer Networking 1 and 2**

Prerequisites: None

Recommended Prep: EL M18, CNSE M10, CNSE M05

Class Hours: 3 lecture, 3 lab

This course provides intermediate level instruction in computer basics, Local Area Networks, the 7-layer OSI (Open System Interconnection) model, signaling and structures cabling; and design and documentation. It will also cover WANs (Wide Area Networks), Router configuration, Cisco IOS (Inter-network Operating System) images, TCP/IP (Transmission Control Protocol/Internet Protocol), IP (Internet Protocol) addressing, and routing protocols. First semester course in a series to provide Cisco System Network Associate (CCNA) certificate training and covers the first half of CCNA preparation. (Formerly CNSE M11 and CNSE M15). Applies to Associate Degree. Transfer credit: CSU

CNSE M19 – 4 Units**Cisco System Computer Networking 3 and 4**

Prerequisites: CNSE M18 or CNSE M15

Class Hours: 3 lecture, 3 lab

This course provides intermediate level instruction in the OSI (Open System Interconnection) reference model and routing, LAN (local area network) switching, VLANs (virtual local area networks), Routing Protocols: IGRP (Interior Gateway Routing Protocol), access control lists (ACLs), and network management. It will also cover WANs (wide area networks), WANs design, point-to-point protocol (PPP), integrated services digital network (ISDN), frame relay, and network management. Second semester course in a series to provide Cisco System Network Associate (CCNA) certificate training and covers the second half of CCNA preparation. (Formerly CNSE M16 and CNSE M17). Applies to Associate Degree. Transfer credit: CSU

CNSE M30 – 3.0 Units**MS Windows XP Administration**

Prerequisites: None

Recommended Prep: CNSE M01 and CNSE M05

Class Hours: 2.5 lecture, 1.5 lab

Provides in-depth, hands-on Introduction to Microsoft Windows XP operating system administration. Covers creating and administering user and group accounts, network resources security, network printer server set-up and administration, resources and events auditing, and backup procedures. Applies to Associate Degree. Transfer credit: CSU

CNSE M31 – 3.0 Units**MS Windows Network Server**

Prerequisites: None

Recommended Prep: CNSE M30

Class Hours: 2.5 lecture, 1.5 lab

Provides in-depth, hands-on Introduction to Microsoft Windows Server 2003 technical support. Covers server installation; server environment configuration; and management on system policies, file system, partition, and fault tolerance. Also covers protocols configuration, remote access services implementation, internetworking and intranet- working, and troubleshooting. Applies to Associate Degree. Transfer credit: CSU

CNSE M35 – 1.5 units**SQL Server Administration**

Prerequisites: CNSE M31 or CNSE M71

Class Hours: 1 lecture, 1.5 lab

Provides an in-depth, hands-on Introduction to administering Microsoft SQL (Structured Query Language) Server. Topics include SQL server installation; version upgrade, system configuration and architecture, data transfer, web publishing and full-text indexing; database backup and restoration; user logins; user account management; permissions and security planning; administrative tasks automation; SQL Server monitoring and maintenance; and replication planning, configuration and management. Prepares students for Microsoft MCSE certification. It also serves as one of the electives by Microsoft for CNSA or CNSE Certification. Applies to Associate Degree. Transfer credit: CSU

CNSE M37 – 3 Units**Exchange Server Implementation and Administration**

Prerequisites: CNSE M30 or CNSE M71

Class Hours: 2 lecture, 3 lab

Provides an in-depth, hands-on Introduction to the implementation and administration of Microsoft's latest Exchange Server. Topics include: recipient objects creation and management; exchange server maintenance; deployment of Outlook; access on MAPI-based clients, and access from internet-based clients. Also covers public folder creation and management; server backup procedures, server performance monitor, and connected sites link monitors configuration supporting Exchange Server in a single site or multi-site enterprise environment; establishing messaging connectivity over the Internet; and supporting Web access to Exchange Server computers through Microsoft Outlook Web Access. Applies to Associate Degree. Transfer credit: CSU

CNSE M38 – 1.5 Units**Administering MS Exchange**

Prerequisites: CNSE M30

Class Hours: 1 lecture, 1.5 lab

The course provides an hands-on Introduction to the concept and administration of Microsoft's latest Exchange Server. Topics cover recipient objects creation and management; Exchange server maintenance; public folder creation and management; Server backup procedures, server performance monitor and connected sites link monitors configuration.

(This course may be taken for a total of two (2) times for credit.) Applies to Associate Degree. Transfer credit: CSU

CNSE M39 – 1.5 Units**SQL Server Implementation**

Prerequisites: CNSE M35

Class Hours: 1 lecture, 1.5 lab

Provides an in-depth, hands-on Introduction to implementing the latest Microsoft SQL (Structured Query Language) Server. Topics include overview of Transact-SQL, creating databases, creating database objects, implementing data integrity, planning and summarizing data, implementing views, managing transactions and locks, working with distributed data, implementing stored procedures, and implementing triggers. Prepares students for Microsoft MCSE certification. It is one of the requirements for the MCDBA Microsoft certification. May be taken for a total of two (2) times for credit. Applies to Associate Degree. Transfer credit: CSU

CNSE M40 – 1.5 Units**MS Internet Security and Acceleration Server**

Prerequisites: CNSE M31 or CNSE M71

Class Hours: 1 Lecture, 1.5 Lab

Provides the knowledge and skills to deploy and manage Microsoft Internet Security and Acceleration (ISA) Server 2000 in an enterprise environment. Topics include: application of ISA Server as a cache server and as an enterprise firewall; installation and configuration of ISA Server as a cache server and as a firewall; configuration of access policies to enable security-enhanced Internet access for client computers; configuration of ISA Server as a virtual private network (VPN); configuration of access to selected internal resources; ISA Server activities monitor by using alerts, logging, reporting, and real-time monitoring; and installation and configuration of ISA Server for an enterprise environment. Applies to Associate Degree. Transfer credit: CSU

CNSE M41 – 1.5 Units**Upgrading to NT Windows 2000**

Prerequisites: CNSE M31

Class Hours: 1 lecture, 1.5 lab

Provides an overview of the Microsoft Windows 2000 platform, including installing Windows 2000; configuring the DNS service; implementing active directory services; administering active directory services; managing desktop environments with group policy; managing software by using group policy; managing file resources; configuring remote access; supporting DHCP and WINS; managing disks; implementing disaster protection; and upgrading a network to Windows 2000. May be taken for a total of two (2) times for credit. Applies to Associate Degree.

CNSE M42 – 3.0 Units**Windows Server Active Directory Services**

Prerequisites: CNSE M31

Class Hours: 2.5 lecture, 1.5 lab

Prepares students to plan, configure, and administer Active Directory infrastructure. Students learn how to configure Domain Name System (DNS) to manage name resolution, schema, and replication; to use Active Directory to centrally manage users, groups, shared folders, and network resources, and to administer the user environment and software with group policy; and to implement and troubleshoot security in a directory services infrastructure and monitor and optimize Active Directory performance. One of the core required courses of Microsoft Windows Certified Systems Engineer (MCSE) and Microsoft Certified Systems Administrator (MCSA) and prepares students for Microsoft exam. Applies to Associate Degree. Transfer credit: CSU

CNSE M43A – 3 Units**Windows 2000 Network Infrastructure Administration**

Prerequisite: CNSE M31

Class Hours: 3 lecture, 1 lab

Prepares students to install, manage, monitor, configure, and troubleshoot Domain Name System (DNS), dynamic Host Configuration Protocol (DHCP), Remote Access, network Protocols, Internet Protocol (IP) Routing, and Windows Internet Name Service (WINS) in a Windows 2000 network infrastructure. Also provides training required to manage, monitor, and troubleshoot Network Address Translation and Certificate Services. This course is one of the four core required courses of Microsoft Windows 2000 Certified Systems Engineer (MCSE) and prepares students for Microsoft exam 70-216. (Formerly a portion of CNSE M43) Applies to Associate Degree. Transfer credit: CSU

CNSE M43B – 3 Units**Planning and Maintaining a MS Windows Network Infrastructure**

Prerequisite: CNSE M31

Recommended Prep: CNSE M43A

Class Hours: 2.5 lecture, 1.5 lab

Prepares students to plan, implement, and maintain a networking infrastructure. Also prepares students to plan Transmission Control Protocol/Internet Protocol (TCP/IP) network infrastructure, topology, and Internet connectivity; configure server roles and baseline security setting; plan name resolution, routing, and remote access strategies; maintain server availability with clusters and network load balancing; deploy Internet Protocol Security (IPSec), harder servers, and manager certificate; and design and administer a security infrastructure. Adopts the most current Windows server technology. Prepares students for Microsoft exam. (Formerly a portion of CNSE M43) Applies to Associate Degree. Transfer credit: CSU

CNSE M44 – 3 Units**Designing a Windows Active Directory and Network**

Prerequisites: CNSE M42 or CNSE M72

Class Hours: 2.5 lecture, 1.5 lab

Prepares students to analyze an organizations business and technical requirements and design a Windows directory services infrastructure. The four-stage Active Directory infrastructure design process, including creating a forest plan, a domain plan, an organizational unit (OU), and a site topology plan will be practiced and an Active Directory implementation plan will be created. Supports the Microsoft Windows Certified Systems Engineer (MCSE) program and prepares students for Microsoft exam. Applies to Associate Degree. Transfer credit: CSU

CNSE M46 – 3 Units**Designing Windows Network Security**

Prerequisites: CNSE M44

Class Hours: 2.5 lecture, 1.5 lab

Prepares students to analyze an organizations business and technical requirements and design security for a Windows network, and design security for all aspects of Windows 2000, from authentication strategies to Demilitarized Zones to protecting Internet-accessible resources. Supports the Microsoft Windows Certified Systems Engineer (MCSE) program and prepares students for Microsoft exam. Applies to Associate Degree. Transfer credit: CSU

CNSE M47 – 3 Units**MS Windows Network Management**

Prerequisites: CNSE M31

Class Hours: 2.5 lecture, 1.5 lab

Provides the knowledge required by System Administrators, Network Administrators, and IT professionals who implement, manage and troubleshoot existing network and server environments based on the Microsoft Windows platform. Also supports the Microsoft Windows Certified Systems Administrator (MCSA) program and prepares students for Microsoft exam. Applies to Associate Degree. Transfer credit: CSU

CNSE M49 – 1.5 Units**Microsoft SQL Server Client Application Architecture**

Prerequisites: CNSE M35 and CNSE M39

Class Hours: 1 Lecture, 1.5 Lab

Provides advanced level instruction in database management emphasizing client-server interface requirements using Microsoft Access. Fourth in a four course series to provide comprehensive Microsoft SQL server database management skills. Server side skills are presumed. Applies to Associate Degree. Transfer credit: CSU

CNSE M50 – 2 Units**Fundamentals of Voice Over IP**

Recommended Prep: Router configuration experience; CNSE M18 or equivalent. Student should be familiar with: basic configuration experience with router command line syntax, how to configure features and configure interfaces, and creating and applying access-list statements.

Class Hours: 1 lecture, 3 lab

Provides the student with fundamental knowledge to configure, troubleshoot and implement Voice over IP using IP Telephony technologies. Prepares students for relevant certification exams. Applies to the Associate Degree.

Transfer credit: CSU

CNSE M51 – 4 Units**Cisco Semester 5 Advance Routing Configuration**

Prerequisites: CNSE M17 or CCNA certification

Class Hours: 2 lecture, 6 lab

Provides the student with the knowledge to configure Cisco router for advanced network deployment. Prepares the student for the Cisco Routing 2.0 exam. The Routing 2.0 exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP). Applies to Associate Degree. Transfer credit: CSU

CNSE M52 – 4 Units**Cisco Semester 6 - Remote Access Network**

Prerequisites: CNSE M17 or CCNA 2.0 certified

Class Hours: 2 lecture, 6 lab

Provides students with an overview of remote access technologies and their relationship to the Cisco IOS. Topics include WAN (wide area network), modems and asynchronous dialup connections, PPP (Point-to-Point Protocol), ISDN (Integrated Services Digital Network) and DDR (Dial-on-Demand Routing), dialer profiles, X.25, Frame Relay, shaping Frame Relay traffic, WAN Backup connections, and queuing and compression. The Remote Access 2.0 exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP). Applies to Associate Degree. Transfer credit: CSU

CNSE M55 – 2 Units**Linux Networking and System Administration**

Prerequisites: None

Recommended Prep: User level experience with any computer system, including use of mouse, use of menus and use of an graphical user interface.

Class Hours: 1 lecture, 3 lab

Teaches the knowledge and skills needed to install, configure, operate, and manage the Linux operating system. It covers topics in (1) Linux system and network administration, (2) Linux network services, (3) Linux Internet services, (4) Linux system maintenance, and (5) security and problem solving. Prepare students for CompTia Linux+ certification examination. Applied to the Associate Degree. Transfer credit: CSU

CNSE M56 – 2 Units**Linux System Security Management**

Prerequisites: CNSE M55

Class Hours: 1 lecture, 3 lab

Teaches Linux system security management. Students learn how to analyze, protect, and monitor networks. It covers Linux security practices and tools, including Pluggable Authentication Modules (PAM), OPIE, syslog, sudo, xinetd, Secure Shell (SSH), Crack, tiger, Tripwire, The Cryptographic File System (TCFS), and ipchains. Applies to Associate Degree. Transfer credit: CSU

CNSE M57 – 1.5 Units**Network Programming With Perl**

Prerequisites: CNSE M10

Class Hours: 1 lecture, 1.5 lab

Topics covered include interprocess communications, sockets, and developing clients for such common Internet services as FTP (File Transfer Protocol), email, and Netnews. Other topics may be covered as well. The platform used may be either Windows or some form of Unix (such as Linux). Applies to Associate Degree. Transfer credit: CSU

CNSE M58 – 2 Units**Open Source Web Development –****Linux, Apache, MySQL and PHP**

Prerequisites: CNSE M55

Class Hours: 1 lecture, 3 lab

Provides an in-depth, hands-on, project approach to administering LAMP (Linux, Apache, MySQL, PHP) and providing email services. Topics include LAMP server installation, system configuration, web publishing, database back up and restoration; user account management, security planning; automation of administrative tasks through scripting languages including but not limited to PHP. Administration based labs are intermediate to advanced level of server monitoring, maintenance, configuration, and management. Applies to Associate Degree. Transfer credit: CSU

CNSE M59 – 2 Units**Windows Desktop Support**

Recommended Prep: CNSE M06 or equivalent AND CIS M20 or equivalent

Class Hours: 1 lecture, 3 lab

Provides in-depth training on help desk and field support services. Students will troubleshoot desktop systems running the latest Microsoft Windows desktop operating systems. Students learn to identify and troubleshoot user problems stemming from operating system installation problems, common application configuration issues through user errors. Use of best practices, customer service, help desk support, and safety will be conveyed through hands-on activities and labs. This course helps students prepare for the two Microsoft Certified Desktop Support Technician (MCDST) exams which will lead to the Microsoft MCDST certification. Applies to Associate Degree. Transfer credit: CSU

CNSE M60A-Z – 1 to 3 Units**Topics in Computers**

Prerequisites: To be determined

Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Transfer credit: determined by transfer institution.

Developed topics include:**CNSE M60A – 1.5 Units****Legal Aspects of Computer Forensics**

Prerequisites: None

Recommended Prep: CJ M02, CJ M05, CJ M11, CIS M15

Class Hours: 1.5 lecture

Provides an overview of the legal aspects of computer forensic investigations and the Criminal Justice System, as it applies to investigating computer crimes. Reviews types of computer crimes; analyzes evolving search and seizure requirements and exceptions with emphasis on constitutional law, criminal law and procedural law as it applies to investigating computer crime; discusses anticipating defenses to computer crime and how to effectively communicate findings in reports and in a courtroom. May be taken a total of 2 time(s) for credit. (Same course as CJ M60A.) Applies to Associate Degree. Transfer credit: CSU

CNSE M79 – 2 Units**Fundamentals of Project Management**

Prerequisites: None

Recommended Prep: One year or greater of professional work experience involving project milestones in the workplace, or completion of 16 or more units in a discipline of study.

Class Hours: 1 lecture, 3 lab

Examines foundations of project management, including project integration, scope, cost, quality, human resources, communications, risk and procurement, and the application of interpersonal communication skills. Utilizes various project management software and examines case studies. Applies to Associate Degree. Transfer credit: CSU

CNSE M80 – 1 to 4 Units**Internship in Computer Systems Networking**

Prerequisites: Completion or concurrent enrollment in a course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance course work under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluation. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805)378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

CNSE M81 – 1.5 Units**Introduction to Cyberspace Law**

Prerequisites: None

Class Hours: 1.5 lecture

Provides a framework about the law and cyberspace, examining the extent to which the Internet is currently under control and the extent to which it can or should be controlled. Regulation strategies are identified and discussed including: legislation, policy changes, administrative agency activity, international cooperation, architectural changes, private ordering, and self-regulation. Also applies major regulatory models to some of the most volatile Internet issues, including: cyber-security, consumer fraud, free speech rights, intellectual property rights, and file-sharing programs. Applies to Associate Degree. Transfer credit: CSU

CNSE M82 – 1.5 Units**Introduction to Network Security**

Prerequisites: CNSE M01 and CNSE M05

Class Hours: 1.5 lecture

Provides a comprehensive overview of network security. Covers general security concepts, communication security, infrastructure security, cryptography, and operational/organizational. Also prepares students for Computing Technology Industry Association (CompTIA) Security+ certification exam. Students will be prepared to pass a foundational security exam leading to a security certification. Applies to Associate Degree. Transfer credit: CSU

CNSE M83 – 1.5 Units**Introduction to Computer Forensics**

Prerequisites: CNSE M01 and CNSE M05

Class Hours: 1 lecture, 1.5 lab

Provides a comprehensive overview of computer forensics. Covers the basic processes of computer forensics, evidence collection and analysis. Demonstrates how to interpret clues inside mail messages and news postings on hard drives and other computer storage media. Applies to Associate Degree. Transfer credit: CSU

CNSE M85A – 3 Units**Securing Cisco IOS Networks**

Prerequisites: CNSE M18

Class Hours: 2 lecture, 3 lab

Focuses on the overall security processes based on a security policy with an emphasis on hands-on skills. Topics cover basic router and switch security, router Access Control Lists (ACLs) and Context-based Access Control (CBAC), router Authentication, Authorization, Accounting (AAA), router intrusion detection, monitoring, and management, and Virtual Private Network (VPN) implementation. Covers the first half of the Cisco Fundamentals of Network Security Curriculum. Prepares students for securing Cisco IOS Networks exam (SECUR 642-501). Applies to Associate Degree. Transfer credit: CSU

CNSE M85B – 3 Units**Cisco Fundamentals of PIX Firewalls**

Prerequisites: CNSE M18

Class Hours: 2 lecture, 3 lab

Provides an in-depth Introduction to Cisco Private Internet Exchange (PIX) Firewall technology. Topics of PIX Firewall include translations and connections, Access Control Lists (ACLs), Authentication, Authorization, Accounting (AAA), advanced protocols and intrusion detection, Virtual Private Network (VPN), and management. Covers the second half of the Cisco Fundamentals of Network Security curriculum. Prepares students for Cisco Secure PIX Firewall exam (CSPFA 642-521). Applies to Associate Degree. Transfer credit: CSU

CNSE M86 – 1.5 Units

Cisco Secure PIX Firewalls

Prerequisites: CNSE M15
 Recommended Prep: CNSE M85
 Class Hours: 1 lecture, 1.5 lab

Knowledge and skills needed to describe, configure, verify and manage the PIX (Private Internet Exchange) Firewall product family and the Cisco IOS (Internetwork Operating System) Firewall feature set. Prepares students for Cisco CCIP/Security certification exam. Applies to Associate Degree. Transfer credit: CSU

CNSE M87 – 1.5 Units

Cisco Secure Virtual Private Network (VPN)

Prerequisites: CNSE M15
 Recommended Prep: CNSE M85
 Class Hours: 1 lecture, 1.5 lab

Basic knowledge to plan, administer, and maintain a virtual private network (VPN). This course covers virtual private network fundamentals, Cisco VPN family products, Cisco IOS (Internetwork operating system) VPNs, Cisco PIX (Private Internet Exchange) Firewall VPNs, Cisco VPN concentrator VPNs, and scaling Cisco VPN solutions. This course prepares students for Cisco CCIP/Security certification exam. Applies to Associate Degree. Transfer credit: CSU

CNSE M88 – 1.5 Units

Cisco Secure Intrusion Detection System

Prerequisites: CNSE M18
 Class Hours: 1 lecture, 1.5 lab

Provides comprehensive knowledge to design, deploy, and manage the Cisco Secure Intrusion Detection System (CSIDS). Explains why network security is crucial in today's converged networking environment, how CSIDS improves the security on a network, and how to install and configure CSIDS. Also prepares students for Cisco CCIP/Security certification exam. Applies to Associate Degree. Transfer credit: CSU

Computer Science

Computer Science is concerned with the design, modeling, analysis, and applications of computer-related systems. The Computer Science program at Moorpark College prepares students for further study in Computer Science. It also provides vocational training necessary to understand, design, implement, and use the software and hardware of digital computers and digital systems. See course sequence information and chart on previous page.

Dean

Dan Brown, Phone (805) 378-1427

Full-time Faculty

Christine Aguilera, Martin Chetlen, Sheila Lauly and Vish Viswanath

Counselors

Edna Ingram, Corey Wendt

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805)378-1536.

Degree and Certificate Options in Computer Science

Degree in Computer Science

To earn an Associate in Science Degree with a major in Computer Science, students complete 41-44 specified units, plus General Education Degree Requirements. This major has a dual purpose: to prepare students for upper-division course work in Computer Science and to provide technical training for a variety of careers in business, industry, and government.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
CS M10A.....Introduction to Programming using Structured C++/Lab ..	4.0
CS M10B.....Object-Oriented Prog/C++	4.0
CS M20.....Object-Oriented Data Structure and Algorithm Design ...	4.0
CS M30.....Assembly Lang and Digital Design	4.0
CS M40.....Computer Architecture	3.0
MATH M21.....Discrete Mathematics	3.0
MATH M25A.....Calculus with Analytic Geometry I.....	5.0
MATH M25B.....Calculus with Analytic Geometry II.....	5.0
MATH M31.....Introduction to Linear Algebra	3.0
Units from List of RECOMMENDED COURSES	6.0-9.0
TOTAL	41.0-44.0

Recommended Courses: Choose 2 Courses

CS M10C.....Windows Prog/Using Visual C++	4.0
CS M10J.....Java Fundamentals.....	4.0
CS M10M.....Intermediate Java	3.0
CS M10S.....Java Servlets Programming	3.0
CS M50.....Files and Data Bases	3.0
CS M60.....Concepts of Programming Languages	4.0
MATH M25C.....Calculus with Analytic Geometry III	5.0
MATH M35.....Applied Differential Equations	3.0
PHIL M09.....Symbolic Logic	3.0

See General Education Degree Requirements and Transfer Information.

Computer Programming Certificate of Achievement (more than 18 units)

To earn a Computer Programming Certificate of Achievement, students complete 24 specified units designed for students who have already received an Associate Degree or above in other subject areas but plan to make a career change to computer software development.

Required Courses	Units
CS M01.....Introduction to Computer Science	4.0
CS M10A.....Introduction to Programming using Structured C++	4.0
CS M10B.....Object-Oriented Program Using C++	4.0
CS M10C.....Windows Program Using Visual C++	4.0
CS M10J.....Java Fundamentals.....	4.0
CS M20.....Object-Oriented Data Structures and Algorithm Design	4.0
TOTAL	24.0

NOTE: The UC system allows credit for the first 6 courses taken in either Computer Information Systems, Computer Science or some combination.

Computer Science Courses

CS M01 – 4 Units

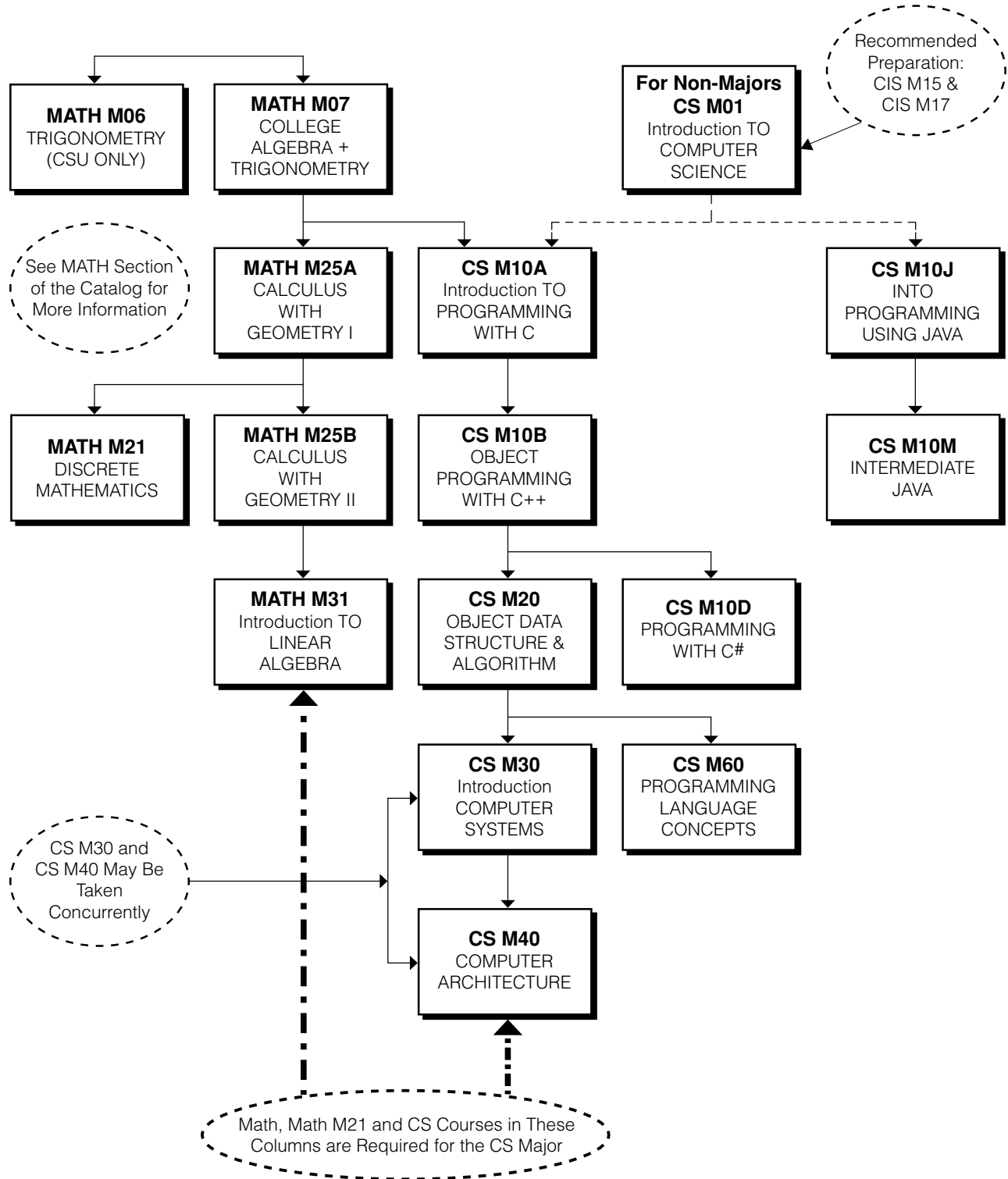
Introduction to Computer Science

Prerequisites: None
 Recommended Prep: CIS M17
 Class Hours: 3 lecture, 3 lab

An Introduction to Computer Science. Gives an overview of such areas as what are computers and basic concepts of how they work, how data is stored, concepts of computer programming, operating systems, and networks, as well as ethical and societal issues involving computers. Applies to Associate Degree. Transfer credit: CSU; UC (CS M01 combined with CIS M16 or CS M10A: maximum credit, 4 units)

Sequence of Computer Science Courses

Check with your transfer institution to determine which of these courses fulfill your general education and/or major requirements.



CS M03 – 3 Units**Introduction to Computer Hardware and Systems Software**

Prerequisites: None

Recommended Prep: CS M01

Class Hours: 3 lecture

Introduces computer hardware and systems software concepts from the users viewpoint, including computer organization, data representation, operating systems, and systems software design and use. Intended for non-computer science majors. Applies to Associate Degree. Transfer credit: CSU

CS M10A – 4 Units**Introduction to Computer Programming Using Structured C++**

Prerequisites: MATH M06 or MATH M07

Recommended Prep: CS M01

Class Hours: 3 lecture, 3 lab

In-depth understanding of the fundamentals of object-oriented programming methodology. Included are such concepts as encapsulation, classes, data and implementation hiding, message passing, inheritance, polymorphism, function overloading, operator overloading, parameterized functions, parameterized classes, virtual functions, exception handling, and an Introduction to the Standard Template Library. Applies to Associate Degree. Transfer credit: CSU; UC (CS M10A combines with CIS M16 or CS M01: maximum credit, 4 units)

CS M10B – 4 Units**Object-Oriented Programming Using C++**

Prerequisites: CS M10A

Class Hours: 3 lecture, 3 lab

Provides an in-depth understanding of the fundamentals of object-oriented programming methodology. Included are such concepts as encapsulation, classes, data and implementation hiding, message passing, inheritance, polymorphism, function overloading, operator overloading, parameterized functions, parameterized classes, virtual functions, exception handling, and an Introduction to the Standard Template Library. Applies to Associate Degree. Transfer credit: CSU; UC

CS M10C – 4 Units**Windows Programming Using Visual C++**

Prerequisites: CS M10B

Class Hours: 3 lecture, 3 lab

Introduces main components of Windows application programming including an Integrated Development Environment, messaging model, user interface, graphic device interface and memory management. Applies to Associate Degree. Transfer credit: CSU; UC

CS M10D – 4 Units**Programming with C#**

Prerequisites: Expertise with the C++ and/or Java programming languages

Recommended Prep: CS M10A or CS M10J or equivalent

Class Hours: 3 lecture, 3 lab

This course provides in-depth Introduction to the Microsoft C# programming language and .NET Framework. The basic syntax, semantics, and structure of the C# language are introduced, including control flow, basic data structures, algorithms, class declaration, class properties and methods, debugging, arrays, file input/output, and Introductory Windows forms programming. Applies to Associate Degree. Transfer credit: CSU; UC

CS M10J – 4 Units**Introduction to Computer Programming Using Java Fundamentals**

Prerequisites: MATH M06 or MATH M07

Recommended Prep: CS M01 and basic computer knowledge

Class Hours: 3 lecture, 3 lab

An Introduction to computer programming. The basic components, syntax, and semantics of the Java programming language are covered. Uses the Java computer language to introduce basic programming concepts such as algorithms, data and control structures, debugging, documentation, graphical user interface (GUI) and object oriented programming. Applies to Associate Degree. Transfer credit: CSU; UC

CS M10M – 3 Units**Intermediate Java**

Prerequisites: CS M10J

Class Hours: 3 lecture

Clarifies the capabilities of Java. Examines the range of input/output classes, Java specific data structures such as Vectors and Hash tables, and Java thread issues including thread groups, thread states, thread synchronization, deadlock and monitors. Explores Java networking, demonstrates the advantages of built-in class types and content handlers, and examines RMI and serialization to bring out the advantages of using Java in a distributed environment. Also introduces the powerful feature of Java security and Java Database Connectivity (JDBC). Highlights Jini, Java Foundation Classes, and Java Beans. Applies to Associate Degree. Transfer credit: CSU; UC

CS M10S – 3 Units**Java Servlet Programming**

Prerequisites: CS M10J or equivalent

Class Hours: 3 lecture

An in-depth study on server-side programming. Topics include Http Servlets basics, Servlet lifecycle, sending Hypertext Markup Language (HTML) information, sending multimedia content, session tracking, security, database connectivity, applet-servlet communication, servlet collaboration, enterprise servlets and Java 2 Enterprise Edition (J2EE), internationalization, the tea framework, Extensible Markup Language Compiler (XMLC) and JavaServer Pages. Applies to Associate Degree. Transfer credit: CSU; UC

CS M20 – 4 Units**Object-Oriented Data Structure and Algorithm Design**

Prerequisites: CS M10B

Class Hours: 3 lecture, 3 lab

Applies object-oriented programming methods to abstract data types such as stacks, queues, trees, and graphs. Introduces concepts of pointer variables, linked lists, list processing, recursion, simulation, algorithm analysis and verification as well as more advanced algorithm designs such as greedy algorithms and dynamic programming. Applies to Associate Degree. Transfer credit: CSU; UC

CS M22A/B – 0.5 to 3 Units**Independent Studies in Computer Science**

Prerequisites: A previous course in Computer Science

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of computer science through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

CS M30 – 4 Units**Introduction to Computer Systems**

Prerequisites: CS M10A or CS M10J

Class Hours: 3 lecture, 3 lab

An Introduction to basic computer architecture, assembly language programming, system software, and computer applications. Covers number systems, data representation, overview of operating systems, and internal organization of computers such as gates, combinational circuits, flip-flops, and the design and analysis of sequential circuits. Applies to Associate Degree. Transfer credit: CSU; UC

CS M40 – 3 Units**Computer Organization**

Prerequisites: CS M20 and CS M30

Class Hours: 3 lecture

An extension of basic addressing concepts to more advanced addressability such as base register and self-relative addressing. Comparative computer architectures focus on such organizations as multiple register processors and stack machines. Covers basics of virtual memory, input-output, Introduction to the concept of microprogrammable systems, low level language translation process associated with assemblers, system functions such as relocatable loading and memory management, and application of data structure and hashing techniques to the above. Applies to Associate Degree. Transfer credit: CSU; UC

CS M50 – 3 Units**Files and Data Bases**

Prerequisites: None

Recommended Prep: Knowledge of at least one high-level language and CS M30

Class Hours: 3 lecture

Introduces large file and data base management, including multifile databases, objectives of database organization, and data base structure. Reviews file structures: sequential, indexed sequential, indexed, direct, inverted, tree, and ring. Applies to Associate Degree. Transfer credit: CSU

CS M60 – 4 Units**Concepts of Programming Languages**

Prerequisites: CS M20

Class Hours: 3 lecture, 3 lab

Introduces concepts of programming languages including history of language development, syntax and semantics concepts and descriptions, bindings, scopes, data types, expressions, control structures, subprograms, concurrency and exception handling. Different categories of programming languages are introduced and compared: imperative, object-oriented, functional, and logic. Students will use at least one language from each category. Applies to Associate Degree. Transfer credit: CSU; UC

CS M80 – 1 to 4 Units**Internship in Computer Science**

Prerequisites: Completion of or concurrent enrollment in a course in the discipline.

Class Hours: 3 to 16.5 work experience hours

Provides on-the-job learning to enhance course work under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluation. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

Counseling

Counseling Services provides counseling classes that emphasize career development and student success. Also consider courses under College Strategies.

Dean

Patricia Ewins, Phone (805) 378-1408

Full-time Faculty

Donna Proske Allyn, Denice Avila, Frank Bianchino, Chuck Brinkman, Anitra Evans, Judi Gould, Traci Franks, Mike Johnson, Edna Ingram, Pam Kennedy-Luna, Letrisha Mai, Candace Peyton, Danita R. Redd, Ofelia Romero-Motlagh, Diane Sukiennik, Corey Wendt

Counseling Courses**COUN M01 – 1 Unit****Student Success**

Prerequisites: None

Class Hours: 1 lecture

Introduces strategies, attitudes and skills that promote academic success. Identifies personal obstacles to academic success with emphasis on study skills, learning styles, time management, procrastination, goal setting, stress management, concentration, adjusting to college, healthy living, and successful relationships. Introduces campus student support resources. (Formerly PG M01). Applies to Associate Degree. Transfer credit CSU

COUN M02 – 3 Units**Career Development**

Prerequisites: None

Class Hours: 3 lecture

Introduces self-assessment tools to identify college majors and careers by clarifying interests, skills, values, and personality type. Reviews decision-making processes, labor market trends, career research, interviewing skills, resume and cover letter writing, application completion, job search strategies, including the Internet. Applies to Associate Degree. Transfer credit: CSU

COUN M02A – 1.5 Units**Career Development-Choosing a Major and/or Career**

Prerequisites: None

Class Hours: 1.5 lecture

Introduces self-assessment tools to identify college majors and career by clarifying interests, skills, values, and personality type. Reviews decision-making process, labor market trends, career research, and use of the internet in this process. (Formerly PG M02A) (COUN M02A and M02B= COUN M02) Applies to Associate Degree. Transfer credit: CSU

COUN M02B – 1.5 Units**Career Development-Job Search Strategies**

Prerequisites: None

Class Hours: 1.5 lecture

Reviews decision-making process, labor market trends, career research, interviewing skills, resume and cover letter writing, application completion, job search strategies, and use of the Internet in this process. (Formerly PG M02B) (COUN M02A and M02B = COUN M02). Applies to Associate Degree. Transfer credit: CSU

**COUN M03 – 0.5 Unit
Orientation to Moorpark College**

Prerequisites: None
Class Hours: 0.5 lecture

Introduces students to college services and requirements in order to help them define and achieve their educational goals. Under the guidance of a counselor, students will select those topics which best meet their personal educational needs. These can include but are not limited to: associate degree and transfer requirements, basics of time management, planning a career and major, financial aid and scholarship opportunities, using the college library, and other student services and workshops. Students will produce an Educational Plan at the conclusion of the course. Only offered pass/no-pass. Applies to Associate Degree.

**COUN M04 – 1 Unit
Student Development in Higher Education**

Prerequisites: None
Recommended Prep: Completion of Math and English self-assessment and orientation.
Class Hours: 1 lecture

Introduces student development and the concept of lifelong learning. Reviews student services, programs, technological and internet resources. Explores models for student success, choosing a major/career and a college, and values clarification. Evaluates time management, study skills, learning styles. Emphasizes problem solving and decision making skills. Develop personalized student educational plan (SEP). (Formerly PG M04) Applies to Associate Degree. Transfer credit: CSU

**COUN M60A-Z – 1 to 3 Units
Topics in Counseling**

Prerequisites: To be determined
Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Only offered pass/no-pass. Transfer credit: determined by transfer institution.

Developed topics include:

**COUN M60A – 1 Unit
Confident Test Taking**

Prerequisites: None
Class Hours: 1 lecture

Introduces problem-solving approaches and relaxation techniques to apply during test situations. Develops positive self-image while taking tests. May be taken for a total of four (4) times for credit. Does not apply to the Associate Degree.

**COUN M60B – 0.5 Unit
Tools for Transfer**

Prerequisites: None
Recommended Prep: Completion of 30 transferable units
Class Hours: 0.5 lecture

To facilitate a smooth transfer from Moorpark College to four year colleges and universities, provides information about timelines and application processes including essays for applications, applications for financial aid and scholarship applications, and resources in the Career Transfer Center, such as on-line articulation information. Only offered pass/no-pass. Applies to Associate Degree.

**COUN M60C – 0.5 Unit
Self-Paced Career Assessment**

Prerequisites: None
Class Hours: 0.5 lecture

Introduces online and computer-based career self-assessment tools to identify and prioritize values, interests, skills, and personality attributes culminating in options in college majors and careers in an 8-hour, self-paced format. Includes intake and exit individual counseling/career consultations to strategize next steps congruent with individual goals and objectives. Applies to Associate Degree. Transfer credit: CSU.

**COUN M60D – 0.5 Unit
Self-Paced Career Research**

Prerequisites: None
Recommended Prep: COUN M60C
Class Hours: 0.5 lecture

Presents online and computer-based career research tools designed to assist students in evaluating and prioritizing career options. Research on specific careers and their correlating majors will culminate in first and second choices. Includes intake and exit individual counseling/career consultations to strategize next steps congruent with individual goals and objectives. Process will be completed in an 8-hour, self-paced format. Applies to Associate Degree. Transfer credit: CSU

Criminal Justice

Public concern with rising crime rates and the increasing role of law enforcement in public service work has contributed to the growth of criminal justice agencies throughout the nation. There is a broad range of employment opportunities for men and women in all components of the Criminal Justice System. This Criminal Justice Program offers an education to students in the varied aspects of law enforcement, court procedures and corrections. A foundation of knowledge is provided for those interested in becoming competitive candidates for these rewarding and challenging positions.

Dean

Tim McGrath, Phone (805) 378-1445

Full-time Faculty

David Harrington, Leeann Mulville

Counselors

Donna Proske-Allyn, Michael Johnson, Pamela Kennedy-Luna

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805)378-1536.

Degree in Criminal Justice

To earn an Associate in Science Degree with a major in Criminal Justice, students complete 27 specified units, plus General Education Degree Requirements.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
CJ M01Introduction to Criminal Justice	3.0
CJ M02Concepts of Criminal Law	3.0
CJ M03Community Relations.....	3.0
CJ M04Legal Aspects of Evidence	3.0
CJ M05Principles and Procedures of the Justice System	3.0
CJ M06Criminal Justice Report Writing	3.0
CJ M41Introduction to Probation, Parole and Corrections	3.0

Two Courses from the Following 3-Unit Courses	6.0
CJ M10Patrol Procedures.....	3.0
CJ M11Criminal Investigation.....	3.0
CJ M14Juvenile Procedure	3.0
CJ M18Narcotics Investigation	3.0
TOTAL minimum units required in major area.....	27.0

See General Education Degree Requirements and Transfer Information.

**Certificate of Achievement in Criminal Justice - Option 1
(More than 18 units)**

Required Courses.....	Units
CJ M01Introduction to Criminal Justice	3.0
CJ M02Concepts of Criminal Law	3.0
CJ M03Community Relations.....	3.0
CJ M04Legal Aspects of Evidence	3.0
CJ M05Principles and Procedures of the Criminal Justice System ..	3.0
CJ M06Criminal Justice Report Writing	3.0
CJ M41Introduction to Probation, Parole and Corrections	3.0

Two Courses from the Following 3-Unit Courses	6.0
CJ M10Patrol Procedures.....	3.0
CJ M11Criminal Investigation.....	3.0
CJ M14Juvenile Procedures.....	3.0
CJ M18Narcotics Investigation	3.0
TOTAL	27.0

**Certificate in Achievement Criminal Justice - Option 2
(More than 18 units)**

Required Courses.....	Units
CJ M01Introduction to Criminal Justice	3.0
CJ M02Concepts of Criminal Law	3.0
CJ M03Community Relations.....	3.0
CJ M04Legal Aspects of Evidence	3.0
CJ M05Principles and Procedures of the Criminal Justice System ..	3.0
CJ M41Introduction to Probation, Parole and Corrections	3.0
TOTAL	21.0

Criminal Justice Courses

**CJ M01 – 3 Units
Introduction to Criminal Justice**

Prerequisites: None
Class Hours: 3 lecture

Introduces the history and philosophy of criminal justice in America, reviewing system recapitulation; sub-system identification; role expectations and interrelationships; crime, punishment and rehabilitation theories; and ethics, education and training issues. Applies to Associate Degree. Transfer credit: CSU; UC

**CJ M02 – 3 Units
Concepts of Criminal Law**

Prerequisites: None
Recommended Prep: CJ M01, ENGL M01A
Class Hours: 3 lecture

Introduces the historical development and philosophy of law. Reviews constitutional provisions, definitions and classifications of crimes, and their application to the Criminal Justice System. Examines concepts of the law as a social force. Explores crimes against persons, property and the state as a social, religious and historical ideology. Employs legal research and review of case law methodology. Applies to Associate Degree. Transfer credit: CSU; UC

**CJ M03 – 3 Units
Community Relations**

Prerequisites: None
Recommended Prep: CJ M01
Class Hours: 3 lecture

Explores the interrelationship and role expectations among the various agencies and the public, emphasizing the professional image of the criminal justice system and the development of positive relationships between the system and the public. Requires exploration of criminal justice practitioners and their agencies. Community policing and its fundamentals will be emphasized. Applies to Associate Degree. Transfer credit: CSU; UC

**CJ M04 – 3 Units
Legal Aspects of Evidence**

Prerequisites: None
Recommended Prep: CJ M01 and CJ M02
Class Hours: 3 lecture

Introduces the origin, development, philosophy and constitutional basis of evidence, including constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; and judicial decisions interpreting individual rights. Applies to Associate Degree. Transfer credit: CSU

**CJ M05 – 3 Units
Principles and Procedures of the Justice System**

Prerequisites: None
Recommended Prep: CJ M01 and CJ M02
Class Hours: 3 lecture

Introduces the role and responsibilities of each segment within the Criminal Justice System: law enforcement, judicial, and corrections. Reviews each subsystem's procedures from initial entry to final disposition as well as the relationship each segment maintains with its system members. Applies to Associate Degree. Transfer credit: CSU

**CJ M06 – 3 Units
Criminal Justice Report Writing**

Prerequisites: None
Recommended Prep: ENGL M02
Class Hours: 3 lecture

Emphasizes the practical aspects of gathering, organizing, and preparing written reports for criminal justice activities on local, state and federal levels. Introduces techniques of communicating facts, information, and ideas effectively in a simple, clear and logical manner for various types of criminal justice system reports, letters, memoranda, directives and administrative reports appropriate for court presentation. Applies to Associate Degree. Transfer credit: CSU

**CJ M10 – 3 Units
Patrol Procedures**

Prerequisites: None
Recommended prep: CJ M01
Class Hours: 3 lecture

Introduces responsibilities, techniques, and methods of police patrol, including handling of complaints, mechanics of arrest, preliminary investigations, field note taking, and report writing. Applies to Associate Degree. Transfer credit: CSU

CJ M11 – 3 Units **Criminal Investigation**

Prerequisites: None

Recommended Prep: CJ M01 and CJ M02

Class Hours: 3 lecture

Introduces fundamentals of investigation including crime scene search and recording; collection and preservation of physical evidence; scientific aids and modus operandi; sources of information; interviews and interrogation; and follow-up and case preparation. Applies to Associate Degree. Transfer credit: CSU

CJ M14 – 3 Units **Juvenile Procedures**

Prerequisites: None

Recommended Prep: CJ M01

Class Hours: 3 lecture

Focuses upon the organization, functions, and jurisdiction of juvenile agencies, including the processing and detention of juveniles; juvenile case disposition; and juvenile statutes and court procedures. Applies to Associate Degree. Transfer credit: CSU

CJ M17 – 3 Units **Anatomy of a Murder**

Prerequisites: None

Recommended Prep: CJ M01 or CJ M11

Class Hours: 3 lecture

Examines the historical and contemporary analysis of criminal homicide. Use of case studies to examine the nature and extent of murder, including serial murder and sex crime related murder. Includes victimology, suspect profiling and investigative techniques and procedures for the identification, collection, preservation and presentation of evidence from a homicide crime scene. Applies to Associate Degree. Transfer credit: CSU

CJ M18 – 3 Units **Narcotics Investigation**

Prerequisites: None

Recommended Prep: CJ M01, CJ M04, CJ M11

Class Hours: 3 lecture

Reviews identification of marijuana, opiates, dangerous drugs, hallucinogens, and their paraphernalia. Includes principles of identifying and dealing with the "user"; laws and court decisions relating to the offender; fundamentals of search and arrest strategies; report writing and court testimony; and prevention and control of drug abuse within society. Applies to Associate Degree. Transfer credit: CSU

CJ M22A/B – 1 to 3 Units **Independent Studies in Criminal Justice**

Prerequisites: A previous course in Criminal Justice

Class Hours: 1 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of criminal justice through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

CJ M41 – 3 Units **Introduction to Probation, Parole and Corrections**

Prerequisites: None

Recommended Prep: CJ M01

Class Hours: 3 lecture

Presents an overview of the historical aspects of punishment and the development of contemporary correctional philosophy in the United States. Focuses on legal and practical aspects, practices, and procedures of probation, parole and the correctional institutions. Examines rehabilitation issues, legal issues, general laws, and operations of correctional institutions, and the relationship between corrections and other components of the criminal justice system. Applies to Associate Degree. Transfer credit: CSU

CJ M60A-Z – 1 to 3 Units **Topics in Criminal Justice**

Prerequisites: To be determined

Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semesters Schedule of Classes. Transfer credit: determined by transfer institution.

Developed topics include:

CJ M60A – 1.5 Units **Legal Aspects of Computer Forensics**

Prerequisites: None

Recommended Prep: CJ M02, CJ M05, CJ M11, CIS M15

Class Hours: 1.5 lecture

Provides an overview of the legal aspects of computer forensic investigations and the criminal justice system, as it applies to investigating computer crimes. Reviews types of computer crimes; analyzes evolving search and seizure requirements and exceptions with emphasis on constitutional law, criminal law and procedural law as it applies to investigating computer crime; discusses anticipating defenses to computer crime and how to effectively communicate findings in reports and in a courtroom. May be taken a total of 2 time(s) for credit. (Same course as CNSE M60A.) Applies to Associate Degree. Transfer credit: CSU

CJ M60B – 2 Units **Criminal Justice Employment Orientation**

Recommended Preparation: CJ M01

Class Hours: 1.5 lecture, 1.5 laboratory

Assists students in identifying areas of training and knowledge necessary to qualify for employment in the criminal justice field. Lab focuses on the skills necessary to pass the law enforcement entry level physical agility test. Applies to Associate Degree.

CJ M80 – 1 to 4 Units **Internship in Criminal Justice**

Prerequisites: Completion or concurrent enrollment in a course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance course work under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluation. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

**CJ M89A-Z – 0.5 to 3 Units
Institutes in Law Enforcement**

Prerequisites: CJ M01, M02, M03, M04 and M05 (Core) or possession of P.O.S.T. Basic Certificate
Class Hours: As arranged

Series concentrates on specialized law enforcement technology designed for criminal justice personnel. Series only offered credit/no-credit. Applies to Associate Degree.

Dance

People who study in the various specialties of dance (ballet, modern, jazz, tap and ballroom) may decide on a professional career on stage, television or films. A large number become teachers, either in public school (K-12, community college or university), private school (pre-school and K-12, colleges) as well as public or private centers or studios. The dance program is designed for both the student who wishes to major in dance and the student seeking to experience dance technique classes. The grace, carriage and confidence one gains in dance as well as the physical agility and flexibility are beneficial in all aspects of life. Dance activity classes fulfill the Physical Education requirement for graduation.

Dean

Patricia Ewins, Phone (805) 378-1408

Full-time Faculty

Beth Megill, Robert Salas

Counselors

Denice Avila

Transfer Information

Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in the Administration Building, (805) 378-1536. Most universities require an audition for level placement in technique.

Degree in Dance

To earn an Associate in Arts Degree with a major in Dance, students complete 26.5-42.0 specified units, plus General Education Degree Requirements. This degree program provides training in four areas of technique: ballet, modern, jazz and tap. Integral parts of the curriculum are practical experience in concert performance and production work as well as a theoretical background in choreography and dance history and appreciation.

In addition to General Education Degree Requirements, complete the following:

Required Courses	Units
DANC M01A.....Dance Appreciation	3.0
DANC M03.....Dance History.....	3.0
DANC M52.....Children's Dance Theatre	3.0
DANC M17.....Musical Dance Theater	3.0
OR	
DANC M51A.....Dance Performance.....	1.5
OR	
DANC M55.....Dance Rehearsal and Performance.....	5-2.0
Units from RECOMMENDED GROUPS	17.0-30.0
TOTAL	26.5-42.0

Recommended Groups: Complete ALL Units as Specified

GROUP A Select 4.5-6.5 Units from the Following:

DANC M10A.....Ballet I.....	1.5
DANC M10B.....Ballet II	1.5
DANC M10C.....Ballet III	1.5
DANC M10D.....Ballet IV.....	2.0
DANC M40.....Ballet Variations	2.0

GROUP B Select 3-6.5 Units from the Following:

DANC M11A.....Modern Jazz I	1.5
DANC M11B.....Modern Jazz II.....	1.5
DANC M11C.....Modern Jazz III	1.5
DANC M11D.....Modern Jazz IV	2.0
DANC M43.....Jazz Dance Roots	2.0

GROUP C Select 5-7 Units from the Following:

DANC M12A.....Modern Dance I	1.5
DANC M12B.....Modern Dance II	1.5
DANC M12C.....Modern Dance III.....	2.0
DANC M12D.....Modern Dance IV	2.0
DANC M14A-D.....Choreography, Modern Dance	2.0

GROUP D Select 1.5-3 Units from the Following:

DANC M13A.....Tap I.....	1.5
DANC M13B.....Tap II.....	1.5
DANC M13C.....Tap III	1.5
DANC M13D.....Tap IV.....	2.0

GROUP E Select 3-6 Units from the Following:

DANC M20A-C.....Free Dance/Improvisation	1.5
DANC M30A/B.....Ballroom Dance	1.5
DANC M31A/B.....World Dance	1.5
DANC M32.....Swing Dance.....	1.5
DANC M33.....Western Line Dance.....	1.5
DANC M60A-Z.....Topics in Dance (as offered)	1.0 to 3.0
DANC M80.....Internship in Dance.....	1.0 to 4.0

See General Education Degree Requirements and Transfer Information.

Dance Courses

DANC M01A – 3 Units

Dance Appreciation

Prerequisites: None
Class Hours: 3 lecture

Examines dance through viewing dance performances and through lectures and discussions, focusing on the historical, cultural and artistic developments and factors that influence change in dance. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M03 – 3 Units

Dance History

Prerequisites: None
Class Hours: 3 lecture

Introduces through a sweeping overview of tribal, ethnic, and folk-dance forms the wide range of activity of dance as it has existed throughout the world. Focuses on ballet from its origin in Renaissance Europe to the present as well as twentieth century modern and jazz dance, including the contemporary scene, which is international and eclectic. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M10A – 1.5 Units**Ballet I-Fundamentals**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces basic ballet technique and terminology, including general principles of alignment, centering and posture. Requires exercises at the barre to develop flexibility, strength, control and coordination. Includes resilience and center practice of Port des Bras, simple adage and allegro movements. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M10B – 1.5 Units**Ballet II-Beginning**

Prerequisites: DANC M10A

Class Hours: 1 lecture, 2 lab

Introduces new movements and terminology as part of the basic ballet technique, both at the barre and in center, combining basic movements into adage and allegro patterns. Stresses heightened technical skills. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M10C – 1.5 Units**Ballet III-Intermediate**

Prerequisites: DANC M10B

Class Hours: 1 lecture, 2 lab

Introduces knowledge and development of intermediate technique both at the barre and in center, concentrating on the discipline of ballet form and the physical abilities necessary to execute movements. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M10D – 2 Units**Ballet IV-Advanced**

Prerequisites: DANC M10C

Class Hours: 1 lecture, 3 lab

Expands review of ballet, emphasizing analysis and application of kinesthetic principles to further develop skills, techniques, and physical capabilities. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M11A – 1.5 Units**Modern Jazz I-Fundamentals**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces basic movement skills of modern jazz technique, emphasizing understanding and appreciation of jazz as an artistic dance form. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M11B – 1.5 Units**Modern Jazz II-Beginning**

Prerequisites: DANC M11A

Class Hours: 1 lecture, 2 lab

Develops basic skills of modern jazz technique, emphasizing compositional forms and rhythms that lead to understanding and appreciation of jazz as an artistic dance form. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M11C – 1.5 Units**Modern Jazz III-Intermediate**

Prerequisites: DANC M11B

Class Hours: 1 lecture, 2 lab

Continues Introduction of modern jazz, emphasizing style and form as well as increased technical and choreographic skills. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M11D – 2 Units**Modern Jazz IV-Advanced**

Prerequisites: DANC M11C

Class Hours: 1 lecture, 3 lab

Offers advanced review of modern jazz, emphasizing performance for style and form as well as increased technical and choreographic skills. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M12A – 1.5 Units**Modern Dance I-Fundamentals**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces modern dance as an art form. Reviews the fundamental techniques that develop flexibility, strength, control, coordination, endurance and form as well as the basic principles, evaluation and application of dance composition. May be taken four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M12B – 1.5 Units**Modern Dance II-Beginning**

Prerequisites: DANC M12A

Class Hours: 1 lecture, 2 lab

Develops basic modern dance skills and techniques, including simple improvisation and composition as well as the understanding of the principles of alignment and motion. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M12C – 2 Units**Modern Dance III-Intermediate**

Prerequisites: DANC M12B

Class Hours: 1 lecture, 3 lab

Expands appreciation of dance as a creative art form. Focuses on modern dance techniques, emphasizing increased flexibility, strength, and coordination. Reviews dance phrase combinations by integrating rhythm, design, dynamics and motivation. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M12D – 2 Units**Modern Dance IV-Advanced**

Prerequisites: DANC M12C

Class Hours: 1 lecture, 3 lab

Continues exploration of modern dance technique, emphasizing performance, composition and choreography. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M13A – 1.5 Units**Tap I-Fundamentals**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces some history of tap as well as basic tap techniques and elementary dances, routines and rhythm structures. Develops motor coordination and rhythm. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M13B – 1.5 Units**Tap II-Beginning**

Prerequisites: DANC M13A

Class Hours: 1 lecture, 2 lab

Expands tap dancing techniques, including music theory concepts and syncopated rhythms. Further develops motor coordination and rhythm and expands historical awareness. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M13C – 1.5 Units**Tap III-Intermediate**

Prerequisites: DANC M13B

Recommended Prep: DANC M11A and DANC M11B

Class Hours: 1 lecture, 2 lab

Builds on the basic tap vocabulary and techniques introduced and explored previously in levels I (fundamental) and II (beginning). Applies musical theory concepts to the syncopated rhythms of tap dance, providing further development of motor coordination and rhythm. Explores the fusion of tap with other dance techniques. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M13D – 2 Units**Tap IV-Advanced**

Prerequisites: DANC M13C

Recommended Prep: DANC M11C and DANC M11D

Class Hours: 1 lecture, 3 lab

Builds on the intermediate tap dance vocabulary and techniques presented in Tap III. Presents complicated rhythms and syncopations to develop a highly proficient degree of motor coordination and rhythm. Emphasizes the individual in choreographing for Tap Dance. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M14A – 2 Units**Choreography, Modern Dance-Fundamentals**

Prerequisites: DANC M12B

Class Hours: 1 lecture, 3 lab

Introduces basic principles and practical applications of dance composition. Focuses on forms of expression; develops space, time and energy into dance; and integrates dance movement technique as a form of expression. Requires solo and small group choreography and improvisations. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M14B – 2 Units**Choreography, Modern Dance-Beginning**

Prerequisites: Intermediate modern dance class

Class Hours: 1 lecture, 3 lab

Explores dance as a creative art form by integrating dance movement technique as a form of expression to communicate literal and nonliteral themes. Requires solo and small group choreography and improvisations. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M14C – 2 Units**Choreography, Modern Dance-Intermediate**

Prerequisites: Intermediate modern dance class

Class Hours: 1 lecture, 3 lab

Expands dance as a creative art form, combining movement with the use of music and sound. Requires substantial solo work performed in a concert setting. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M14D – 2 Units**Choreography, Modern Dance-Advanced**

Prerequisites: Advanced dance class or equivalent

Class Hours: 1 lecture, 3 lab

Expands dance as a creative art form, combining movement with the use of music and sound. Requires substantial solo work performed in a concert setting. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M15 – 2 Units**Choreography**

Prerequisites: Two of the following courses: DANC M10C, DANC M11C, DANC M12C

Corequisite: DANC M51A or DANC M51B or DANC M51C, or DANC M51D

Recommended Prep: Concurrent enrollment in DANC M55.

Class Hours: 1 lecture, 3 lab

Introduction to the theory and techniques of dance composition. Elements of choreography are applied to dance improvisation, ballet, jazz, and modern dance. The focus of movement is enhanced through the analysis of basic problems and issues of choreography. Emphasis is placed on student application of choreographic concepts through the development of solo and group movement compositions. May be taken a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M16A – 1.5 Units**Hip Hop I - Fundamentals**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces the fundamentals of hip-hop dancing, pop and lock, hip-hop funk, krumping, freestyling, break dancing, syncopations and rhythms as applied in commercial hip-hop venues. Develops flexibility, strength, control, coordination, endurance, style and the understanding and appreciation of hip-hop and its cultural significance and history. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M17 – 3 Units**Musical Dance Theatre**

Prerequisites: None

Recommended Prep: DANC M11A, DANC M11B

Class Hours: 9 lab

Introduces a compilation of dances choreographed for performance specific to the American musical in either a complete production of a single musical or as a revue of dance production numbers from two or more musicals. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M20A – 1.5 Units **Free Dance/Improvisation I**

Prerequisites: None

Recommended Prep: Concurrent enrollment in modern dance

Class Hours: 1 lecture, 2 lab

Encourages joy of movement, allowing unique and creative expressions in dance. May be taken for a total of four (4) times for credit. (Same course as THA M17.) Applies to Associate Degree. Transfer credit: CSU; UC

DANC M20B – 1.5 Units **Free Dance/Improvisation II**

Prerequisites: DANC M20A

Class Hours: 1 lecture, 2 lab

Provides creative, free environment and encourages expressive dance movements for enjoyment, communication and performance. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M20C – 1.5 Units **Free Dance/Improvisation III**

Prerequisites: A beginning dance class

Class Hours: 1 lecture, 2 lab

Encourages creation of appropriate movement responses to express ideas and feelings. Provides various stimulus situations to develop organic, spontaneous dance responses. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M22A/B – 1 to 3 Units **Independent Studies in Dance**

Prerequisites: A previous course in Dance

Class Hours: 0.5 to 3 as arranged

Allows an independent project (approved by instructor and dean) to expand knowledge of dance through research, lab work or field trips. Includes one-on-one work with instructor. May be taken for a maximum of six (6) units. Applies to Associate Degree. Transfer credit: CSU; UC (determined after admission)

DANC M25 – 1.5 Units **Adaptive Dance**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces the basics of a variety of dance forms such as ballet, modern, jazz, tap, ballroom, and world dance including folk, line and square dance to students who are facing physical and cognitive challenges. Encourages responses to music, rhythm, and dance as an opportunity for self-expression of unique abilities and for the development of interpersonal relationships. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M30A – 1.5 Units **Ballroom I**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces history, music and fundamental practices of ballroom dancing. Includes basic steps, variations and styling techniques for the fox-trot, swing, waltz, cha-cha, tango, rumba, samba, mambo, polka and selected novelty dances. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M30B – 1.5 Units **Ballroom II**

Prerequisites: DANC M30A

Class Hours: 1 lecture, 2 lab

Expands expertise in ballroom dancing by reviewing basic steps and increasing styling techniques for the fox-trot, swing, waltz, cha-cha, tango, rumba, samba, mambo, polka and selected novelty dances. Requires attendance at out of class dance. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M31A – 1.5 Units **World Dance I**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces students to a variety of world dance forms. Participation in movement forms from an array of cultures, and lectures on history, culture, and movement content. Facilitates a student's cultural awareness, personal expression in a new art form, and provides an arena for interactive learning. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M31B – 1.5 Units **World Dance, Ethnic Folk Forms II**

Prerequisites: DANC M31A

Class Hours: 1 lecture, 2 lab

Continues study of Folk, Square, and Ethnic dance skills. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M32 – 1.5 Units **Swing Dance**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces American Swing Dance in the 20th century, exploring dance vocabulary, dance courtesy, fundamentals of music related to dance and dance history. Includes vintage dance forms as well as current trends. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M33 – 1.5 Units **Western Line Dance**

Prerequisites: None

Class Hours: 1 lecture, 2 lab

Introduces an overview of Western Line Dance from 1980 to the present, exploring movement theory, dance vocabulary, dance courtesy, fundamentals of music as they relate to dance, and history. Includes vintage dance forms as well as current trends. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M40 – 2 Units **Ballet Variations**

Prerequisites: DANC M10B

Class Hours: 1 lecture, 3 lab

Continues development of technical skills with emphasis on developing artistic expression through exposure to classical and contemporary variations. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M43 – 2 Units**Jazz Dance Roots**

Prerequisites: DANC M11C

Class Hours: 1 lecture, 3 lab

Explores the origins and influences of jazz and their effect on the styles and trends of the day. Reviews contributions from international dance companies and dance innovators, including Martha Graham, Jack Cole, Katherine Dunham, Bob Fosse, Agnes DeMille and Jerome Robbins. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M50 – 3 Units**Performing Arts Management**

Prerequisites: None

Class Hours: 2 lecture, 3 lab

Introduces the marketing, promotion and sales of theatrical, music, dance and all other performance events. Studies the theories and practices of selecting a subscription season, creating marketing materials, operating the box office and interfacing with the public in the “front of the house.” The practical lab component requires participation in various management and services activities throughout a Performing Arts Center. (Same as MUS M50 and THA M50). Applies to Associate Degree. Transfer credit: CSU

DANC M51A – 1.5 Units**Dance Performance/Production I**

Prerequisites: Beginning dance class

Recommended Prep: Concurrent enrollment in dance class

Class Hours: 1 lecture, 2 lab

Introduces and then applies basic elements of production (staging, lighting, publicity, makeup, costumes, set design and construction) through participation in a staged event/dance. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M51B – 1.5 Units**Dance Performance/Production II**

Prerequisites: DANC M51A

Recommended Prep: Concurrent enrollment in dance class

Class Hours: 1 lecture, 2 lab

Requires practical involvement in the elements of dance production behind the scenes as well as on stage. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M51C – 1.5 Units**Dance Performance/Production III**

Prerequisites: Beginning dance class

Recommended Prep: Concurrent enrollment in another dance class

Class Hours: 1 lecture, 2 lab

Emphasizes practical experience of dance productions, concerts and demonstrations, emphasizing dance as a performing art. Reviews choreography, staging and the production elements of dance. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M51D – 2 Units**Dance Performance/Production IV**

Prerequisites: Intermediate dance class

Recommended Prep: Concurrent enrollment in dance class

Class Hours: 1 lecture, 3 lab

Offers practical experience in the many phases of dance productions, concerts and demonstrations. Focuses on dance performance with some review of choreography and staging. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC

DANC M52 – 3 Units**Children’s Theatre**

Prerequisites: None

Recommended Prep: DANC M20A or THA M17

Class Hours: 2 lecture, 4 lab

Offers practical experience in the rehearsal and performance of a children’s theatre production. Includes both dramatic and movement-based components. May be taken for a total of four (4) times for credit. (Same course as THA M52.) Applies to Associate Degree. Transfer credit: CSU

DANC M55 – 0.5-2.0 Units**Dance Rehearsal & Performance**

Prerequisites: None

Class Hours: 1.5-6 lab

Rehearsal and performance based course focusing on learning repertory choreographed by students, faculty and guest artists. Explores various styles and genres of artistic dance, including ballet, modern, tap, hip hop, jazz, and ethnic dance traditions. Course culminates in a performance of the works learned in a formal concert environment. Number of units acquired is based on hours of class attendance. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU; UC (under review)

DANC M60A-Z – 1 to 3 Units**Topics in Dance**

Prerequisites: To be determined

Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semesters Schedule of Classes. Transfer credit: determined by transfer institution.

DANC M80 – 1 to 4 Units**Internship in Dance**

Prerequisites: Completion or concurrent enrollment in a course in the discipline.

Class Hours: 3 to 33 work experience hours as arranged

Provides on-the-job learning to enhance course work under the direct supervision of faculty and industry supervisors. Both supervisors provide feedback and written evaluation. Some meetings and workshops may be required as part of the course. To take this course, contact the Career Transfer Center, (805) 378-1536. May be taken for a total of four (4) times for credit. (Same course as WEXP M20.) Applies to Associate Degree. Transfer credit: CSU

Design

See Courses in Art, Graphics, and Interior Design