AUTO 135. Domestic Electronic Engine Controls OBD-I-II (3)
Lec-3, lab-3, field trips
Repeat: max. 9 units
An in depth study into Domestic Automotive Engine Computer Control OBD-I-II Systems. Exploration of the operation, diagnosis, and repair of Domestic Automotive Electronic Engine Computer Control Systems. General diagnosis will be emphasized using multimeters, scan tools, manuals, and lab scopes. CSU

AUTO 137. Gaseous Alternative Fuel Systems (3)
Lec-3, lab-1, field trips
Repeat: max. 9 units
A course to familiarize students with the following as related to gaseous fuels: 1) purpose of alternative fuels, 2) alternative fuels legislation, 3) refueling procedures, 4) fuel system inspection, 5) system components nomenclature, 6) system adjustment, 7) component replacement, 8) drivability and diagnosis. CSU

AUTO 138. Automatic Transmissions and Transaxles (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
An in-depth study of automatic transmissions and transaxles. Basic study of electronic controls. General diagnosing using manuals, multimeters, flow charts and scan tools, along with pressure gauges. CSU

LABR 96B. Labor Relations in the Automotive Industry (3)
See Labor Studies listings for course description.

NONCREDIT COURSES:

TIAU 9510. Advanced Suspension, Alignment and Brakes (108 hrs)
Development of advanced skills in suspension alignment and brake systems. Emphasis is on theory and actual shop experience.

TIAU 9513. Basic Auto Maintenance (105 hrs)
Emphasis is on the proper operation, maintenance, and interdependence of the various units of the automobile. Includes the design and construction of the engine and the various systems of the automobile.

TIAU 9530. Air Conditioning, Automotive (48 hrs)
Advise: TIAU 9512
Repair of automotive air conditioning systems including identifying problems, “trouble-shooting” practices, leak detection and maintenance procedures. Includes diagnosis, removal, repair, reassembly of components and replacement of units for automotive air conditioning systems.

TIAU 9532. Lamp License Preparation, Automotive (48 hrs)
Advise: TIAU 9512
Preparation for the State of California Automotive Lamp Adjusting License. Includes practices and procedures for the installation and adjustment of motor vehicle lamp systems and study of California laws and regulations related to the installation and adjustment of motor vehicle lamp systems.

TIAU 9533. Brake License Preparation, Automotive (48 hrs)
Advise: TIAU 9515
Preparation for the State of California Automotive Brake Adjusting License. Repair and maintenance of automotive brake systems consistent with California regulations pertaining to brake adjusting and station operation, and with industrial standards. Completion of certificates of compliance under California regulations.

TIAU 9535. Smog Control For Levels I & II (16 hrs)
Advise: TIAU 9522, 9511, 9512, and 9515
Study of and practice in automotive smog systems in reference to California Requirements. Level 1 includes use of smog check inspection & repair manuals, emission control system applications guide, automotive emission control repair manual and completion of the California Inspection worksheet. Level II includes use of a BAR approved TAS analyzer for vehicle inspection, performance of functional test procedures and performance of complete inspections on a minimum of five vehicles.

TIAU 9538. Automotive Electronics VII - Computers/Chrysler (48 hrs)
Advise: TIAU 9512 and 9539
Diagnosis and repair of automotive computers and related systems in Chrysler manufactured vehicles. Instruction includes the identification and analysis of problems, troubleshooting practices and maintenance of units. Also covered are the procedures for diagnosis of computer units, removal, disassembly, repair, reassembly and replacement of units in Chrysler manufactured vehicles.

TIAU 9539. Automotive Electronics IV - Introduction to Computers (48 hrs)
Advise: ABE 2074; TIAU 9523 and 9512
Concepts, principles and practices for automotive computers and control systems including demonstrated use of testing meters and circuit testing devices. Students will demonstrate concepts and practices for diagnosis and testing. Instruction includes reasons for computer controls, solid-state ignition systems, how computers work, twelve (12) computer functions in automobiles and input and output devices used in automobiles.

TIAU 9541. Emission Control and Computer Systems (108 hrs)
Advise: TIAU 9517, 9536 and 9539
Diagnosis and repair of automotive emission control and computer systems.

Biological Sciences

Announcement of Curricula

Biomanufacturing

Certificate Program

Over the past several years an important change has been taking place in the biotechnology sector. Biotech companies are shifting their focus from exclusively research and development to a mix of drug production and research. This change has been precipitated by a rapidly increasing collection of FDA-approved biotech pharmaceuticals. The San Francisco Bay area has the highest concentration of biotech companies of the world.
The shift towards increasing production of biotech products created a demand for a new set of skills among entry-level workers in the field. The requirements for the certificate in biomanufacturing described here will prepare students for entry into the field as a bioprocess technician, media prep technician, pharmaceutical materials specialist, or pharmaceutical manufacturing technician.

The one-year certificate in biomanufacturing described here requires a subset of the courses required for the two-year Certificate in Biotechnology.

**Admission.** The biomanufacturing certificate program is open to anyone. High school algebra, biology and chemistry are recommended. For more information, call 415-239-3180.

**Requirements for the Certificate of Completion in Biomanufacturing**

The requirements for the certificate are completion of the following courses with a grade of C or higher:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 840 Elementary Algebra</td>
<td>3</td>
</tr>
<tr>
<td>BIO 11 Intro to the Science of Living Organisms</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 32 Intro to Medical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 33 Adv Med Chemistry and Biotech</td>
<td>4</td>
</tr>
</tbody>
</table>

The following courses would be recommended but not required:

- GEN 10, M B 12, BIO 50

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### Biological Sciences

#### Announcements of Courses

**CREDIT, DEGREE APPLICABLE COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 14, Introduction to Human Anatomy and Physiology</td>
<td>3</td>
<td>Lec-3, lab-3</td>
</tr>
<tr>
<td>Not open to students who have completed ANAT 25 or PHYS 1 or PHYS 12 with a C or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>An integrated course covering the fundamental principles of human anatomy and physiology. CSU/UC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANAT 25, General Human Anatomy</td>
<td>4</td>
<td>Lec-3, lab-3</td>
</tr>
<tr>
<td>CR/NC avail. Study of the gross and microscopic structure of the human body.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANAT 26, Sectional Anatomy</td>
<td>1</td>
<td>Lab-3</td>
</tr>
<tr>
<td>CR/NC avail. Study of the gross structure of the human body according to region as visualized in cross sections and sagittal sections. CSU</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Anthropology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1, Biological Anthropology</td>
<td>3</td>
<td>Lec-3, lab-3</td>
</tr>
<tr>
<td>CR/NC avail. The biological nature of humans and the changes that have occurred from prehistoric times to the present. The place of humans in nature, vertebrate and primate evolution, fossil evidence for human antiquity, individual and population genetics, mechanisms of evolution, and human variation. CSU/UC</td>
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<td></td>
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</tbody>
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### Biology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 9, Human Biology</td>
<td>4</td>
<td>Lec-3, lab-3</td>
</tr>
<tr>
<td>CR/NC avail. An introduction to general biological principles through the study of the structure and functions of the human body and directly related organisms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 11, Introduction to the Science of Living Organisms</td>
<td>4</td>
<td>Lec-3, lab-3, field trips</td>
</tr>
<tr>
<td>CR/NC avail. Introductory level lecture and laboratory course covering the major fundamental concepts required for understanding biological processes, a survey of living organisms, organismic structure and function, and an introduction to the principles of biotechnology.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 15, The Biology of HIV</td>
<td>3</td>
<td>Lec-3, lab-3, field trips</td>
</tr>
<tr>
<td>CR/NC avail. Introductory survey of the biology of human immunodeficiency virus (HIV) and AIDS. The life cycle of HIV and retroviruses; HIV transmission, epidemiology, immunology, and pathogenesis; and HIV prevention and treatment.</td>
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</tr>
</tbody>
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BIO 16. Studying the Biological Sciences (1)
Lec-2, field trips        CR/NC only
An in-depth orientation to the academic life and culture of transfer biology majors. Students will acquire concepts, skills and information necessary for making a successful transition to upper division biology programs at four-year institutions, and for choosing professional careers in science. CSU/UC

BIO 20. Introduction to Ecology (3)
Lec-3, field trips
Not open to students who have completed BIO 20A.
Ecological principles and methods. Introduction to population, community, and ecosystem ecology. Analysis of the interrelationships between organisms and their environments. Investigation of terrestrial, freshwater, and marine environments. CSU/UC

BIO 21. Natural History of California (2) Weekend
Lec-1, lab-3, field trips        CR/NC avail.
A series of field trips to specific California ecosystems. Emphasis on the general concepts of ecosystem analysis and the interaction of climate, physiography, and biotic factors in shaping varied habitats within California. CSU

BIO 22. Natural History of the Sierra Nevada (1)
Lec-1, lab-3, field trip        CR/NC avail.
An examination of the geology, biology, and human history of the Sierra Nevada from Lake Tahoe basin to high altitude. A study of the interrelationships of plants, animals, and humans at high elevation. CSU

BIO 23. Ecology of Mendocino (1)
Lec-1, lab-3, field trip        CR/NC avail.
Not open to students who have completed BIO 81, Selected Topic: Ecology of Mendocino.
An examination of the geology, biology and human history of Mendocino County. A study of the interrelationships of plants, animals and humans to the forests and coastal regions of Northern California. CSU

BIO 24. Ecology of Point Reyes (1)
Lec-1, lab-3, field trip        CR/NC avail.
Not open to students who have completed BIO 81, Selected Topic: Ecology of Point Reyes.
An examination of the geology, biology and human history of Point Reyes National Seashore. A study of the interrelationships of plants, animals and humans to the forests, grasslands and coastal regions of the park. CSU

BIO 25. Ecology of San Francisco Bay (1)
Lec-1, lab-3, field trip        CR/NC avail.
An examination of the geology, biology, chemistry, and human history of San Francisco Bay. An analysis of the interrelationships of plants, animals, and humans to the diverse ecosystems which comprise the San Francisco Bay. Investigation of the terrestrial, freshwater and marine environments. CSU

BIO 26. Habitat Restoration Field Studies (1)
Lec-1, field trips        CR/NC avail.
A biology field class that examines the principles of habitat restoration and environmental rehabilitation. CSU

BIO 28. Ecology of the Golden Gate National Recreation Area (1)
Lec-1, field trips        CR/NC avail.
An ecology field class that examines the geology, biology, ecology and human history of the Golden Gate National Recreation Area. CSU

BIO 30. Ecology and the Human Environment (3)
Lec-3, field trips
Not open to students who have completed BIO 20B.
Examination of the human environment with emphasis on the causes of human-made pollution, health effects, and possible solutions. CSU/UC

BIO 32. Marine Biology (3)
Lec-3, field trips        CR/NC avail.
The natural history of California marine plants and animals with emphasis on the interrelationships between marine life and their environment. CSU/UC

BIO 32L. Marine Biology Laboratory (1)
Lab-3, field trips        CR/NC avail.
Coreq.: BIO 32 or IDST 9
A laboratory course, utilizing a laboratory/field trip format, designed to reinforce and augment the student's understanding of basic principles of marine biology as taught in BIO 32/IDST 9. CSU/UC

BIO 35. Biological Field Monitoring (3)
Lec-3        CR/NC avail.
An overview of the theories and practices of field monitoring, as well as its practical applications to ecological research. CSU

BIO 40. Natural History of Plants and Animals (3)
Lec-3, lab-1        CR/NC avail.
Behavior, habitats, life histories, and identification of the common plants and animals of California: emphasis on the plants and animals of the Bay Area and Northern California. CSU/UC

BIO 50. Briefings in Biotechnology (1)
Lec-2 (9 wks), field trips        CR/NC avail.
Underlying principles of molecular biology and the laboratory procedures involved in the biotechnology industry. Examples of new products, processes, and prospects for the future in medicine, environmental restoration, forensics, and agriculture. Implications for society and governmental regulations. Features lectures by scientists currently working in the biotechnology industry. CSU

BIO 55. Ethical Issues in Science (3)
Lec-3, field trips        CR/NC avail.
Principles of ethics and their application in scientific work. Issues to be considered include professional ethical standards, relationship of science to public policy, role of government regulations and rationale for scientific research. Case studies will be drawn from areas of current concern in biotechnology, genetic engineering, and other scientific fields. CSU

BIO 55 = CHEM 55

BIO 60. Molecular and Cell Biotechnology (5)
Lec-3, lab-6        CR/NC avail.
Coreq.: BIO 11 and CHEM 50, 51, 52, 53
A thorough introduction to the principles and techniques of molecular and cell biology. This is a required course for the Biotechnology Technician Preparation curriculum. CSU
**BIO 65. Recombinant DNA Biotechnology (5)**
Lec-3, lab-6, field trips
Advise: BIO 11 and CHEM 50, 51, 52, 53
An in-depth coverage of recombinant DNA/genetic engineering concepts and principles with a strong emphasis on the laboratory procedures involved in DNA manipulation. CSU

**BIO 71-72-73-74. Selected Topics in Biology (1-4)**
Lec-1, 2, 3, 4; lab-3; field trips
Repeat: if no subject repeat
Investigation in depth of selected topics in biology: considering current issues and innovations; expanding subjects covered briefly in introductory courses; or exploring topics not studied in other classes in biology. CSU

**BIO 80. Selected Topics in Biology (0.5)**
Lab-1.5, field trips
Repeat: max. 1.5 units
Investigation in depth of selected topics in biology: considering current issues and innovations; expanding topics covered briefly in other classes; or exploring topics in biology not studied in other classes. CSU

**BIO 81-82-83-84. Selected Topics in Biology (1-4)**
Lec-1, 2, 3, 4; lab-3; field trips
Repeat: BIO 81, 82, 83, & 84 no more than 2 times
Investigation in depth of selected topics in biology: considering current issues and innovations; expanding subjects covered briefly in introductory courses; or exploring topics not studied in other classes. CSU

**BIO 82A. Integrated Biotechnology**

**BIO 90. Biology Laboratory (0)**
Lab-var
An open laboratory in which students may complete an assignment. CSU

**BIO 91-92-93. Biology Work Experience (1-2-3)**
Work-5,10,15
Coreq.: BIOLOGY COURSE
Repeat: BIO 91, 92, & 93 no more than 3 times
On-campus work consists of instruction and experience in the preparation, care, and maintenance of equipment, materials, training aids, and specimens used in the Biology Department. CSU

**BIO 101A. General Biology (5)**
Lec-3, conf-2, lab-4
Prereq.: One yr. HS biology or BIO 11 or demonstration of BIO 11 exit skills; and CHEM 101A
Not open to students who have taken BIO 1B.
BIO 101A is not a prerequisite for BIO 101B.
A general introduction to cell structure and function; cell biochemistry; the cell cycle; principles of molecular and organismic genetics and genetic engineering. Intended for students majoring in the biological sciences but open to all qualified students. CSU

**BIO 101B. General Biology (5)**
Lec-3, conf-2, lab-4
Prereq.: One yr. HS biology or BIO 11 or demonstration of BIO 11 exit skills; and completion/concurrent enrollment in CHEM 101A
Not open to students who have taken BIO 1A.
BIO 101A is not a prerequisite for BIO 101B.
A general introduction to the form and function of major groups of organisms including the plants and animals; population genetics; evolution and ecology. Intended for students majoring in the biological sciences but open to all qualified students. CSU

**Botany**

**BOT 10. Plant Biology (4) sp**
Lec-3, lab-3, field trips
Emphasis on the structure, metabolism, life history, and evolutionary relationships of the major groups of plants. Lectures on plant ecology, world vegetation types, and commercial uses of plants. CSU/UC

**Genetics**

**GEN 10. Heredity and Evolution (3) fa**
Lec-3
CR/NC avail.
A general survey of the basic principles of organic evolution. Classical and population genetics, molecular genetics, chromosomal aberrations, variation, natural selection, adaptive radiation, theories of the origin of life. CSU/UC

**GEN 11. Genetics Laboratory (1)**
Lab-3, field trips
Prereq.: Completion/concurrent enrollment in GEN 10 or 15
Hands-on laboratory techniques and experiments to illustrate classical and modern molecular genetics including the use of DNA in forensics, cloning genes, and genome analysis. CSU/UC

**GEN 15. Human Genetics (3)**
Lec-3
CR/NC avail.
Basic principles of human genetics. Genetics in development, health and behavior. Family and population genetics. Effects of mutation, assortive mating, and reproductive rates upon gene distribution. Problems anticipated from projected advances in "human engineering." CSU/UC

**Microbiology**

**MB 12. Introduction to Microbiology (4)**
Lec-3, lab-4, field trips
CR/NC avail.
Prereq.: CHEM 32 or demonstration of CHEM 32 exit skills
An introduction to microbiology, treating the fundamentals of form and function of microorganisms such as bacteria, fungi, protozoa, and viruses. Emphasis on the role of microorganisms in the transmission of infectious disease and in the development of the immune response. CSU/UC
M B 51. Sanitation Principles and Practices (1)
Lec-1 CR/NC avail.
Principles of buying, storing, preparing, and serving food to insure the safety of food for human consumption; the importance and practice of sanitary habits by food service personnel; causes of food poisoning and food spoilage; the principles and practices of public health and food service managerial procedures to insure sanitary food for the public; public health laws. CSU

Nutrition

NUTR 12. Introduction to Nutrition (3)
Lec-3 CR/NC avail.
The nature and physiological roles of the dietary nutrients, their food sources and requirements. Relation of diet to health and disease, evaluation of dietary adequacy. Examination of current issues and controversies in nutrition. CSU/UC/CAN

NUTR 51. Elementary Nutrition (2)
Lec-2 CR/NC avail.
A nontechnical presentation dealing with foods, the relationship of food to the human body, and a plan for healthful eating. CSU

Physiology

PHYS 1. Introductory Human Physiology (5)
Lec-3, lab-6
Advisement: HS chemistry or 3 units of college chemistry
The physiology of cells, muscles, the nervous system, sensation, digestion, circulation, respiration, metabolism, excretion, endocrine, and reproduction. CSU/UC/CAN

PHYS 12. Introduction to Human Physiology (4)
Lec-3, lab-3
Not open to students who have completed PHYS 1
Advisement: CHEM 32, 40, or HS chemistry
Fundamental principles of human physiology. CSU/UC

Zoology

ZOOL 10. Animal Biology (4)
Lec-3, lab-3, field trips
ZOOL 10 is designed for students not specializing in biology, zoology, botany, or the medical sciences and is not open for credit to students who have taken BIO 101A, 101B, 11, or PHYS 1
A survey of the biology, ecology and evolution of animals, including both invertebrates and vertebrates. CSU/UC

Broadcast Electronic Media Arts

General Information

The Broadcast Electronic Media Arts department prepares students for university transfer and provides lifelong learners and degree holders the opportunity to upgrade workplace skills and prepare for career transition. Graduates either transfer to a university or seek employment in radio, television, video production, cable, broadcast news, advertising, public relations, sound reinforcement, music recording, interactive media, corporate, and industrial media production.

Program Emphasis. The department offers instruction in the design and creation of content for the electronic media with focus on writing, storytelling, teamwork, leadership, production craft skills, and emerging technologies. Media literacy is emphasized throughout the curriculum.

Admission. Enrollment is open to all interested students. Please note that some classes have prerequisites, corequisites, and advisories.

Work Experience and Internships. Students enrolled in Broadcast Electronic Media Arts classes refine skills in an in-house internship program which provides the College with media services, video production services, programming for education access television, and support for the college public relations office. After basic thinking and production craft skills are mastered, students are supported in internships at industry sites such as radio stations, television stations, video production houses, sound recording studios, and emerging media companies.

Transfer Information. All Broadcast Electronic Media Arts courses are credit and degree applicable, and selected courses transfer to the CSU and/or UC systems. Students are encouraged to work with a college counselor and a department program advisor to establish an education plan during the first semester of study. For additional information consult the "Transfer Information" section of this catalog.

Facilities and Equipment. Broadcast Electronic Media Arts facilities have undergone extensive upgrades which include installation of a digital video editing lab, digital audio production lab, hybrid sound recording studio, teleproduction studio, and a digital cable FM radio station. San Francisco’s Educational Access Television Channel 27 cable casts city-wide from the department’s facilities.

Additional Information. Consult the Department Chair for more information at (415) 239-3527.

Certificate Curricula

The Broadcast Electronic Media Arts certificate program is recommended for those seeking to acquire entry-level skills, or upgrade and retool skills, and for lifelong learners preparing for career transition. The department offers four certificate programs: 1) Broadcast Journalism, 2) Digital Radio, 3) Sound Design and Production, and 4) Video Production and Editing. Each course sequence is designed to provide students with an opportunity to develop and refine essential workforce skills for entry-level employment in the electronic media industry.

Requirements for the Certificate of Completion. Students may obtain the Certificate of Completion in Broadcast Electronic Media Arts by completing each course in their program of study with a final grade of C or higher.

Broadcast Journalism

This certificate provides students with news research, writing, reporting, and packaging skills for entry-level employment in radio, television, cable, syndicated, Internet, and satellite news organizations. The Broadcast Journalism certificate is recommended for degree holders seeking to upgrade skills for career transition.
First Semester
Course                                         Units
BCST 100 Intro to BCST Electronic Media........... 3
BCST 110 Writing for BCST Electronic Media ........ 3
BCST 115 Announcing and Performance ............... 3
BCST 109 Broadcast Production Lab.................. 0

Second Semester
BCST 113 Broadcast Journalism .................... 3
BCST 112 Investigative Reporting
  or BCST 130 Radio News and Public Affairs .......... 3
BCST 109 Broadcast Production Lab.................. 0
BCST 165A/B Industry Internship .................... 2

Digital Radio
This certificate provides students with practical production and performance craft skills for entry-level employment in contemporary radio.

First Semester
Course                                         Units
BCST 100 Intro to BCST Electronic Media........... 3
BCST 119 Digital Media Skills ...................... 3
BCST 120 Audio Production.......................... 3
BCST 109 Broadcast Production Lab.................. 0

Second Semester
BCST 165A/B Industry Internship .................... 2
BCST 109 Broadcast Production Lab.................. 0

Choose Option #1 or Option #2
Option #1:
BCST 110 Writing for BCST Electronic Media
  and BCST 130 Radio News and Public Affairs .......... 6

Option #2:
BCST 115 Announcing and Performance
  and BCST 131 Radio Production and Perform .......... 6

Sound Design and Production
This certificate combines the study of audio and sound design as used in contemporary professional settings. Students implement sound theory and techniques using the tools of the craft. Graduates are prepared for entry-level positions in radio, television, audio production facilities, sound recording studio seconds, advertisement agency production crews, sound for video, sound reinforcement, on-site music recording, and entrepreneurial sound projects.

First Semester
Course                                         Units
BCST 119 Digital Media Skills ...................... 3
BCST 120 Audio Production.......................... 3
BCST 109 Broadcast Production Lab.................. 0

Second Semester
BCST 124 Digital Audio Production .................. 3
BCST 125 Sound Recording Studio .................... 4
BCST 165A/B Industry Internship .................... 2
BCST 109 Broadcast Production Lab.................. 0

Video Production and Editing
This certificate provides basic video production and editing craft skills for entry-level employment in video production and editing for television, advertising, public relations, multimedia, education, music, theater, film, entrepreneurial projects and media departments of agencies, businesses, and institutions.

First Semester
Course                                         Units
BCST 100 Intro to BCST Electronic Media........... 3
BCST 119 Digital Media Skills ...................... 3
BCST 140 Video Production........................... 3
BCST 109 Broadcast Production Lab.................. 0

Second Semester
BCST 110 Writing for BCST Electronic Media ........ 3
BCST 143 Digital Video Editing ...................... 3
BCST 165A/B Industry Internship .................... 2
BCST 109 Broadcast Production Lab.................. 0

Multimedia Image and Sound
Multimedia Studies is a multi-discipline curriculum in the design, development, tools, and production of computer-based interactive media. Five areas of concentration include Multimedia Animation, Multimedia Web Design and Graphics, Multimedia Image and Sound, Multimedia Performance Arts, and Multimedia Computer Programming. (See Multimedia Studies in the Interdisciplinary Studies section of this catalog for complete details.)

Multimedia Image and Sound combines instruction and practice with concepts, techniques, and technology of audio and video production for interactive digital media. This course of study prepares students for entry-level positions in multimedia image and sound production. Graduates seek employment producing CD ROM titles, world wide web pages, electronic books, and other interactive media.

Announcement of Courses
Students enrolled in Broadcast Electronic Media Arts lecture and laboratory courses may be required to purchase additional materials such as audio tape, videotape, headphones, floppy disks, Zip cartridges, Jazz cartridges, DAT tape, and digital multitrack hi-8 tape. Students may be charged a materials use fee.

CREDIT, DEGREE APPLICABLE
BCST 100. Introduction to BCST Electronic Media Arts (3)
Lec-3
Advise: ENGL 94
An introduction to electronic media such as radio, television, and cable. A survey of emerging technologies such as direct satellite broadcast, interactive television, webcasting, and their application to broadcast electronic media. Emphasis on organization history, political development, operation, regulation, programming, business practices, and career orientation. CSU
BCST 101. Media Literacy (3)
Lec-3
Advise: SPCH 1A or 11
Critical analysis of structure, economics, aesthetics, language, and technical aspects of radio, television, cable, and satellite programming. Methods of interpreting the visual and oral messages present in news, entertainment, and advertising. Impact of emerging technologies on program content and form. CSU

BCST 102. New Media: Navigating the Information Age (3)
Lec-3
Survey of new electronic media such as interactive teleconferencing and videophone, direct broadcast satellite, digital radio and television, interactive television, desktop audio and video production, virtual news sets, holographic sportscasts, webcasting, computer-based broadcast news production, multimedia, digital cable, and wireless systems. Application of communication theories and research using technological, historical, social, and political perspectives. Impact of emerging communication technologies on broadcast electronic media. CSU

BCST 103. Mass Media and Society (3)
Lec-3
A general interest course covering the history, organization and social role of major mass communication media, such as radio, television, motion pictures, print, recording industries, multimedia, the Internet, and the World Wide Web. Basic theory of communication and communication research. Emphasis on the influence of mass media on the individual and society. CSU/UC

BCST 104. Minorities and the Mass Media (3)
Lec-3, field trips
Advise: ENGL 94
A historical study of the image of African Americans, Asians, Hispanics, and other minorities as projected through the mass media of print, film, radio, television, and recorded music. Ways in which minorities have responded to these images through general and ethnic media outlets. CSU/UC

BCST 105. Women and Mass Media (3)
Lec-3, field trips
An exploration of the mass mediated messages—radio, television, film, print, and the Internet—about women. A critique of roles given to women. An update on opportunities for women in each of the mainstream and alternative media industries. CSU

BCST 106. Queer TV: Television and Lesbian and Gay Identity (3)
Lec-3 CR/NC avail.
Examination of how gays, lesbians, bisexuals, and transgendered people are represented in and by the mainstream electronic media with strong emphasis on television. CSU

BCST 109. Broadcast Production Laboratory (0)
Lab-8
Prereq.: BCST 113, 117, 119, 120, 124, 125, 127, 130, 131, 132, 140, 142, 143, 144, 145, 146, 147, 150
Supervised audio, video, television, news, and sound recording production facilities and equipment for students to complete broadcast production assignments given in broadcast electronic media arts production classes. CSU

BCST 110. Writing for Broadcast Electronic Media (3)
Lec-3
Techniques of non-dramatic writing for electronic media including television, radio, cable, satellite, and webcast. Critique of professional and student scripts including commercials, news, public service announcements, infomercials, news services, and information providers. CSU

BCST 112. Investigative Reporting for Broadcast Electronic Media (3)
Lec-3
Prereq.: BCST 110
Investigative techniques used in radio television, cable, and webcast news. Research methods, interviewing methods, reporting techniques, story development techniques, story analysis, and writing methods for electronic media news. Introduction to digital media news gathering skills and news equipment, World Wide Web news gathering, and electronic news reporting by world media services and organizations. CSU

BCST 113. Broadcast Journalism (3)
Lec-3, lab-3
Prereq.: BCST 110 and 115
Repeat: max. 6 units
Writing, announcing, producing, packaging, and evaluating radio, television, cable, and satellite news. An examination of news formats, news judgment, social impact, and broadcast news ethics. Impact of emerging technologies on broadcast news. CSU

BCST 115. Announcing and Performance (3)
Lec-3
Advise: BCST 120
Introduction to interpretation of copy, pronunciation, and announcer’s duties for radio, television, cable, and webcast. Practical experience announcing commercials, news, public service, and other kinds of programs. Performance skills are developed through regular use of audio and video facilities and equipment. CSU

BCST 117. Sports Announcing and Production (3)
Lec-3, lab-3
Repeat: max. 6 units
Prereq.: BCST 115 and 131 or 140 or demonstration of their exit skills.
All aspects of sports announcing and production for radio, television, cable, satellite, and the Internet. An exploration of sports coverage history, issues, technology, production, play-by-play announcing, color announcing, and career opportunities. Students will announce and produce live and live-on-tape broadcasts of City College sports events. CSU

BCST 119. Digital Media Skills (3)
Lec-2, conf-1, lab-1
Repeat: max. 6 units
An overview of computer operations, industry standard software and other equipment common to digital radio, video, audio, and film production and editing. Introduction to the issues and impact of new technology in the audio, video, film industries. An examination of bandwidth, compression, cross-platform movement of audio, video, radio, and film media, media storage, and manipulation of media in the digital realm. CSU
BCST 120. Audio Production (3)
Lec-3, lab-4
Theory and operation of audio production facilities and equipment. Theoretical and aesthetic aspects of sound, acoustics, audio signal flow, sound recording, sound mixing, sound for video, and sound reinforcement. Proper use of microphones, recorders, mixing boards, and other common audio production equipment. Introduction to digital sound design. CSU

BCST 124. Digital Audio Production (3)
Lec-3, lab-3
Prereq.: BCST 120; and BCST 119 or IDST 120 or CIS 100M, or Demonstration of Their Exit Skills
Repeat: max. 6 units
Introduction to the digital audio production process. Basic skills of the entertainment/communications/multimedia industries including techniques and equipment currently used in digital audio production. CSU

BCST 125. Sound Recording Studio (4)
Lec-3, lab-6
Prereq.: BCST 120
Advise: BCST 124
Repeat: max. 8 units
Advanced multitrack digital and analog production techniques such as recording, editing, mixdown and mastering, microphone placement for musical ensembles, instruments, vocals, and voice, multi-output board signal flow, music mixing theory, sampling; equalization; limiting, compression, reverberation systems and recording techniques. Production of various types of multi-track studio packages such as demonstration tapes and compact discs, audio tracks for music videos, interview programs, commercial spots, documentaries, and drama. CSU

BCST 127. Advanced Sound Recording (3)
Lec-3, lab-3, field trip
Repeat: max. 6 units
A theory and project-intensive course examining and implementing those skills required for the production of advanced digital multitrack audio presentations. Students will develop the skills necessary to produce complex digital audio projects used for music production, used as sound-for-video and film, and used for audio sweetening. An examination of post-production digital recording and mixing techniques appropriate for sound reinforcement, sound design, and mastering on compact disc. CSU

BCST 130. Radio News and Public Affairs (3)
Lec-2, lab-5
Prereq.: Completion/Concurrent Enrollment in BCST 110
Advise: BCST 100
Repeat: max. 6 units
Practical experience in researching and writing on-air copy for news, public affairs, and promotions. Introduction to specific digital technology created for radio. Composition and development of digitized audio news packages. Web search of story content; developing news beat assignments and sourcing interviews for radio stories. Comprehension of when, why, and how music and sound would enhance or detract from a news package. Students will write all aired content for KCSF 90.9 caFM, City College of San Francisco's student managed and student staffed radio station. CSU

BCST 131. Radio Production and Performance (3)
Lec-2, lab-5, field trips
Prereq.: BCST 120
Advise: BCST 115
Repeat: max. 6 units
Practical experience in radio production work and on-air announcements. Students serve as announcers, news reporters, on-air personalities, and air board operators for City College of San Francisco's closed circuit AM and cable FM radio station KCSF. CSU

BCST 132. Radio Management Skills (4)
Lec-2, lab-8
Advise: BCST 130 and 131
Repeat: max. 8 units
Practical experience managing individuals and small groups within a non-commercial and commercial radio station. A laboratory experience for understanding the dynamics of motivating people to perform creatively and skillfully within the skill sets required of a radio management team. Performance of key tasks which operate a digital radio system; supervising the programming and scheduling of radio station formats. CSU

BCST 140. Video Production (3)
Lec-2, lab-4
Theory and operation of video production equipment and facilities. Video production planning and organization, concept development, program design, project documentation, and production management. Production of studio-based video programming for Cable Television Channel 27 and the district's Media Services video production unit. CSU

BCST 142. Television Studio Operations (3)
Lec-2, lab-4
A basic introduction to video production facilities, equipment, and operations for advanced students in advertising, architecture, design and illustration, electronic engineering, film production, journalism, multimedia, graphic communications, and theatre arts. CSU

BCST 143. Digital Video Editing (3)
Lec-3, lab-3
Prereq.: BCST 140 or FILM 24, plus BCST 119. IDST 120 or CIS 100M, or Demonstration of Their Exit Skills
Repeat: max. 6 units
Digital video editing for video and film projects using industry standard AVID Xpress and Media Composer software on a Macintosh platform. Organizing the video edit, routing a networked video signal, digitizing video signal, creating the EDL, editing theory, editing principles, editing aesthetics, titling and 2D/3D effects, and output of final product from network to videotape. Students complete several short video editing projects. CSU

BCST 144. Desktop Video/Film (3)
Lec-3, lab-3
Prereq.: BCST 140 or FILM 24, plus BCST 119, IDST 120 or CIS 100M, or Demonstration of Their Skills
An introduction to desktop editing skills for video, film, and multimedia projects using Final Cut Pro and other software on a Macintosh platform. CSU
BCST 145. Electronic Field Production (3)
Lec-3, lab-3
PREREQ.: BCST 140
Repeat: max. 6 units
Aesthetic and technical elements of electronic video and audio field production (EFP), with emphasis on concept development, pre-production, production, and post-production. Students assist in creating video packages for air on San Francisco’s Educational Access Television cable channel and for clients of the college’s Broadcast Media Services video production unit. CSU

BCST 146. Digital Video Effects (3)
Lec-3, lab-3
PREREQ.: BCST 143
Repeat: max. 6 units
A survey of video and television production effects using studio, field, and post-production equipment. Emphasis on use of Adobe After Effects, Boris 3-D, AVID MCXpress, Adobe Pemiere, and others. Focus is on practical instruction in a video studio and a digital production environment. CSU

BCST 147. Video Post-Production Editing (3)
Lec-3, lab-6
Repeat: max. 6 units
Advanced, computer-based post production editing using EDL-run linear and non-linear editing systems. Emphasis on A-B roll editing, edit list management, digital video effects, integration of graphics and keys, and video layering. Use of systems such as Avid and Media 100 to edit your own pre-shot video or film to create programs for air, theatrical, or multimedia use. CSU

BCST 150. Special Projects (2)
Conf-1, lab-2, work-3, field trips
Repeat: max. 6 units
Work on electronic media communications project acceptable to both the student and the instructor. Only a project having significant value in the field of broadcast electronic media arts will be approved. CSU

BCST 155-156-157 Selected Topics in BCST Electronic Media Arts (1-2-3)
Lec-1, 2, 3
Repeat: if no subject repeat
Selected topics in Broadcast Electronic Media Arts are explored through lectures, discussions, seminars, industry panels, media conferences, satellite downlinks, teleconferences, workshops, film, video, and/or television leading to a critical analysis and understanding of the topic under examination. CSU

BCST 160A-160B-160C. College Internship (2-2-2)
Lec/conf-1.5, work-8
Coreq.: Enrollment in minimum of 7 units of course work (including this course) and consent of instructor
On-campus college internship in an approved media related installation within the college such as Broadcast Media Services, Educational Access Television, KCST Radio, and the Public Information Office. Resum writing, communication skills, and job interview techniques. CSU

BCST 165A-165B. Industry Internship (2-2)
Lec/conf-1.5, work-8
Coreq.: Enrollment in minimum of 7 units of course work (including this course) and consent of instructor
Repeat: max. 6 units
Observation and supervised off-campus experience in an approved broadcast electronic media industry installation such as a television station, a video production firm, a radio station, a music recording studio or business, a corporate media production department, or a multimedia production team. Resum writing, communication skills, and job interview techniques. CSU

LABR 96F. Labor Relations in Broadcasting (3)
See Labor Studies listings for course description.

Business

Announcement of Curricula

General Information

For students who desire business training leading directly to their employment, City College of San Francisco offers two-year credit courses of study in ten fields: accounting, business office information processing, finance, paralegal/legal studies, merchandising, real estate, retail management, supervisory practices, travel and tourism, and word processing.

Admission. Enrollment in the Business Program is open to all interested students. In some curricula, however, students must satisfy prerequisites before being admitted to certain courses.

Instruction in Business and General Education. Training is designed to help students acquire a high degree of technical skill, familiarize themselves with business principles and procedures, and develop the sense of responsibility essential to success. Each curriculum in the Credit Business Programs includes instruction in both a major field and related subjects such as business correspondence, speech, and business mathematics. Instruction in general education is included so that students may satisfy the College graduation requirements in this area.

Work Experience Training. Students enrolled in the Credit Business Programs may obtain credit for experience in their major fields by enrolling in work experience courses. Students are supervised by both employers and instructors.

Students may offer toward graduation a maximum of six semester units of credit earned in off- or on-campus work-experience courses or in any combination of both.

Associate in Science Degree and Award of Achievement. The Business Program is designed so that students may satisfy the requirements for graduation from the College. Upon successful completion of the curriculum, students receive the Associate in Science degree. Students who satisfy these requirements and complete any of the curricula with an average final grade of C plus (2.50 grade-point average) or higher receive the Award of Achievement.
Transfer Information. Students in the Business Program who intend to transfer to other colleges or universities should consult their academic advisers and their counselors and should consult the section of this catalog entitled, "Transfer Information."

Noncredit Certificate Programs. These programs provide directed training for employment in the modern office. Computer skills, communication skills, and job preparation courses are emphasized in the noncredit sequences to prepare students for entry-level, clerical employment.

Accounting

Degree Curriculum

Students who satisfactorily complete the Curriculum in Accounting, a two-year course of study, are qualified for employment as junior accountants in private, public, and civil-service accounting and as junior auditors in private and civil-service accounting. Positions to which graduates have advanced after gaining experience and undertaking further study include those of accounting supervisor, senior accountant, and senior auditor.

The course of study includes instruction in principles of accounting, intermediate accounting, auditing, cost accounting, microcomputer accounting, and income-tax procedure.

Students who complete each of the following courses with a final grade of C or higher receive the Award of Achievement in Accounting.

Courses Required for the Award of Achievement in Accounting

First Semester
Course Units
ACCT 1 Fin Acct .......................................... 4
MABS 60 Microcomp Appt-Bus .......................... 3
BSMA 66 or 68 Bus Math or Math of Bus .......... 4 or 3
Additional graduation requirements

Second Semester
ACCT 2 Managerial Acct ................................ 4
BSEN 74 Bus Corresp .................................. 3
ACCT 59 Income Tax Proc ............................. 3
MABS 101 Spreadsheets for Bus/Excel ............... 3
Additional graduation requirements

Third Semester
CLW 18 Commercial Law ............................. 3
ACCT 51 (fall only) Intermed. Accounting ............ 4
ACCT 55 (fall only) Cost Accounting .................. 3
ACCT 53 Accounting on MicroComp .................. 3
ACCT 59B Calif Income Tax ........................... 1
Additional graduation requirements

Fourth Semester
CLW 19 Commercial Law ............................. 3
ACCT 52 (spring only) Inter Accounting ............... 4
ACCT 54 (spring only) Auditing ....................... 3
LERN 41 Successful Job Search Techniques .......... 1
Additional graduation requirements

Recommended electives, BSEN 76, SMBS 135

Microcomputer Accounting

Credit Certificate Curriculum

The program is designed to prepare students to enter the job market in positions that use the microcomputer for Accounts Receivable, Accounts Payable, Payroll, General Ledger, and other accounting functions.

Admission. Enrollment is open to all interested students.

Credit Toward Graduation. All credit that students earn in obtaining the Certificate of Completion in Microcomputer Accounting may also be applied toward satisfaction of the requirements for graduation from the College.

Requirements for the Certificate of Completion in Microcomputer Accounting

Students may obtain the Certificate of Completion in Microcomputer Accounting by completing each of the following courses with a final grade of C or higher:

Course Units
ACCT 50 Intro to Acct ................................. 4
ACCT 1† Fin Acct ......................................... 4
ACCT 53 Acct on Microcomp ......................... 3
MABS 60 Microcomp Appt-Bus ........................ 3
MABS 101 Spreadsheets for Bus/Excel ............... 3
BSMA 66 or 68 Bus Math or Math of Bus .......... 4 or 3
WDPR 78** Keyboarding .............................. 1
LERN 41 Successful Job Search Techniques ........ 1

†Students must earn a grade of C or higher in ACCT 50 or ACCT 1.
**Students may satisfy the requirements for WDPR 78 by passing an examination in typing.

Finance: (Banking, Insurance, and Investments)

Degree Curriculum

The two-year program leading to the Associate in Science degree and the Award of Achievement is primarily designed for those planning to enter this industry in entry-level or operational positions and those in the industry seeking advancement. The program is also meant for those students wishing to gain knowledge about this field before transferring to a four-year college or university.

Students who complete the curriculum with an average final grade of C plus (2.50 grade-point average) or higher receive the Award of Achievement in Finance.
Courses Required for the Award of Achievement in Finance

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 110 Prin of Insurance I: Gen Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 130 Prin of Bank Operations</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 66 or 68 Bus Math or Math of Bus or MATH 75 or 90 Math Anal for Bus</td>
<td>3-5</td>
</tr>
<tr>
<td>GNBS 119 Intro to Bus</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A, 94 or 96, or ESL 82 Reading and Comp or BSEN 70 Gram and Comp*</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Additional graduation requirements

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 133 Money &amp; Banking</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 50 or ACCT 1 Intro to Acct or Fin Acct</td>
<td>4</td>
</tr>
<tr>
<td>ECON 1 Prin of Economics*</td>
<td>3</td>
</tr>
<tr>
<td>WDPR 391A Beg Word Proc - Word for Win</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Additional graduation requirements

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 136 Intro to Fin Planning</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
<tr>
<td>Two or more electives from those listed below†</td>
<td>6</td>
</tr>
</tbody>
</table>

Additional graduation requirements

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 138 Prin of Investment</td>
<td>3</td>
</tr>
<tr>
<td>MABS 67 or CIS 101 Database for Bus/Access for Win or Intro to Comm Data Proc</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 122 or 140 Salesmanship or Marketing</td>
<td>3</td>
</tr>
<tr>
<td>One elective from those listed below</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional graduation requirements

* Required program courses that fulfill General Education Requirements
† Students wishing to transfer to a four-year university may substitute those courses meeting that requirement from the required electives.

Electives: BSEN 74, SMBS 135, RE 181, RE 186, WKEX 197, SUPV 231, ACCT 2, CLW 18, ECON 3, INTR 170

Certificate of Completion Curriculum

The Certificate of Completion curriculum is designed for students who desire recognition for completing a rigorous course of study in financial services skills but who may not be interested in pursuing a degree. Students completing the curriculum with an average final grade point of C+ or higher (2.5 GPA) will receive the Certificate of Completion in Finance. Below is the recommended sequence of required courses.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 110 Prin of Insurance I: Gen Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 130 Prin of Bank Operations</td>
<td>3</td>
</tr>
<tr>
<td>FIN 136 Intro to Fin Planning</td>
<td>3</td>
</tr>
<tr>
<td>GNBS 119 Intro to Bus</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets of for Bus/Excel</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1 Prin of Economics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 133 Money &amp; Banking</td>
<td>3</td>
</tr>
<tr>
<td>FIN 138 Prin of Investments</td>
<td>3</td>
</tr>
<tr>
<td>MABS 67 or CIS 101 Database for Bus/Access for Win or Intro to Comm Data Proc</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 122 or 140 Salesmanship or Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Credit Toward Graduation. Credit earned in obtaining the Certificate of Completion may be applied toward CCSF graduation requirements.

International Business

Credit Certificate Curriculum

The Certificate Program in International Business fulfills the needs of three groups: students preparing themselves for careers in international business, currently employed individuals whose job responsibilities require expertise in international business practices, and entrepreneurs who want to begin or globalize their business ventures.

Requirements for the Certificate of Completion in International Business

Students may obtain the Certificate of Completion in International Business by completing the following courses with an average final grade of C or higher:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 162 Survey of International Bus</td>
<td>3</td>
</tr>
<tr>
<td>INTR 163 International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>INTR 164A Export Practices</td>
<td>1.5</td>
</tr>
<tr>
<td>INTR 165A Import Practices</td>
<td>1.5</td>
</tr>
<tr>
<td>INTR 167 International Law</td>
<td>3</td>
</tr>
<tr>
<td>INTR 168 or 169 Field Work</td>
<td>1 or 2</td>
</tr>
<tr>
<td>INTR 170 International Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Credit Toward Graduation. All credit that students earn in International Business may also be applied toward satisfaction of the requirements for graduation from the college.

Marketing

Degree Curriculum

The Degree Curriculum in Marketing, a two-year course of study, offers students interested in careers in advertising, professional sales, marketing research, business management, business promotion, and other marketing jobs specialized training for career advancement and employment. The Marketing curriculum combines classroom instruction, practical experiences, coordinated part-time employment, and internships. Students who complete the curriculum with an average final grade of C-plus (2.50 grade point average) or higher receive the Award of Achievement in Marketing.

Courses required for the Degree Curriculum and Award of Achievement

ACCT 1 or 50; BSMA 66 or 68; INTR 163; MRKT 122, 140, 145, 148, & 170; SMBS 135. Additionally, to receive an Associate of Science Degree, students must satisfy the College graduation requirements.
Recommended course sequence:

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 140 Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 145 Microcomputer Mkting Appl</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 66 or 68 Bus Math or Math of Bus</td>
<td>4 or 3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 122 Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 1 or 50 Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 148 Mkting Mgmt &amp; Supervision</td>
<td>3</td>
</tr>
<tr>
<td>SMBS 135 Small Business</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 170 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>INTR 163 Internatl Mkting</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Credit Certificate Curriculum**

Students may receive a Certificate of Completion in Marketing by completing the following courses with a final grade of C-plus (2.50 grade point average) or higher: ACCT 1 or 50; BSMA 66 or 68; INTR 163; MRKT 122, 140, 145, 148, 170; SMBS 135.

**Recommended electives:** BSEN 70, 74; CIS 101; PSYC 1, 26; SPCH 11, 12; WKEF 197

**Degree Curriculum**

The College offers two years of training in principles of business and in specific skills for students who plan careers in business office information processing, spreadsheet applications, and data base management. The course of study is designed so that students may satisfy the requirements of graduation from the College. Students who complete this curriculum satisfactorily are qualified for positions in private industry and civil service as word processors, secretaries, administrative assistants, receptionists, and general office workers.

Students who complete the curriculum and have an overall grade point average of C plus (2.50) or higher for all CCSF credit courses receive the Award of Achievement in Business Office Information Processing.

**Courses Required for the Award of Achievement in Business Office Information Processing**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 72 Inter ESL Composition</td>
<td></td>
</tr>
<tr>
<td>or ESL 150 Adv Academic ESL</td>
<td></td>
</tr>
<tr>
<td>or ENGL 90 or 92 Basic Comp &amp; Read I or II</td>
<td>3</td>
</tr>
<tr>
<td>WDPR 80 Word Proc Doc Prod</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Microcomputer Appl for Bus</td>
<td></td>
</tr>
<tr>
<td>or MABS 61 Adv Microsoft Office</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 82 Adv ESL Comp</td>
<td></td>
</tr>
<tr>
<td>or ENGL 94 or 96 Inter or Adv Inter Read &amp; Comp</td>
<td></td>
</tr>
<tr>
<td>BSEN 70 Fund of Engl Gram and Comp</td>
<td>4</td>
</tr>
<tr>
<td>WDPR 391 Complete Word Proc</td>
<td>3</td>
</tr>
<tr>
<td>or both</td>
<td></td>
</tr>
<tr>
<td>WDPR 391A Beg Word Proc</td>
<td>1.5</td>
</tr>
<tr>
<td>and WDPR 391B Adv Word Proc</td>
<td>1.5</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSMA 66 or 68 Bus Math or Math of Bus</td>
<td>4 or 3</td>
</tr>
<tr>
<td>BSEN 74 Bus Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
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</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSEN 76 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>MABS 67 Database for Business</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 26 Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Credit Certificate Curriculum**

The program of study for the Certificate of Completion in Business Office Information Processing is designed to meet the needs of two groups:

1. Those who desire to prepare for entry-level employment in business office information processing and
2. Those who desire to improve their competence in office work through instruction in any of the following: business English and communications, typing, word processing, and computer applications.

**Admission.** Enrollment is open to all interested students. However, students are required to satisfy prerequisites before being admitted to certain courses.

**Requirements for the Certificate of Completion in Business Office Information Processing**

Students may obtain the Certificate of Completion in Business Office Information Processing by earning an overall grade point average of C plus (2.50) or higher for the following courses:

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSEN 70 Fund of Engl Gram and Comp</td>
<td>4</td>
</tr>
<tr>
<td>WDPR 80 Word Proc Doc Prod</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Microcomputer Appl for Bus</td>
<td>3</td>
</tr>
<tr>
<td>or MABS 61 Adv Microsoft Office</td>
<td></td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSEN 74 Bus Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>WDPR 391 Complete Word Proc</td>
<td>3</td>
</tr>
<tr>
<td>or both</td>
<td></td>
</tr>
<tr>
<td>WDPR 391A Beg Word Proc</td>
<td>1.5</td>
</tr>
<tr>
<td>and WDPR 391B Adv Word Proc</td>
<td>1.5</td>
</tr>
<tr>
<td>MABS 67 Database for Business</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 26 Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>
Credit Toward Graduation. All credit that students earn in obtaining the Certificate of Completion in Business Office Information Processing may also be applied toward the requirements for graduation from the College.

Paralegal/Legal Studies

Degree Curriculum

Today’s busy law offices need paralegals qualified to do certain work now being done by lawyers, but which, under law, lawyers are not required to do. These paralegals work on a level between that of the lawyer and that of the clerical staff. The work of the paralegal (legal assistant) has been recognized by the American Bar Association, the State Bar of California, and the Bar Association of San Francisco as an important step in helping the legal profession meet the increasing demand for its services and in providing these more efficiently and promptly.

Associate in Arts Degree and Award of Achievement.

City College trains students in a two-year course of study in Paralegal/Legal Studies. The course of study is designed so that students may satisfy the requirements for graduation from the College. Students who satisfy these requirements and complete the required courses with the average final grade of C (2.00 grade-point average) or higher receive the degree of Associate in Arts, the Certificate of Completion, and the Award of Achievement in Paralegal/Legal Studies.

Admission. Enrollment is open to all interested students.

Course of Study. The course of study includes instruction in the following: introduction to legal assisting; civil litigation; commercial law; tort law and claims investigation; wills, trusts, and probate administration; family law; civil and criminal evidence; legal research; law office management and procedures; investigation, discovery, and trial preparation; introduction to legal writing; legal aspects of real estate; environmental law; legal aspects of employee benefits and executive compensation; labor law; medical law; debtors’ rights and creditors’ remedies; corporate and business law; intellectual property law; immigration law; and microcomputers for business.

Employment. Those who complete the curriculum satisfactorily are qualified for employment as paralegals in law offices, government offices, and other businesses.

Courses Required for the Award of Achievement in Paralegal/Legal Studies

First Semester

Course | Units
--- | ---
LA 51 Intro to Legal Assisting | 3
LA 52 Intro to Legal Writing | 3
CLW 18 Commercial Law | 3
Additional graduation requirements

Second Semester

Course | Units
--- | ---
LA 71 Civil Litigation | 3
CLW 19 Commercial Law | 3
LA 75 Legal Research & Writing | 3
PSYC 26 Human Relations | 3
Additional graduation requirements

Third Semester

Course | Units
--- | ---
LA 55 Tort Law & Claims Investigation | 3
LA 60 Wills, Trusts, and Probate Admin | 3
LA 80 Law Office Management and Procedures | 3
Additional graduation requirements

Fourth Semester

Course | Units
--- | ---
LA 65 Family Law | 3
LA 70 Civil and Criminal Evidence | 3
LA 72 Investig, Disc, & Trial Prep | 3
Additional graduation requirements

In addition, students must achieve a satisfactory score on the City College English placement examination or must complete BSEN 70 with a final grade of C or higher.

Recommended electives: ACCT 1; ADMJ 52; BSEN 70, 76; HUM 11, 12, 54, 61, 62, 63, 64, 66, 67, 68, 81, 92, 97, 98, 99; LIBR 57, 58A; MABS 60; WDPR 78, 79, 391A-B

Credit Certificate Curriculum

The program of study for the Certificate of Completion in Paralegal/Legal Studies is designed to prepare students for employment as paralegals.

Admission. Enrollment is open to all interested students who have completed 30 units of general education or law-related courses with a 2.00 grade point average or higher at an accredited post-secondary school OR who will complete the 30 units concurrently with this program. The student will be required to furnish a transcript of records for courses completed at another school.

Requirements for the Certificate of Completion in Paralegal/Legal Studies

Each course must be completed with a letter grade of C or higher. The following is the sequence for required courses:

First Semester

Course | Units
--- | ---
LA 51 Intro to Legal Assisting | 3
LA 52 Intro to Legal Writing | 3
CLW 18 Commercial Law | 3

Second Semester

Course | Units
--- | ---
LA 71 Civil Litigation | 3
CLW 19 Commercial Law | 3
LA 75 Legal Research and Writing | 3

Third Semester

Course | Units
--- | ---
LA 80 Law Office Management and Procedures | 3
Program Elective | 3

Fourth Semester

Course | Units
--- | ---
LA 72 Investigation, Discovery, and Trial Prep | 3
Program Elective | 3

Please note that a minimum of two electives from the Paralegal/Legal Studies Program must also be completed.
Office Technology

Noncredit Programs
Office Technology refers to courses and certificate programs which provide training for the modern office. This comprehensive title includes such courses and subject areas as accounting, business, English and communication, job preparation, keyboarding, shorthand, and word processing. Please consult a counselor regarding these noncredit certificate programs.

Administrative Assistant

Program Goal. Prepare students for entry and mid-level administrative support and related positions requiring intermediate to advanced computer skills including word processing, spreadsheets, graphics, and database.

Advisory Entrance Requirements:
Typing: 25 net wpm

Course   Hours
SECY 9348 Bus English .......... 90
SECY 9346 Effective Bus Comm .... 90
SECY 9374 Keyboarding - All Levels* ........ 90-180
or SECY 9377 Keyboarding Lab........
SECY 9399 Office Technology
or SECY 9375 Clerical Keyboarding .... 180
SECY 9400 Job Preparation ........ 45
COMP 9905 Computer Apps - Intro
or COMP 9889 Intro to Computers/
Windows In-Depth ................ 45-90
COMP 9900 Spreadsheets - Beginning .... 45
WOPR 9486 Word Processing - Beginning .... 45
WOPR 9995 Word Processing - Intermediate .... 45
WOPR 9996 Word Processing - Advanced .... 45
COMP 9899 Desktop Publishing - Beginning .... 45
COMP 9902 Graphics for Bus (PowerPoint) .... 45
COMP 9901 Databases - Beginning .... 45

Plus TWO elective courses from the following:
COMP 9907 Desktop Publishing - Intermediate .... 45
COMP 9904 Spreadsheets - Intermediate .... 45
COMP 9909 Spreadsheets - Advanced .... 45
COMP 9910 Databases - Intermediate .... 45
COMP 9908 Current Topics/Internet .... 45
COMP 9908 Current Topics/Outlook .... 45
COMP 9917 Building Individual Web Sites  
or COMP 9918 Building Bus Web Sites .... 45
COMP 9902 Graph for Bus (Adobe Photoshop) .... 45
WOPR 9997 Word Processing - Special Topics .... 45

* Two extra elective courses may be substituted for the keyboarding course with successful completion of a 5-minute timed test with 50+ wpm and an accuracy rate of 90+%.

Exit Requirements. Successful completion of all courses with a grade of B or higher. (Students may not repeat a class more than once.)
Typing: 50 net wpm with no more than 10% error rate Completion of courses within three years.

Offered by:
Downtown ................................ 267-6500
John Adams Campus .................. 561-1925
Mission Campus (not all courses avail.) ...... 550-4384
Southeast Campus (not all courses avail.) ...... 550-4300


Note: Not all courses required for this certificate program are offered at every campus. It may be necessary to attend more than one campus in order to complete the program.

Clerical Assistant

Program Goal. Prepare students for entry and mid-level clerical support positions requiring word processing, spreadsheets, and/or other computer applications.

Course  Hours
SECY 9374 Keyboarding - All Levels* 90-180
or SECY 9377 Keyboarding Lab ........
SECY 9399 Office Technology
or SECY 9375 Clerical Keyboarding .... 180
SECY 9348 Business English ........ 90
SECY 9346 Effective Business Communication .... 90
COMP 9905 Computer Apps - Intro
or COMP 9889 Intro to Computers/
Windows In-Depth ........ 45-90
WOPR 9486 Word Processing - Beginning .... 45
WOPR 9995 Word Processing - Intermediate .... 45
COMP 9900 Spreadsheets - Beginning .... 45
SECY 9400 Job Preparation .... 45

Plus FOUR elective courses from the following:
WOPR 9996 Word Processing Advanced .... 45
COMP 9902 Graphics for Bus (PowerPoint) .... 45
COMP 9907 Desktop Publishing-Beginning .... 45
COMP 9907 Desktop Publishing-Intermediate .... 45
COMP 9904 Spreadsheets-Intermediate .... 45
COMP 9909 Spreadsheets-Advanced .... 45
COMP 9901 Databases-Beginning .... 45
COMP 9910 Databases-Beginning .... 45
COMP 9908 Current Topics/Internet .... 45
COMP 9908 Current Topics/Outlook .... 45
COMP 9917 Building Individual Web Sites  
or COMP 9918 Building Bus Web Sites .... 45
COMP 9902 Graph for Bus (Adobe Photoshop) .... 45

* Two extra elective courses may be substituted for the keyboarding course with successful completion of a 5-minute timed test with 45+ wpm and an accuracy rate of 90+%.

Exit Requirements. Successful completion of all courses with a grade of B or higher. (Students may not repeat a class more than one time.)
Typing: 45 net wpm with no more than 10% error rate Completion of courses within three years.

Offered by:
John Adams Campus .................. 561-1925
Mission Campus (not all courses avail.) ...... 550-4384
Southeast Campus (not all courses avail.) ...... 550-4300
Financial Assistance. The Office Assistant Certificate Program is eligible for financial assistance. Please consult a counselor for further information.

Note: Not all courses required for this certificate program are offered at every campus. It may be necessary to attend more than one campus in order to complete the program.

Computerized Accounting

Program Goal. Prepare students for entry-level jobs in the accounting and related fields. This program provides both manual and computerized instruction in maintaining records and in preparing appropriate reports and analyses. Students will also learn spreadsheet programs to assist in preparation of coordinating computer spreadsheets.

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECY 9348 Business English</td>
<td>90</td>
</tr>
<tr>
<td>SECY 9346 Effective Business Communication</td>
<td>90</td>
</tr>
<tr>
<td>SECY 9374 Keyboarding - All Levels - (ten-key module must be completed).</td>
<td>180</td>
</tr>
<tr>
<td>or SECY 9377 Keyboarding Lab - (ten-key module must be completed)</td>
<td>90</td>
</tr>
<tr>
<td>or SECY 9399 Office Tech (ten-key module must be completed)</td>
<td>180</td>
</tr>
<tr>
<td>ACBO 9200 Accounting</td>
<td>90</td>
</tr>
<tr>
<td>or ACBO 9203 Bookkeeping and Acct (Proprietorship/Partnership)</td>
<td>180</td>
</tr>
<tr>
<td>ACBO 9204 Accounting - (Corporate)</td>
<td>90</td>
</tr>
<tr>
<td>ACBO 9205 Computerized Acct</td>
<td>90</td>
</tr>
<tr>
<td>COMP 9905 Computer Apps Intro</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9900 Spreadsheets - Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Spreadsheets - Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9909 Spreadsheets - Advanced</td>
<td>45</td>
</tr>
<tr>
<td>SECY 9400 Job Preparation</td>
<td>45</td>
</tr>
</tbody>
</table>

Exit Requirements. Successful completion of all courses with a grade of B or higher. (Students may not repeat a class more than one time.) Completion of courses within three years.

Offered by:
John Adams Campus .................................... 561-1925
Mission Campus (not all courses avail.) ....... 550-4384
Chinatown Campus (not all courses avail.) .... 561-1850


Note: Not all courses required for this certificate program are offered at every campus. It may be necessary to attend more than one campus in order to complete the program.

Construction Administrative Assistant

Program Goal. The Construction Administrative Assistant Program prepares students for a key position in the construction industry. Students study the basic procedures of this industry, terminology, filing systems, jobsite office operation, message handling, contractor communications, work order prioritization, project control reporting and project database information entry, retrieval and maintenance. The program can be completed in two semesters.

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECY 9399 Office Technology Laboratory</td>
<td>90</td>
</tr>
<tr>
<td>COMP 9900 Spreadsheets - Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9901 Databases - Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9889 Computer - Overview/Apps</td>
<td>90</td>
</tr>
<tr>
<td>WOPR 9990 Word Processing (Multi-Level)</td>
<td>90</td>
</tr>
</tbody>
</table>

Microcomputer Business Applications

Program Goal. Prepare students for all levels of administrative positions including support. Students will learn various business software programs in addition to extensive word processing and general office support skills.

Advisory Admission Requirements:
Typing: 25 net wpm

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9905 Computer Apps Intro</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9889 Comp - Overview/Apps</td>
<td>90</td>
</tr>
<tr>
<td>SECY 9377 Keyboarding Lab</td>
<td>90</td>
</tr>
<tr>
<td>or SECY 9374 Keyboarding - All Levels</td>
<td>180</td>
</tr>
<tr>
<td>SECY 9348 Bus English</td>
<td>90</td>
</tr>
<tr>
<td>SECY 9346 Effective Bus Comm</td>
<td>90</td>
</tr>
<tr>
<td>SECY 9400 Job Preparation</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9901 Databases - Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9900 Spreadsheets - Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Spreadsheets - Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9486 Word Processing - Beginning</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9995 Word Processing - Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9896 Micros - Individual Projects</td>
<td>45</td>
</tr>
<tr>
<td>Plus THREE courses from the following:</td>
<td></td>
</tr>
<tr>
<td>COMP 9899 Desktop Publishing - Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9907 Desktop Publishing - Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9914 Desktop Publishing - Advanced</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9910 Databases - Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9902 Graphics for Business</td>
<td>45</td>
</tr>
<tr>
<td>Plus ONE course from the following:</td>
<td></td>
</tr>
<tr>
<td>COMP 9909 Spreadsheets - Advanced</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9996 Word Processing - Advanced</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9911 Databases - Advanced</td>
<td>45</td>
</tr>
</tbody>
</table>

Exit Requirements. Successful completion of all courses with a grade of B or higher. (Students may not repeat a class more than one time.) Completion of courses within three years.

Offered by:
John Adams Campus .................................... 561-1925
Mission Campus (not all courses avail.) ...... 550-4384
Downtown Campus .................................... 267-6500

Note: Not all courses required for this certificate program are offered at every campus. It may be necessary to attend more than one campus in order to complete the program.
Real Estate

Degree Curriculum

The curriculum in Real Estate, a two-year course of study, is designed to give students a sound foundation in theory and practice so that they may hold a salaried position while they prepare for specialized realty work, and to help them obtain the California real estate salesperson’s license. The curriculum is sponsored by the Department of Real Estate of the State of California, the California Association of Realtors, and the San Francisco Board of Realtors.

Entry positions open to graduates who pass the California State examination for a salesperson’s or broker’s license include those of sales agent, junior appraiser, rental agent, or property manager for a bank or land-development company; or in the property department of a corporation, a savings-and-loan company, or an insurance company. Graduates may also search titles and close transactions in the escrow departments of any of these establishments or for escrow companies.

Students interested in obtaining a real estate salesperson’s or a broker’s license may obtain information by telephoning the San Francisco office of the State of California Department of Real Estate at 557-2136.

The course of study includes instruction in the following: principles of real estate, real estate practice, real estate economics and investments, legal aspects of real estate, principles of real estate appraisal, and principles of real estate finance.

Students who complete the Curriculum in Real Estate with an average final grade of C plus (2.50 grade-point average) or higher receive the degree of Associate in Science and the California Real Estate Certificate.

Courses Required for the Associate in Science Degree and the California Real Estate Certificate

Students must satisfy the City College graduation requirements and must complete the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 181 Princ of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 184 Real Estate Pract</td>
<td>3</td>
</tr>
<tr>
<td>RE 185 Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 186 Prin of Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RE 189 Real Estate Econ</td>
<td>3</td>
</tr>
<tr>
<td>RE 191 Prin of Real Estate Appraisal</td>
<td>3</td>
</tr>
</tbody>
</table>

Credit Certificate Curriculum

The California Real Estate Certificate is currently awarded by 90 community colleges in California. City College of San Francisco participates in this Statewide program and awards the California Real Estate Certificate to any day or evening student who completes a prescribed program of 24-semester units.

A student may complete only those courses required for the California Real Estate Certificate, since this is awarded independently of the Associate in Science degree. However, students who complete the full course of study leading to that degree will automatically have completed the requirements for, and will be awarded, the California Real Estate Certificate.

Training for the Certificate is designed so that those seeking entry employment may prepare themselves to take the State licensing examination for real estate salespersons, and so that those already employed in various branches of real estate work may gain further knowledge and develop additional competence.

Courses Required for the California Real Estate Certificate

Students may obtain the California Real Estate Certificate by completing the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 181 Princ of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 184 Real Estate Pract</td>
<td>3</td>
</tr>
<tr>
<td>RE 185 Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 186 Prin of Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RE 189 Real Estate Econ</td>
<td>3</td>
</tr>
<tr>
<td>RE 191 Prin of Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>Electives: real estate or other bus courses</td>
<td>6</td>
</tr>
</tbody>
</table>

The six semester units in the elective courses indicated above must be completed in real estate or other acceptable business courses.

If the candidate for the California Real Estate Certificate holds a valid California real estate salesperson’s or broker’s license, a three-unit course in real estate or another area of business may be substituted in lieu of RE 181.

Retail Management

Credit Certificate Curriculum

The program of study for the Certificate of Completion in Retail Management is designed to prepare students for employment as retail managers.

Admission. Enrollment is open to all interested students. However, students may be required to satisfy prerequisites before being admitted to certain courses.

Requirements for the Certificate of Completion in Retail Management

Students may obtain the Certificate of Completion in Retail Management by completing the required 10 courses totaling 31/32 units. Each course must be completed with a grade of C or higher or Credit.

Courses for the Certificate Curriculum

Foundational Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSEN 74 Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 66 Business Math</td>
<td></td>
</tr>
<tr>
<td>or BSMA 68 Mathematics of Business</td>
<td></td>
</tr>
<tr>
<td>MABS 60 Microcomputer Applications for Bus</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 234 Communication for Bus Mgmt</td>
<td>3</td>
</tr>
</tbody>
</table>

Intermediate Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPV 231 Intro to Supervision/Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 1 Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>or ACCT 50 Intro to Accounting</td>
<td>4</td>
</tr>
<tr>
<td>MRKT 140 Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>
Advanced Courses
SUPV 232 Org Behavior for Supervisors .................. 3
SUPV 233 Human Resources Management .................. 3
FASH 44 Merchandising–Retail Buying .................. 3

Small Business

Noncredit Programs

Program Goal. Prepares students for a successful start in their own small business and helps small business owners increase the effectiveness and operation of their business in 5 areas: 1) Starting Out, 2) Management, 3) Finance, 4) Marketing, and 5) Export/Import and International Business.

Starting Out
Core Course Hours/Weeks
SMBU 9467 Getting Started .................. 6
SMBU 9775 Bus Plan .................. 6
SMBU 9777 Buying a Business Profitably .................. 6

ELECTIVES:
SMBU 9561 Business Licenses and Permits .................. 6
SMBU 9781 Legal Structures for Business .................. 3
SMBU 9772 Finding the Right Location .................. 3
SMBU 9430 Introduction to Franchising .................. 3
SMBU 9482 Home-Based Business .................. 3
SMBU 9439 Selling a Business .................. 3

Management
Core Course Hours/Weeks
SMBU 9447 Bus Law for Small Bus .................. 3
SMBU 9452 Supervising Employees .................. 3
SMBU 9449 Staffing Your Bus .................. 3
SMBU 9453 Bus Comm .................. 3
SMBU 9461 Retail Management .................. 3

ELECTIVES:
SMBU 9465 Small Business Insurance .................. 3
SMBU 9448 Purchasing Products & Services .................. 3
SMBU 9469 Controlling Your Inventory .................. 3
SMBU 9468 Employee Training .................. 3
SMBU 9466 Employer/Employee Rights .................. 3

Finance
Core Course Hours/Weeks
SMBU 9412 Profit from Using Fin States .................. 3
SMBU 9437 Keeping Score On Your Finances .................. 3
SMBU 9783 Getting the Right Loan .................. 3

ELECTIVES:
SMBU 9784 Finance for Small Business .................. 3
SMBU 9776 Record Keeping .................. 3
SMBU 9418 Small Business and Taxes .................. 3
SMBU 9785 Contract Administration .................. 3

Marketing
Core Course Hours/Weeks
SMBU 9462 Marketing Analysis .................. 3
SMBU 9470 Marketing Strategy .................. 3
SMBU 9471 Pricing Prod and Serv .................. 3
SMBU 9450 Effective Advertising .................. 3

ELECTIVES:
SMBU 9463 Telephone as a Sales Tool .................. 3
SMBU 9774 Selling and Sales Management .................. 3
SMBU 9454 Getting Government Business .................. 3

Export/Import and International Business
Core Course Hours/Weeks
SMBU 9457 Export Marketing .................. 3
SMBU 9460 Export/Import Documents .................. 3
SMBU 9458 Export-Financing .................. 3
SMBU 9459 Export/Import Basics .................. 3
SMBU 9456 Export Shipping and Insurance .................. 3

ELECTIVES:
SMBU 9773 U.S. Competitiveness .................. 3
SMBU 9455 Trade With Asia .................. 3
SMBU 9788 Trade With Europe .................. 3
SMBU 9786 Trade With the Americas .................. 3
SMBU 9787 Trade With Africa .................. 3

Exit Requirements. Completion of the core courses and one three- unit elective course.

Offered by: Small Business Institute, 267-6577

Supervision and Business Management

Credit Certificate Curriculum

Enrollment in supervision courses is for those who desire to advance to supervisory positions and also for others who are currently employed as supervisors and desire to upgrade their supervisory skills.

Requirement for the Certificate of Completion in Supervision

Students may obtain the Certificate of Completion in Supervision by completing the following courses with an average final grade of C (2.00 grade-point average) or higher:

Course Units
SUPV 231 Intro to Super/Management .................. 3
SUPV 232 Organizational Behavior & Dev .................. 3
SUPV 233 Human Resource Mgmt .................. 3
SUPV 234 Communication for Bus Mgmt .................. 3

Credit Toward Graduation. All credits that students earn in obtaining the Certificate of Completion in Supervision may be applied toward satisfaction of the requirement for graduation from the college.
**Supervision and Business Management**

**Noncredit Certificate Program**

**Program Goal.** Courses in the Certificate Program are designed for persons preparing for positions in business or government, and for experienced persons upgrading their supervisory and business management skills. The curriculum consists of basic core subjects plus elective courses. Class contact time is 18 hours per course. Topics stressed include leadership skills, communication, motivation, personnel and human relations; computing, problem-solving, and decision-making; planning, organizing, staffing, directing, and controlling operations.

The Community College Certificate is awarded upon completion of 4 core areas and 4 elective courses listed below:

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supervision and Management</strong></td>
<td></td>
</tr>
<tr>
<td>SUMA 9412 The Supervisor in Management</td>
<td>18</td>
</tr>
<tr>
<td>SUMA 9416 Organizational Leadership</td>
<td>18</td>
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<tr>
<td>SUMA 9479 Management Practices</td>
<td>18</td>
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<tr>
<td><strong>Personnel Responsibilities of Supervisors</strong></td>
<td></td>
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<tr>
<td>SUMA 9413 Personnel Management</td>
<td>18</td>
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<tr>
<td>SUMA 9417 Affirm Action &amp; Opportunity</td>
<td>18</td>
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<tr>
<td>SUMA 9423 Developing &amp; Appraising Staff</td>
<td>18</td>
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<tr>
<td><strong>Human Relations and Organizational Behavior</strong></td>
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<tr>
<td>SUMA 9414 Human Relations</td>
<td>18</td>
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<tr>
<td>SUMA 9442 Assertiveness and Conflict</td>
<td>18</td>
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<tr>
<td>SUMA 9443 Interpersonal Communication</td>
<td>18</td>
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<tr>
<td><strong>Concepts of Government and Administration</strong></td>
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<tr>
<td>SUMA 9415 Business and Government</td>
<td>18</td>
</tr>
<tr>
<td>SUMA 9434 Budgeting and Control</td>
<td>18</td>
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<tr>
<td>Total</td>
<td>198</td>
</tr>
</tbody>
</table>

**Elective Courses (4 courses/72 Hours)**

COMP 9252, 9869, 9905; SUMA 9416, 9419, 9424, 9425, 9429, 9436, 9438, 9440, 9452, 9454, 9455, 9456, 9457, 9458, 9463, 9473, 9480.

**Exit Requirements.** Successful completion of 270 hours of classroom instruction in core and elective courses. Credit by petition is available.

**Admission Requirements.** High school diploma, GED, or high school proficiency certificate.

**College Credit Available.** Participants who complete the Community College Certificate Program in Supervision and Business Management will be eligible to receive up to 15 semester units of credit through City College of San Francisco, satisfying the requirements of the major field of study in supervision and management for the Associate Degree. This credit by petition is awarded upon completion of one course of three or more semester units offered for credit by City College.

**Offered by:** Supervision and Management Program (Downtown), 267-6577

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**Total Quality Management (TQM)**

See Engineering and Technology listings.

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**Travel and Tourism**

**Degree Curriculum**

The curriculum in Travel and Tourism offers two different Certificates of Completion, as well as a two-year course of study with special emphasis in either Marketing, Management, or Destination Development. The specific course of study that the student will follow is an integral part of the course content of the Principal of Travel and Tourism classes. Upon completion of TRTV 157 and TRTV 159, the student will know if they will pursue their Travel and Tourism Degree in marketing, management, or in destination development.

The Travel and Tourism program prepares students for jobs with the airlines as reservation agents, marketing representatives, customer service personnel to name just a few of the jobs, the same kinds of jobs with hotels, tour companies, cruise lines, consuls and tourist information offices and with travel agencies (corporate, leisure, special interest, group or meeting and planning agencies). Many of the students enrolled in this program are pursuing a second career, so careful evaluation of their current job skills help determine where they fit into this quickly changing and growing industry.

The curriculum in Travel and Tourism provides practical training in the specific vocabulary used in the industry, the reference books used in all sectors, how to read and design tour and cruise brochures, common business practices, airline computer operations and formats, airfare constructions, group sales pricing, special interest tour development. The Destination classes are designed to advise the student of all there is to know about travel in a specific region of the world. Students learn about visa requirements, how to get there, competitive airfares to the destination, which tour companies sell the destination, languages, religion, what to see, what to do. Completion of the two-year degree will give students a necessary foundation in computer skills, communication skills as in learning to qualify the client, written and spoken English, psychology, anthropology, marketing skills, management styles, and specific tourist destinations in the world.

**Courses Required for the Award of Achievement in Travel and Tourism**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ESL 72 Intermediate Composition and Reading</td>
<td>3</td>
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<tr>
<td>or ESL 150 Advanced Academic ESL</td>
<td></td>
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<tr>
<td>or ENGL 90 or 92 Bus Comp &amp; Reading</td>
<td>3</td>
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<tr>
<td>WDPR 78 Keyboarding</td>
<td>1</td>
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<tr>
<td>WDPR 79 Speedbuilding: Typing</td>
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<tr>
<td>GNBS 119 Intro to Bus</td>
<td>3</td>
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</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>ESL 82 Advanced Composition</td>
<td>3</td>
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<tr>
<td>or ENGL 94 or 96 Inter or Adv Inter</td>
<td></td>
</tr>
<tr>
<td>Read &amp; Comp</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 26 Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 MicroComp Appl for Bus</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 157 Prin of Travel and Tourism</td>
<td>3</td>
</tr>
</tbody>
</table>
Third Semester
BSMA 66 or 68 Bus Math or Math of Bus ............ 3 or 4
BSEN 70 Fund of Engl Gram and Comp ............ 4
TRTV 160 or 161 Field Work .......................... 1 or 2

Fourth Semester
SPCH 1A Elems of Public Speaking
or SPCH 11 Practical Public Speaking ............ 3
TRTV 159 Adv Prin of Travel and Tourism ....... 3

Recommended electives: WDPR 80, ACCT 50, MRKT 122,
SMBS 135, SUPV 221A, SPCH 12, CIS 164

Students who complete the curriculum with an average final grade
of C or higher will receive the award of Achievement in Travel and
Tourism.

Certificate Program

The Certificate of Completion in Travel and Tourism (17 units)
fulfills the needs of two groups: those who desire to prepare for em-
ployment with travel agencies and related services and those cur-
cently employed professionals who wish to improve their on-the-
job skills in this industry.

Course Units
TRTV 157 Prin of Travel and Tourism .......... 3 TRTV 159 Adv
Prin Travel and Tourism ........................... 3
TRTV 162 Destination: Europe
or TRTV 164 Destination: So Pacific
or TRTV 165 Destination: USA & Canada
or TRTV 166 Destination: Asia
or TRTV 168 Destination: Africa & Mid East
or TRTV 170 Destin: Cent/So Amer & Mexico ...... 3
MABS 60 Microcomp Appl for Bus ............... 3
English requirement* .................................. 3

A minimum of 2 units of fieldwork is required.

*English or ESL requirement based on skill level or SPCH 1A, 11,
12, or 38.

Certificate as a Destination Specialist in Travel and Tourism

Complete any five (15 units) of the following courses:

Course Units
TRTV 162 Destination: Europe ..................... 3
TRTV 164 Destination: So Pacific ................. 3
TRTV 165 Destination: USA/Canada ............... 3
TRTV 166 Destination: Asia .......................... 3
TRTV 168 Destination: Africa/Mid East .......... 3
TRTV 170 Destination: Cent/So Amer & Mex ...... 3

Credit Toward Graduation. All credit that students earn in Travel
and Tourism may also be applied toward satisfaction of the require-
ments for graduation from the college.

CREDIT, DEGREE APPLICABLE COURSES

ACCT 1. Financial Accounting (4)
Lec-5
Prereq.: ENGL 92 or ESL 72 or 150
Advise: BSMA 66 or 68
Introduction to accounting: the accounting process, terminology,
basic theory, and methods of income measurement. Understanding,
analyzing, and interpreting financial statements. CSU/UC/CAN

ACCT 2. Managerial Accounting (4)
Lec-5
Prereq.: ACCT 1
An introduction to cost determination, cost analysis and control,
and performance evaluation: preparation and use of economic in-
formation for internal management purposes. CSU/UC/CAN

ACCT 50. Introduction to Accounting (4)
Lec-5
NOTE: ACCT 1 may be elected in lieu of ACCT 50 to satisfy the re-
quirement in any curriculum in business.
Not open to students who have completed or are concurrently
enrolled in ACCT 1
Advise: BSMA G, H or J or MATH E or EI or EX; and ESL 62 or 68
or 140
Designed to meet the needs of students in specific occupational
programs and as an exploratory course to determine student interest
and aptitude for accounting. An introduction to the financial routine
of a business office. Emphasis on fundamental principles of double-
entry bookkeeping, basic accounting statements, legible hand-
writing, neatness, and accuracy. CSU

ACCT 51. Intermediate Accounting (4) fa
Lec-5
Prereq.: ACCT 2
Designed for the student who pursues accounting beyond intro-
ductive study. A rapid review of fundamentals, with problems in val-
uation and presentation of asset, liability, and proprietorship, together
with a study of special analytical procedure. CSU

ACCT 52. Intermediate Accounting (4) sp
Lec-5
Prereq.: ACCT 51
Continuation of ACCT 51. Problems in stockholders equity, pen-
sions, accounting changes and error analysis, and full disclosure in
financial reporting. CSU

ACCT 53. Accounting on the Microcomputer (3)
Lec-3, lab-2
Prereq.: ACCT 50 or ACCT 1
Advise: MABS 60 and BSMA 66 or 68
Integration of accounting principles and microcomputers in the op-
eration of microcomputer-based accounting systems. Comparison,
analysis, and use of microcomputer accounting software systems.
Emphasis will be placed on Accounts Receivable, Accounts Pay-
able, Payroll, General Ledger, and Financial Statement Analysis
and software systems commonly found in computerized accounting
environments. CSU
ACCT 54. Auditing (3) sp  
Lec-3  
Prereq.: ACCT 2  
Advise: ACCT 51  
The objectives, scope, and history of auditing; the audit program; working papers; internal checking and auditing procedure for balance sheet and profit-and-loss accounts. CSU

ACCT 55. Cost Accounting (3) fa  
Lec-3  
Prereq.: ACCT 2  
Fundamental accounting procedures covering job order, process, and standard cost systems; budgetary control; direct costing; cost reports for management use. CSU

ACCT 56. Municipal Governmental Accounting (3)  
Lec-3  
Prereq.: ACCT 1  
A study of the general accounting process, terminology, reporting practices, compliance issues, budgeting policies, entities, legal issues, and methods of accounting utilized in municipal entities. CSU

ACCT 59. Federal Income Tax (3)  
Lec-3  
Study of the Federal Income Tax Laws: income tax problems and the preparation of income tax returns. CSU

ACCT 59B. California Income Tax (1)  
Lec-1  
Prereq.: ACCT 59  
CR/NC avail.  
Study of California State Income Tax, income tax problems, and the preparation of California income tax returns. CSU

NONCREDIT COURSES

ACBO 9200. Accounting (90 hrs)  
Advise: ESLN 3500, ABE 2074 and 2075  
An open-entry first year course in accounting for both service and merchandising businesses. Proprietary, partnership and corporate forms of organization. Financial statements, the general ledger, journals, and payroll. Maybe be repeated twice until all modules are completed.

ACBO 9203. Principles of Accounting (180 hrs)  
Advise: ESLN 3400, ABE 2074  
Fundamental principles and procedures of accounting. Proprietary, partnership and corporate forms of organization. Financial statements, the general ledger, journals, and payroll. Journalizing transactions, posting journals to both the general ledger and subsidiary ledgers, footing accounts, and spreadsheet applications of these same accounting concepts.

ACBO 9204. Accounting - Corporate (90 hrs)  
Advise: ACBO 9203 or 9200  
Continuation of ACBO 9203. Emphasis on a merchandising business organized as a corporation. Accounting for uncollectible accounts receivable, plant assets, inventory, long-term notes and interest, dividends declaration and distribution. Preparation of financial statements and closing procedures.

ACBO 9205. Computerized Accounting (90 hrs)  
Advise: SECY 9354 and 9356; ACBO 9200  
Intensive practical application of theory and procedures of accounting utilizing computerized accounting systems in single proprietorship, partnership, and corporate forms of ownership.

Business English

CREDIT, DEGREE APPLICABLE COURSES:

BSEN 70. Fundamentals of English Grammar and Composition (4)  
Lec-5  
Advise: ENGL 92 or ESL 82 or placement in ENGL 94  
Understanding the sentence in all its complexities in order to correct errors when proofreading. Study of proper punctuation; practice in writing composition with mature ideas properly organized in well-constructed, correct sentences. CSU

BSEN 74. Business Correspondence (3)  
Lec-3  
Advise: Eligible for ENGL 92 or ESL 82 or placement in ENGL 94  
Practice in writing business letters and memoranda; class discussion on style, structure, and aims of written business messages as they relate to a comprehension of the flow of business communications; experience in using correct, forceful English in business. CSU

BSEN 76. Business and Technical Report Writing (3)  
Lec-3  
Advise: ENGL 92 or ESL 82 or placement in ENGL 94  
Practice in techniques of primary and secondary research and in writing informal, formal, and technical reports which describe clearly, solve problems, present ideas persuasively, and evaluate alternatives. Computers and word processing and editing software programs are available as writing tools. CSU

NONCREDIT COURSES:

BUSG 9901. Business Vocabulary (45 hrs)  
Advise: ESLN 3800  
Helps students with the correct usage of English words in written and spoken communication. Emphasis is on business terms.

BUSG 9903. Introduction to Business English (90 hrs)  
Advise: BUSG 9903  
Improving grammar and punctuation skills to aid in composing and proofreading business correspondence and other documents. Improving writing skills such as organization, clarity and efficiency.

CMNC 9231. Communication Skills: Interviewing Process (18 hrs)  
Advise: BUSG 9903  
Analysis of communication processes and development of skills in interpersonal and telephone interviewing. Includes practice on standardized employment tests, resumes, and applications.

CMNC 9232. Effective Communication (18 hrs)  
Review of the basics of communication including listening, speaking, non-verbal behavior, interpersonal skills, and overcoming barriers in communication.
CMNC 9234. Assessment/Counseling Workshop (18 hrs)
Adviser: BUSG 9903
Provides career planning information and interest/skills testing for persons pursuing careers in business, governments, or community services.

CMNC 9235. Technical Report Writing (18 hrs)
Focuses on delivering technical information that is logically organized, clearly and concisely expressed, and suited to the reader's needs. Emphasis on planning appropriately; organizing materials; creating sentences which are clear and concise; choosing layout for maximum effectiveness and readability; proofreading and editing effectively.

**Business Mathematics**

**CREDIT, NON-DEGREE APPLICABLE COURSES:**

BSMA G. Arithmetic Review and Basic Business Arithmetic (3) (offered only in the evening)
Lec-3 CR/NC only
Required of all business students who do not make a satisfactory score on the City College placement examination in mathematics. BSMA G may be elected in lieu of BSMA H or J. Not open to students who have completed BSMA H or J with a final grade of C or higher, or Credit, or MATH E or EI or EX with a final grade of Credit.

Students who pass BSMA G have satisfied the graduation requirements for mathematics.

A review of arithmetic and its application to business problems in the fundamental processes; fractions; decimals; percentage; and the principles of problem-solving.

BSMA H. Arithmetic Review and Basic Business Arithmetic (3)
Lec-5 CR/NC only
Students who need a thorough review of mathematics should take this course rather than BSMA J to meet first-semester requirements. Counselors may require students to take BSMA H instead of BSMA J. Not open to students who have completed BSMA G or J with a final grade of C or higher, or Credit, or MATH E or EI or EX with a final grade of Credit.

Students who pass BSMA H have satisfied the graduation requirements for mathematics.

Students whose score in the City College placement examination in mathematics is extremely low should take this course rather than BSMA J or G to meet first-semester requirements. Counselors may require students to take BSMA H instead of BSMA J or G.

BSMA J. Elementary Mathematics (2)
Lec-2 CR/NC only
Students who pass BSMA J have satisfied the graduation requirements for mathematics. Two hours per week, required in the first semester of all business students who fail to make a satisfactory score in the City College placement examination in mathematics. BSMA H may be selected in lieu of BSMA J. A brief review and application to business problems of the fundamental arithmetic processes, fractions, decimals, percentages, equations, proportions, and the principles of problem solving.

**CREDIT, DEGREE APPLICABLE COURSES:**

BSMA 66. Business Mathematics (4)
Lec-5
Adviser: Completion of BSMA G, H, or J with a final grade of Credit or MATH E or EI or EX with a final grade of Credit
Not open for credit to students who have completed BSMA 68. BSMA 66 may be elected in lieu of any major requirement for BSMA 68.

A study of gross wages and payroll deductions, trade and cash discounts, markup and markdown, depreciation methods, simple and compound interest, present value and annuities, installment sales, rule of 78, loan amortization, financial statements of different business organizations, various inventory methods, insurance, bank reconciliation, and the use of graphs and tables. CSU

BSMA 68. Mathematics of Business (3)
Lec-3
Adviser: Completion of BSMA G, H, or J with a final grade of Credit or higher or MATH E or EI or EX with a final grade of Credit. Not open for credit to students who have completed BSMA 66.

A study of gross wages and payroll deductions, trade and cash discounts, markups and markdowns, depreciation, simple and compound interest, present value and annuities, installment sales, rule of 78, loan amortization, financial statements of different business organizations, inventory methods, insurance, bank reconciliation, and the use of graphs and tables. CSU

**Commercial Law**

**CREDIT, DEGREE APPLICABLE COURSES:**

CLW 18. Commercial Law (3)
Lec-3
PREREQ.: ENGL 96 or BSEN 70 or placement in ENGL 1A
Not open to students who are enrolled in or have completed LA 53A.
The nature, purpose, and sources of law; the historical development of the law and its function with respect to society and business; contracts, agency, personal property and bailments. CSU/UC
CLW 18 = LA 53A

CLW 19. Commercial Law (3)
Lec-3
PREREQ.: CLW 18 or LA 53A
Not open to students who are enrolled in or have completed LA 53B.
Sales, partnerships, corporations, the regulation of business, and negotiable instruments. CSU/UC
CLW 19 = LA 53B

**Finance**

**CREDIT, DEGREE APPLICABLE COURSES:**

FIN 110. Principles of Insurance I–General Insurance (3)
Lec-3
Not open to students who have completed INS 110.
General study of the field of insurance: risk, risk management, underwriting and loss payments. Introduction to life insurance and the major property and casualty coverage. Designed for the student who is interested in learning about insurance as well as career opportunities within the field. CSU
Formerly INS 110
FIN 130. Principles of Bank Operations (3)
Lec-3
An overview of commercial banking in the U.S.A. from colonial times to the present day. Terminology and principles that form the necessary foundation for students who plan to do advanced work in specialized banking classes. Stressing practical applications, this course prepares both students who intend to work in the financial services industry and students who understand the importance of commercial banking in a general business program. CSU

FIN 133. Money and Banking (3)
Lec-3
The nature and significance of money in both a historical and contemporary sense. Emphasis on the commercial banking process and the Federal Reserve. Financial institutions other than commercial banks; international payments problems. CSU

FIN 136. Introduction to Financial Planning (3)
Lec-3
An introduction to budgeting, spending management, credit usage, insurance's role in financial planning, investment alternatives, tax implications in financial management decisions, and the establishment of retirement plans. CSU

FIN 138. Principles of Investment (3)
Lec-3 CR/NC avail.
The principles and practices in the investment field and successful investment policies for the individual investor. The risks and problems in establishing an investment program, sources of investment information, and tools utilized in security and market analysis. An analysis of the securities markets, investment companies, mutual funds, and individual stocks and bonds. CSU/UC

General Business

CREDIT, DEGREE APPLICABLE COURSES:

GNBS 119. Introduction to Business (3)
Lec-3
This course emphasizes the role of enterprise in society and the international nature of business. For some, this course will be their only exposure to business; others will go on to additional training, education, and specialization with transfer to upper-division institutions in business and other fields. CSU/UC

NONCREDIT COURSES:

CIST 9830. Employment Testing
Designed to improve test-taking skills required for specific employment and civil service examinations at entry and advanced levels.

CIST 9831. Test-Taking Techniques
Information, methods, and techniques for developing skills needed in written and oral examinations. Topics include techniques for taking multiple-choice examinations; reading rapidly with improved comprehension; solving word problems involving business math; working with analogies; understanding charts, tables, and graphs; handling oral examinations; and practice in examination situations.

Insurance

CREDIT, DEGREE APPLICABLE COURSES:

INS 110. Principles of Insurance I—General Insurance (3)
See FIN 110.

INS 111. Introduction to Life, Health, and Group Insurance (3)
Lec-3
Principles and practices of life and disability, hospital and surgical insurance, miscellaneous medical coverages, and group insurance. Analysis of policy forms, claim forms, and rating. Designed for insurance students and for secretarial and other office personnel whose duties include working with insurance forms. CSU

INS 114. Property and Casualty Insurance (3) sp
Lec-3
History of insurance and major property and casualty coverages, insurance company organizations. Major contracts including the standard form fire insurance contract, endorsements and allied lines, transportation coverages, the automobile contract, workers' compensation insurance, and general liability lines. CSU

International Business

CREDIT, DEGREE APPLICABLE COURSES:

INTR 162. Survey of International Business (3)
Lec-3
A comprehensive overview of international business, including a global perspective of international trade, foreign investments, impact on financial markets, international marketing, and the operation of multinational corporations. CSU

INTR 163. International Marketing (3)
Lec-3
Concepts and principles of international marketing through the use of practical examples and actual case studies of international marketing organizations. Studies include: international marketing position of the United States, market entry strategy, analysis of foreign markets, culture and marketing, product design, pricing, distribution, promotion, and sales. CSU

INTR 164A. Exporting Practices (1.5)
Lec-3 (8 wks)
Essential considerations in importing exporting, including terminology, marketing abroad, organization, regulation, documentation, shipment, and financing involved with international movement of merchandise; patterns of selected countries and commodities. CSU

INTR 165A. Importing Practices (1.5)
Lec-3 (8 wks)
Essential considerations in importing, including terminology, steps involved in importing a product or service from beginning to end, introduction to the United States Customs Service, the role of customs brokers, duty rate and structure determination, and basic laws affecting imports. CSU
INTR 166A. Letters of Credit (0.5)
Lec-1 (3 wks)
Methods of structuring, negotiating, and processing letters of credit, discussing costs and defining fees involved. Rights and obligations of the bank, the customer, and the beneficiary are examined, including sources of technical advice, typical problems, payment arrangements, and ways of working with the bank’s international division. CSU

INTR 167. International Law (3)
Lec-3
Introduction to the legal aspects and ramifications of international trade topics including multinational enterprises, sovereignty, technology transfer, arbitration, negotiation, and diplomacy. CSU

INTR 168. Field Work: International Business (1)
Work-5
CR/NC only
Repeat: max. 2 units
On-the-job training and experience in exporting, importing, or international marketing functions with companies engaged in international business. Placement of students is determined according to cooperating firm’s requirements. CSU

INTR 169. Field Work: International Business (2)
Work-10
CR/NC only
Repeat: max. 4 units
On-the-job training in exporting, importing, or international marketing functions with companies engaged in International Business. Placement of students is determined according to cooperating firm’s requirements. CSU

INTR 170. International Finance (3)
Lec-3
Repeat: max. 6 units
An in-depth examination of the process of international banking and financial transactions. Case studies will emphasize techniques, terminology, philosophies, and various successful as well as unsuccessful approaches to international export-import financing. Special focus will be given to preparing small and medium-sized business enterprises to compete in a global environment. CSU

INTR 172. The Internet for International Business (2)
Lec-2, lab-2
CR/NC only
Repeat: max. 6 units
A practical exploration of conducting successful international business using the tools and resources of today’s Internet, including E-commerce marketing and trade leads, product and trade data access, research and search engines, web site alternatives, transportation tracking, governmental resources and assistance, electronic submission of customs documentation, electronic payment and financing, internet software tools and business related hardware options. CSU

INTR 173. Export-Import (3)
Lec-3
A comprehensive examination of the process of international Export and Import practices. The course includes techniques, terminology, philosophies, and various approaches to international export-import business. Special focus will be given to preparing small and medium-sized business enterprises to compete in a global environment. (Please note that students that have taken either INTR-164A or INTR-165A are not eligible to take this course.) CSU

NONCREDIT COURSES:

INTR 9456. Export/Import Shipping and Insurance (3 hrs)
An introduction to shipping exports via air and sea and to obtaining the necessary insurance.

INTR 9457. Export/Import Marketing (3 hrs)
An introduction to international marketing. Identification and evaluation of markets abroad. Developing a marketing strategy.

INTR 9458. Export/Import Financing (3 hrs)
An overview of the various methods of receiving payment for export sales, the types of financing available through commercial banks, letters of credit, and government assistance programs.

INTR 9459. Export/Import Basics (3 hrs)
An overview of the import/export process including comparison of domestic and international transactions, methods and sources of market research, assessment of product import/export potential, and assistance available from various government agencies.

INTR 9460. Export/Import Documents (3 hrs)
An examination of the simultaneous flow of documents, goods, and payments in an export or import transaction, and an explanation of the various documents which may be required. Practice in the preparation of the most commonly used documents.

INTR 9480. International Business (18 hrs)
Advise: ESLN 3500
A survey of the methods, problems and environments of selected trading partners. Covers exporting, importing, finance, investment, human resources, culture and marketing as applied to world trade. Various regions may be emphasized by arrangement.

INTR 9773. U.S. Trade Competitiveness (3 hrs)
A discussion of the causes and possible remedies for the current U.S. trade imbalance.

INTR 9785. U.S. Trade with Asia I (3 hrs)
An analysis of trade relationships between U.S. and the nations of the Western Pacific, in particular the developed economies of Australia, Hong Kong, Japan, New Zealand, Republic of Korea, and Taiwan. A discussion of future trends and prospects for the future.

INTR 9786. U.S. Trade with the Americas (3 hrs)
An overview of the trade relationships between U.S. and the other countries of the Western Hemisphere.

INTR 9787. U.S. Trade with African Countries (3 hrs)
An overview of the trade relationships between the U.S. and the countries of Africa.

INTR 9790. U.S. Trade with Asia II (3 hrs)
An overview of trade relationships between U.S. and the developing economies of South and East Asia, including India, Indonesia, Malaysia, People’s Republic of China, Philippines, Singapore, Thailand, and Vietnam.

INTR 9791. U.S. Trade with Western Europe (3 hrs)
An analysis of U.S. trade relationships with the countries of Western Europe. Particular attention will be paid to the impact of the European Union on U.S. trade potential.

INTR 9792. U.S. Trade with Eastern Europe (3 hrs)
An analysis of U.S. trade with East Europe and the countries of the former Soviet Bloc, and an assessment of future trends.
INTR 9793. U.S. Trade with the Middle East (3 hrs)
Assess the state of U.S. trade with the countries of the Middle East and evaluate future prospects.

INTR 9794. Developing the International Business Plan (3 hrs)
Analysis and preparation of international business and marketing plans.

INTR 9795. International Bids, Proposals (RFPs) and Tenders (3 hrs)
Assess and evaluate international bids, proposals and tenders. Identify the essential elements and steps in preparing a winning proposal.

INTR 9796. International Trade Agencies and Agreements (3 hrs)
Analysis and review of the role of International Monetary Fund, World Bank, and World Trade Organization. Examination of trade agreements such as NAFTA and the European Union and their effect on U.S. import/export trade.

Paralegal/Legal Studies

CREDIT, DEGREE APPLICABLE COURSES:

L A 51. Introduction to Legal Assisting (3)
Lec-3
PREREQ.: ENGL 96 or BSEN 70 or Placement in ENGL 1A
Introduction to law, the legal system, and the roles of the paralegal; exploration of job descriptions and functions of the paralegal; the relationship and comparison of paralegal and lawyer; introduction to legal terminology and basic research. CSU

L A 52. Introduction to Legal Writing (3)
Lec-3
PREREQ.: ENGL 96 or BSEN 70 or Placement in ENGL 1A
Basic techniques of writing including review of grammar, spelling and word usage, sentence structure, basic writing, punctuation, capitalization and oral and electronic communication skills as they relate to the legal field. CSU

L A 53A. Commercial Law (3)
Lec-3
PREREQ.: BSEN 70 or ENGL 96 or Placement in ENGL 1A
Not open to students who have completed CLW 18.
The nature, purpose, and sources of law; the historical development of the law and its function with respect to society and business; contracts, agency, personal property, and bailments. CSU/UC
L A 53A = CLW 18

L A 53B. Commercial Law (3)
Lec-3
PREREQ.: L A 53A/CLW 18
Not open to students who are enrolled in or have completed CLW 19. Continuation of L A 53A or CLW 18.
Sales, partnerships, corporations, the regulation of business, and negotiable instruments. CSU/UC
L A 53B = CLW 19

L A 54. Business and Corporate Law (3)
Lec-3
Advis: L A 75
Legal aspects of various business enterprises, including corporations, sole proprietorships, partnerships, and joint ventures. Common procedural and organizational aspects, legal problems and the role of the attorney and paralegal in approaching these problems. CSU

L A 55. Tort Law and Claims Investigation (3)
Lec-3
PREREQ.: L A 75
The law of torts and its application, including a survey of the substantive law of torts; procedures for case analysis, interviewing clients and witnesses, discovery techniques; liability insurance; the paralegal's role prior to and at the time of trial. CSU

L A 60. Wills, Trusts, and Probate Administration (3)
Lec-3
PREREQ.: L A 75
Fundamental principles of the law of wills and trusts, including simple will and trust forms; organization and jurisdiction of a California probate court; administration of estates in California probate courts, including gift, inheritance, and estate taxes; practice in documentation. CSU

L A 61. Environmental Law (3)
Lec-3
Advis: L A 75
Fundamentals of environmental law, including names and structure and purpose of federal and state environmental laws; regulations and agencies implementing federal and state environmental laws; regional and local environmental laws, regulations, and agencies; administrative and legislative procedure; clients' environmental issues; and documentation of environmental issues. CSU

L A 62. Legal Aspects of Employee Benefits and Executive Compensation (3)
Lec-3
Advis: L A 75
Study of types of employee benefit and executive compensation plans and their purposes, roles of governmental agencies, and basic legal requirements and how to demonstrate compliance with them; the basics of legal research in ERISA; plan documents and employee communications. CSU

L A 63. Labor Law (3)
See LABR 72.

L A 64. Debtors' Rights and Creditors' Remedies (3)
Lec-3
Advis: L A 75
An examination of the rights of debtors and the remedies of creditors before, during, and after a lawsuit. A review of forms and documents used. CSU

L A 65. Family Law (3)
Lec-3
PREREQ.: L A 75
The legal aspects of marriage and the dissolution and annulment thereof; community property; guardianship; adoption; rights and responsibilities of stepparents and juveniles; child support and alimony. CSU
L A 66. Intellectual Property (3)
Lec-3
ADVICE: L A 75
Principles of intellectual property law in trademarks, copyrights, and patents including international conventions and differences between ideas and expression of ideas, fair-use doctrine, and the notion of public domain. CSU

L A 67. Immigration Law (3)
Lec-3
ADVICE: L A 75
This course identifies eligible immigrants, classes of visas, citizenship eligibility and application, and special conditions. Topics include I.N.S. structure, procedures, and filings; factual, country, and legal research; and immigration case management and technology. Hands-on approach. CSU

L A 68. Medical Law (3)
Lec-3
ADVICE: L A 53A or CLW 18 AND L A 75
General business law (including the law of contracts, corporate legal structures, and antitrust liability) as it applies to the establishment of health care organizations. The law of health care management, including such topics as managed care, professional liability and patients' rights, and health care as a legal right. CSU

L A 69. Communications Law (3)
Lec-3
ADVICE: BCST 100, 103, CLW 18/L A 53A, OR JOUR 19
Students will examine the major legal issues faced by the media in the United States. Topics include the First Amendment, prior restraint, defamation, obscenity, fair trial, and free press. Additional topics include broadcasting, cable, and new electronic media as well as the evolving legal and ethical issues associated with the Internet. CSU

L A 70. Civil and Criminal Evidence (3)
See ADMJ 53.

L A 71. Civil Litigation (3)
Lec-3
PREREQ.: COMPLETION/CONCURRENT ENROLLMENT IN L A 75
Introduction to civil litigation process from client interview through appeal, including drafting of various litigation documents. CSU

L A 72. Investigation, Discovery, and Trial Preparation (3)
Lec-3
PREREQ.: L A 71 AND 75
In-depth coverage of investigation, discovery, and trial preparation in civil litigation. Manage and analyze data. CSU

L A 75. Legal Research and Writing (3)
Lec-3
PREREQ.: L A 51 AND 52
The proper techniques of primary and secondary research; extensive practice in the techniques of writing legal memoranda. CSU

L A 80. Law Office Management and Procedures (3)
Lec-3
PREREQ.: L A 81/MABS 60; L A 53A/CLW 18
Students gain knowledge of the legal industry, knowledge of how a law office functions, and practical skills. They study law office management systems, personnel management, accounting, and operations. Students receive hands-on training in the use of law office equipment and in the preparation of legal documents and correspondence. CSU

L A 81. Microcomputer Applications for Business (3)
See MABS 60.

L A 92. Legal Aspects of Real Estate (3)
See RE 185.

L A 97. Work Experience (3)
Work-minimum paid supervised 225 hrs. or unpaid supervised 180 hrs. plus coordinating conferences and individual meetings
COREQ.: ENROLLMENT IN AT LEAST 4 ADDITIONAL UNITS AND CONSENT OF INSTRUCTOR
ADVICE: Completion/concurrent enrollment in LA 51, 52, 71, or 75
Repeat: max. 6 units, including units from L A 98 and 99 Max. units of work experience per semester: 3
Supervised employment involving legally-related duties. CSU

L A 98. Work Experience (2)
Work-minimum paid supervised 150 hrs. or unpaid supervised 120 hrs. plus coordinating conferences and individual meetings
COREQ.: ENROLLMENT IN AT LEAST 5 ADDITIONAL UNITS AND CONSENT OF INSTRUCTOR
ADVICE: Completion/concurrent enrollment in LA 51, 52, 71, or 75
Repeat: max. 6 units, including units from L A 97 and 99 Max. units of work experience per semester: 3
Supervised employment involving legally-related duties. CSU

L A 99. Work Experience (1)
Work-minimum paid supervised 75 hrs. or unpaid supervised 60 hrs. plus coordinating conferences and individual meetings
COREQ.: ENROLLMENT IN AT LEAST 6 ADDITIONAL UNITS AND CONSENT OF INSTRUCTOR
ADVICE: Completion/concurrent enrollment in LA 51, 52, 71 or 75
Repeat: max. 6 units, including units from L A 97 and 98 Max. units of work experience per semester: 3
Supervised employment involving legally-related duties. CSU

Marketing

CREDIT, DEGREE APPLICABLE COURSES:

MRKT 122. Fundamentals of Salesmanship (3)
Lec-3
Practice and problems in the field of personal salesmanship. An analysis and discussion, on a workshop basis, of the fundamental and technical aspects of selling goods and services. Special attention given to individual student's salesmanship qualities. CSU

MRKT 140. Principles of Marketing (3)
Lec-3
Required for all Marketing and Fashion Merchandising majors
A general survey of types and functions of marketing institutions, products and services, channels of distribution, trends in marketing practices, and a study of consumer behavior. CSU
MRKT 145. Microcomputer Marketing Applications (3)
Lec-3, lab-3
Introduction to and integration of word processing, graphic presentation, and Internet using Microsoft Office Professional software applications for electronic marketing. Experience in creating a word processed sales letter, a document to market services, a multiple-page sales report, and a newsletter; an electronic slide presentation targeting potential customers; an Internet survey; and Web pages, including a marketing product report, marketing plan, and salesperson’s profile. CSU

MRKT 148. Marketing Management and Supervision (3)
Lec-3
Supervisory skills and management techniques for middle management personnel in marketing businesses and industry. Topics include understanding and motivating people, leading others, communicating, delegating, training, decision-making and personal development. CSU

MRKT 170. Fundamentals of Advertising (3)
Lec-3
Required for all Marketing and Fashion Merchandising majors
A practical introduction to advertising. In-depth study of advertising media and jobs in advertising. Study and practice in creating advertising campaigns. CSU

Microcomputer Applications for Business

CREDIT, DEGREE APPLICABLE COURSES:

MABS 60. Microcomputer Applications for Business (3)
Lec-3, lab-3 CR/NC avail.
Advise: WDPR 78
Not open to students who are enrolled in or who have completed L A 81
Introduction to the fundamental concepts and skills of the operating system and the three most frequently used computer software program applications used in business: word processing, electronic spreadsheets, and database management. CSU/UC

MABS 61. Advanced Microsoft Office for Windows (3)
Lec-3, lab-3 CR/NC avail.
Prereq.: MABS 60 or demonstration of MABS 60 exit skills
Creating spreadsheet, database, word processing, and presentation projects using advanced features in Microsoft Office. Preparing documents for the World Wide Web by utilizing Office’s built-in tools. CSU

MABS 67. Database for Business/Access for Windows (3)
Lec-3, lab-3 CR/NC avail.
Advise: WDPR 78
Introduction to a relational dynamic database environment using Access for Windows. Experience creating and modifying business databases; data manipulation and retrieval, and report generation. CSU

MABS 88. Microcomputer Applications Laboratory (0)
Lab-10
Coreq.: Any Business Department credit or noncredit class
An open laboratory for students who are completing homework assignments for Business Department credit and noncredit classes. Enroll in the lab. CSU

MABS 101. Spreadsheets for Business/Excel (3)
Lec-3, lab-3 CR/NC avail.
Advise: WDPR 78 or ability to type 25 wpm; BSMA 66 or 68
Experience in creating, modifying, and printing spreadsheets using Excel software on either IBM-PC compatible or Macintosh computers. Includes creating charts, working with database features, and the use of macros. CSU

MABS 160. Survey of Business Data Processing (3)
Lec-3, lab-0.5
An introduction for business students stressing the principles, terminology, and programming of a business data processing system. The concepts of a management information system, its uses, limitations, and impact on organizations reviewed. An introduction to the programming language BASIC is given by the entering and testing of business problems using computers. CSU

Lec-1, lab-1 CR/NC avail.
Advise: WDPR 78
Introduction to the creation of business presentations using PowerPoint for Windows. Topics include developing on-screen slides; inserting tables, pictures, and spreadsheets into the presentation; and constructing a slide show utilizing transitions and timings. CSU

MABS 301. Novell Network Administration (2)
Lec-2
Basic and fundamental network management tasks are covered in lecture and hands-on lab assignments using a Novell Local Area Network. Includes user support, directory structures, security, backups, menus, mail, and use of file server and workstation utilities. Prepares students to take the Certified Novell Administrator examination. CSU

MABS 302. Novell Administration: Advanced (1)
Lec-1
Advanced network management concepts and tasks using a Novell Local Area Network including: server configuration, management, and maintenance; performance monitoring; accounting; advanced services; network configuration to support other protocols (e.g., TCP/IP and Mac). Prepares to take the Certified Novell examination for this subject. CSU

MABS 405. Developing Web Sites - FrontPage (3)
Lec-3, lab-3 CR/NC avail.
Advise: MABS 60 (knowledge of Microsoft Windows and Microsoft Office)
Practical instruction in designing and publishing business web pages on the Internet using Microsoft FrontPage. Web sites will include: page division with frames, interactive input forms, tables, hyperlinks, graphics, animated images and multimedia. Exploration of how an enterprise might plan, design, produce, promote, and maintain a business web site. CSU
MABS 406. Developing Web Sites - Dreamweaver (3)
Lec-3, lab-3 CR/NC avail.
Advised: MABS 60
Designing and publishing business web pages on the Internet using
Macromedia Dreamweaver. Web sites will include page division
with frames, interactive input forms, tables, hyperlinks, graphics,
animated images and multimedia. The course will explore how an
enterprise might plan, design, produce, promote, and maintain a
business web site. CSU

COMP 9245. Introduction to Computers/Operating Systems (27 hrs)
Advised: SECY 9388
Explores the utilization of the microcomputer in diverse environ-
ments; survey of computer systems and techniques; history of
computer and information sciences; computer equipment and pro-
gramming systems, design, development, and implementation.
The use of computers in the solution of typical business management
problems and tasks is emphasized.

COMP 9857. Micro Business Applications (90 hrs)
Advised: ESLN 3500; COMP 9245
Introduces commonly used business software such as word pro-
cessing, spreadsheet and database.

COMP 9867. Spreadsheets - Level 1 (15 hrs)
Advised: ESLN 3500; COMP 9245
Introduces spreadsheet software and terminology. Students learn to
create, edit, and print spreadsheets. Additional topics include for-
matting data and entering labels, formulas, and functions. Students
are encouraged to do hands-on practice outside of class.

COMP 9869. Computer Lab Orientation (9 hrs)
Advised: ESLN 3400; SECY 9388
A hands-on introduction to the hardware, software, operating
system and lab procedures.

COMP 9888. Spreadsheets - Level 3 (15 hrs)
Advised: COMP 9895
Introduces students to the following Excel 2000 spreadsheet con-
cepts: brief review of Level 1 and 2 concepts, creating databases in
Excel, recording macros, debugging recorded macros, writing basic
macros using Excel's Visual Basic structure.

COMP 9889. Overview/Applications (90 hrs)
Advised: ESLN 3500; SECY 9388
A thorough introduction to microcomputers, with hands-on experi-
ence using popular applications to solve common business prob-
lems. Projects in word processing, spreadsheets and databases are
emphasized. Information processing concepts and vocabulary, and
information about jobs using computers is included.

COMP 9894. Databases - Level 1 (12 hrs)
Advised: ESLN 3500; COMP 9245
Techniques and applications of database management. Topics
include creating and altering a database, searching techniques and
creating reports.

COMP 9895. Spreadsheets - Level 2 (15 hrs)
Advised: COMP 9867
Introduces students to the following Microsoft Excel 2000 con-
cepts: brief review of Level 1 concepts, design of advanced
formulas and functions, basic Excel charting concepts, techniques
for handling multiple worksheets, 3D worksheet concepts, advanced
printing features, inserting graphics and using Excel 2000 drawing
tools.

COMP 9896. Microcomputers - Individual Projects (45 hrs)
Advised: Completion of at least one 45 hour applications course or
equivalent experience
Students will undertake individual projects using micro applications
such as word processing, spreadsheets, databases, and desktop pub-
lishing. Projects will be individualized or worked on in teams and
will be determined in consultation with the instructor. Students will
learn strategies and problem solving techniques related to practical
applications including importing and exporting files between any
two programs.

COMP 9899. Desktop Publishing - Beginning (45 hrs)
Advised: ABE 2074; SECY 9388; COMP 9245
Survey of the hardware, software, terminology and techniques used
in microcomputer-based publishing. Additional topics include page
layout features and popular equipment configurations. Experience
in the basics of layout, importing text and graphics, and preparation
of camera-ready copy for business applications.

COMP 9900. Spreadsheets - Beginning (45 hrs)
Advised: ABE 2088; ESLN 3500; SECY 9388; COMP 9245
Comprehensive introduction to using spreadsheet software to solve
business problems. Students learn to set up, format, save and print
spreadsheets. Additional topics include using logical and mathema-
tical functions and creating graphs from spreadsheet data.

COMP 9901. Databases - Beginning (45 hrs)
Advised: ABE 2088; ESLN 3500; SECY 9388; COMP 9245
Development of practical skills in the use of microcomputer
database software for information management. Topics include
designing and building database structures, entering and editing
records, searching, sorting and selecting records, and generating
various kinds of reports.

COMP 9902. Graphics for Business (45 hrs)
Advised: ABE 3088; ESLN 3500; COMP 9245
Students learn to prepare and present business information in
graphic form. Pie, bar, text and other charts are created using
appropriate software, with emphasis on selecting appropriate graph
formats to increase visual impact.

COMP 9903. Software Update (15 hrs)
Software programs change frequently as vendors enhance their
products by adding new features or introducing new programs with
more capabilities. This course explains the features and enhance-
ments of the latest release of a software program (to be named in
the schedule) and provides hands-on practice. Content varies, may
be repeated when content changes.

COMP 9904. Spreadsheets - Intermediate (45 hrs)
Advised: COMP 9900
Designed for proficiency in using spreadsheet software to solve
business problems. Students learn enhanced worksheet design for
business applications, database management techniques, and cre-
ting and executing simple and complex macros (stored procedures).
COMP 9905. Computer Applications - Introduction (45 hrs)
Advised: ABE 2074; ESLB 3821; SECY 9388
An introduction to computers and their uses in business. Students will write and print a short business letter, create and sort a mailing list, and enter and edit a bookkeeping worksheet, using common computer programs. The course will include at least 20 hours of hands-on lab time.

COMP 9906. Databases - Level 2 (15 hrs)
Advised: COMP 9894
An overview course introducing the student to the intermediate features of databases. Students will be shown through hands-on exercises how to create a custom screen, manage numbers and dates, manage multiple files, and write and run a simple program. Students are encouraged to do hands-on practice outside of class.

COMP 9907. Desktop Publishing - Intermediate (45 hrs)
Advised: COMP 9899
The production of camera-ready copy for flyers, business reports, newsletters, etc. using desktop publishing software. Experience in using typographical controls and page layout tools to format for visual impact and readability.

COMP 9908. Micro Applications - Current Topics (45 hrs)
Advised: ABE 2074 or ESLB 3821; SECY 9388 or 25 net wpn keybording; Any hands-on introductory computer course of at least 27 hours or equivalent experience
Use of the latest state-of-the-art microcomputer software and its application to business and office procedures. Students work with industry-specific software or explore new features in the latest version of an older software release. Taught-hands-on in a computer lab. Course content varies.

COMP 9909. Spreadsheets - Advanced (45 hrs)
Advised: COMP 9904
Emphasis on solving real-life business problems with advanced spreadsheets. Includes data sharing and data analysis techniques for computing projections, probabilities and estimates.

COMP 9910. Databases - Intermediate (45 hrs)
Advised: COMP 9901
Development of practical intermediate skills in the use of microcomputer database software for information management. Topics include creating custom forms, creating complex search criteria for performing multiple searches, queries and sorts, creating complex reports and queries, performing complex calculations, managing multiple related databases, and simple programming.

COMP 9911. Databases - Advanced (45 hrs)
Advised: COMP 9910
Development of practical advanced skills in the use of microcomputer database software for information management. Topics include creating custom applications, using an applications generator, programming techniques, keystroke macros, intelligent custom forms, and interfacing with other programs.

COMP 9913. Microcomputer Lab (90 hrs)
An open laboratory in which students may complete their microcomputer assignments or word processing assignments.

COMP 9914. Desktop Publishing - Advanced (45 hrs)
Advised: COMP 9907
Setting type to specifications and learning specialized features such as marking text and graphics for printing spot color overlays, automatic table of contents generation and automatic index generation. Individual projects.

COMP 9917. Building Individual Web Sites (45 hrs)
Advised: Completion of beginning word processing, spreadsheet, and database courses and at least one intermediate word processing, spreadsheet or database course
Integrating the individual applications and services contained in Office 97 into a functional unit for building custom solutions to business problems, individually, in a workgroup, and on the Web, using readily available Office 97 capabilities such as data access, reporting, and analysis, information publishing, messaging and query operations, document collaboration, and macros.

COMP 9918. Building Business Web Sites (45 hrs)
Advised: Completion of at least one word processing, spreadsheet, or database course
Using the Internet for business information gathering and dissemination. Designing, maintaining, and publishing business web sites. Creating web pages and Internet business applications using FrontPage and Office 97.

CMSP 9241. Introduction to Computers/ABE (90 hrs)
Advised: ABE 2070, ABE 2073, SECY 9388
A course in basic computer literacy.

Office Technology

CREDIT, DEGREE APPLICABLE COURSES:

WDPR 78. Keyboarding (1)
Lab-5 (8 wks) CR/NC avail.
Open to students who have had no previous training in typing.
No credit given to students who have passed a course in beginning typing at City College or any other educational institution.
Development of keyboard control; accuracy, speed, and concentration exercises; equipment operation and care. Completion requirement: Ability to type by the touch method, 25 words a minute gross in a series of three-minute tests with an average of not more than one error per minute. CSU

WDPR 79. Speedbuilding: Keyboarding (1)
Lab-5 (8 wks) CR/NC avail.
Prereq: WDPR 78 or the ability to type 25 words a minute for 3 minutes with no more than 3 errors.
Repeat: max. 4 units
A review of good typing techniques, manipulation of machine parts, and keyreaches. Emphasis on the development of speed and control. CSU
WDPR 80. Word Processing Document Production (3)
Lec-3, lab-3
Prereq.: WDPR 79 or the ability to type 35 words a minute with no more than one error a minute
Advis: ENGL 90 or ESL 72 or 150
Entering, formatting, proofreading, and revising business documents such as letters, single- and multi-page reports, outlines, tables, minutes, and resumes to an acceptable office standard using a word processing system. Students also interpret proofreading marks, compose brief office messages, and continue to enhance their keyboarding skills. CSU

WDPR 391. Complete Word Processing - Word for Windows (3)
Lec-3, lab-3
Prereq.: WDPR 79 or the ability to type at least 35 words a minute with no more than one error a minute
Advis: ESL 72 or 150
Not open to students who are enrolled in or have completed WDPR 391A or 391B.
Experience creating, formatting, editing, and printing documents on the IBM personal or compatible computer using Word for Windows. Features covered include the spelling and grammar checkers, page numbering, and tables. Advanced features include headers and footers, footnotes, merge features, macros (automatic keystroke repetition), style sheets, newspaper and parallel columns, sorting, and other features as time permits. CSU

WDPR 391A. Beginning Word Processing - Word for Windows (1.5)
Lec-3, lab-3 (8 wks)
Prereq.: WDPR 79 or the ability to type 35 words a minute with no more than one error a minute
Advis: ESL 72 or 150
Not open to students who are enrolled in or have completed WDPR 391.
Experience creating, formatting, editing, and printing documents on the IBM Personal or compatible computers using Word for Windows. Features covered include the spelling and grammar checkers, page numbering, and creating tables with the table feature. CSU

WDPR 391B. Advanced Word Processing - Word for Windows (1.5)
Lec-3, lab-3 (8 wks)
Prereq.: WDPR 391A
Not open to students who are enrolled in or have completed WDPR 391.
Explore Word for Windows' sophisticated document preparation features on the IBM Personal Computer or a compatible computer. Create documents using headers and footers, footnotes, merge features, macros (automatic keystroke repetition), style sheets, newspaper and parallel columns, sorting, and other features as time permits. CSU

WDPR 431. Desktop Publishing - PC PageMaker (3)
Lec-2, lab-3
Hands-on experience using PageMaker (on IBM-PC compatible computers) to design and build a publication. Students work with graphics and text, design pages, and handle common business and technical writing applications. CSU

NONCREDIT COURSES:

SECY 9341. Business Math With Spreadsheets I (90 hrs)
Advis: HSEN 2267 and ESLG 3500
Use of spreadsheet software to make common business calculations such as discounts, commissions, markup, credit charges, simple and compound interest, and present value.

SECY 9346. Effective Business Communication (90 hrs)
Advis: Basic knowledge of word processing. Completion of business English strongly recommended.
Students will learn skills and strategies to become more effective writers. These skills provide students with the necessary foundation for continued development and advancement in their careers through improved written communication.

SECY 9348. Business English (90 hrs)
Advis: ESLG 3800
Development of written communication skills: punctuation, business vocabulary, capitalization, composition of business correspondence, spelling, proofreading, and use of office reference materials.

SECY 9354. Business Machines/10 Key (90 hrs)
Emphasis on developing speed and accuracy on the 10-key keypad. Practice in the efficient and effective use of function keys for business computations.

SECY 9374. Keyboarding - All Levels (180 hrs)
Advis: ESLG 3500
An open-entry, open-exit course providing individualized and group instruction as appropriate for beginning through advanced keyboarding students.

SECY 9375. Clerical Keyboarding (180 hrs)
Advis: ESLG 3500
Prepares students for entry-level clerical employment. Keyboarding for accuracy and speed, instruction in formatting office correspondence, practice in simulated office keyboarding tasks, and operation of the ten-key calculator by touch.

SECY 9377. Keyboarding Laboratory (90 hrs)
Allows students to refresh their skills, prepare for timed writings before employment interviews, tutorial refresher for WordPerfect, 10-key course practice.

SECY 9388. Keyboarding For Computers (45 hrs)
Advis: ESLG 3400
Students will acquire basic knowledge of the keyboard to interact more efficiently with desktop computers, computer terminals, or electronic communication systems. Instruction covers introduction to the keyboard and development of basic keyboarding skills.

SECY 9392. Secretarial Office Practice (90 hrs)
Advis: SECY 9374; ESLG 3500 and 3600
Students produce standard office documents using electric or electronic typewriters. Students learn to accurately type and transcribe documents. Composing typical office correspondence, producing statistical reports, and accurately assessing personal productivity.
SECY 9399. Office Technology - Laboratory (180 hrs)
Adviser: ESLN 3300: ABE 2074 or equivalent; SECY 9374 or keyboarding speed of 25 wpm; COMP 9905
An advanced microcomputer keyboarding/office production course with emphasis on current office procedures and practices. Word processing and document formatting skills on the microcomputer are developed and enhanced. Modules on telecommunications, Internet, ten-key printing calculator, and machine transcriptions are provided.

SECY 9400. Job Preparation (45 hrs)
Learn to prepare resumes, write cover letters and thank you letters, access and perform job-hunting techniques.

WOPR 9486. Word Processing - Beginning Word 97 (45 hrs)
Adviser: ABE 2074; ESLB 3821; SECY 9374
In this hands-on course, students learn how to create, edit, save, and print business documents. Covers formatting procedures (such as changing margins, line spacing and tab stops) and emphasizing text (such as underlining and centering). Techniques for handling multi-page reports are introduced.

WOPR 9990. Word Processing (Multi-Level) (90 hrs)
Adviser: SECY 9348; SECY 9374
Identification and use of equipment typical of a word processing center. Operation of desk-top editing equipment to create, store, edit, and print various types of documents suitable for personal use.

WOPR 9991. Word Processing - Level 1 (15 hrs)
Adviser: ABE 2003; ESLB 3821; SECY 9388
Introduces basic concepts and components of word processing applications through actual practical experience with word processing and software.

WOPR 9993. Word Processing - Level 2 (15 hrs)
Adviser: WOPR 9991
An overview of the intermediate features of word processing: create, edit, and print out a document. Outlines, headers and footers, page numbers, simple macros and columns.

WOPR 9994. Word Processing - Level 3 (15 hrs)
Adviser: WOPR 9993
Advanced features and techniques of word processing including sorting, styles, tables, borders, calculating, and mail merge.

WOPR 9995. Word Processing - Intermediate (45 hrs)
Adviser: WOPR 9486
Special word processing features to create, revise and print business documents. Topics cover moving and copying text, indenting paragraphs, changing format for part of document (margins, line spacing, tab stops) and hyphenation. Additional topics include using a spelling checker and backing up documents. Techniques for controlling page ends in multipage reports are introduced. Hands-on practice.

WOPR 9996. Word Processing - Advanced (45 hrs)
Adviser: WOPR 9995

WOPR 9997. Word Processing - Special Topics (45 hrs)
Adviser: WOPR 9996
In this hands-on course students concentrate on: (a) advanced features that are specific to a particular word processing system (b) features that are useful for document processing in a specific industry (e.g. legal).

**CREDIT, DEGREE APPLICABLE COURSES:**

RE 97. Work Experience in Real Estate (3)
Work-225 total paid, supervised hrs., or 180 total unpaid, supervised hrs., conf-var.
Coreq.: Enrollment in at least 4 additional units and written consent of Instructor
Repeat: max. 6 units
Supervised employment involving real estate duties. CSU

RE 181. Principles of Real Estate (3)
Lec-3
The fundamental real estate course covering the basic laws and principles of California real estate; background and terminology necessary to advanced study in specialized courses. Designed to assist those preparing for the real estate salesperson licensing examination. CSU

RE 182. Escrow Fundamentals (3)
Lec-3
Basic methods and techniques of escrow procedures and legal responsibilities of individuals engaged in escrow work. Types of instruments used on the job and their preparation, closing statements, disbursement of funds, proration calculations, public and ethical responsibilities. CSU

RE 183. Real Estate Property Management (3)
Lec-3
An introductory course dealing with real estate property management and its relation to the areas of management, agency, contracts, rentals (e.g., lease and rental agreements), basic rent rules, rent control, tenant selection, insurance, repairs and maintenance, evictions, discrimination, landlord and tenant rights, public and private housing facilities, government regulations and participation, and the real estate industry. CSU

RE 184. Real Estate Practice (3)
Lec-3
Day-to-day functions and operations of the real estate broker and salesperson; real estate brokerage, including listing, prospecting, advertising, financing, sales techniques, escrow, and ethics. CSU

RE 185. Legal Aspects of Real Estate (3)
Lec-3
California real estate law (including rights incident to property ownership and management, agency, and contracts) as applied to real estate transfer, conveyance, probate proceedings, trust deeds, and foreclosure, as well as recent legislation governing real estate transactions. CSU
RE 186. Principles of Real Estate Finance (3)
Lec-3
Analysis of real estate financing, including lending policies in financing residential, commercial and special purpose properties. Emphasis on various methods of financing. CSU

RE 187. Tax Aspects of Real Estate Transactions (3)
Lec-3
The impact of federal and California State income-tax and other tax laws upon the purchase, sale, exchange, and use of real property. Taxation with regard to depreciation, capital gains, installment sales, pre-paid interest, and tax-saving opportunities. Real property taxation, federal gift and estate taxes, and transfer taxes. CSU

RE 189. Real Estate Economics (3)
Lec-3
Use of economic analysis as the basis for prudent real estate purchase and investment. Urban land and real estate economics and effective demand. Impact of financing and government policy with respect to the market of investors. Economic advantages and disadvantages of various types of real estate purchase and investment. Personal investment profiles. CSU

RE 191. Principles of Real Estate Appraisal (3)
Lec-3, field trips
A basic course in real estate valuation with emphasis on residential property. Definitions and concepts; principles of valuation; the appraisal process; analysis of city, neighborhood and site data; architectural styles and utility; depreciation; valuation by market data, cost and income approaches; correlation of approaches and final estimate of value; the appraisal report; and the professional appraiser. CSU

RE 192. Advanced Real Estate Appraisal (3)
Lec-3
Advanced study in appraisal and valuation techniques with emphasis on income, commercial, and industrial properties. Case testimony reports for governmental agencies. CSU

RE 193. Real Estate Computer Applications (3)
Lec-3
Exploration of basic computer functions, along with the latest computer software dealing with the real estate appraisal, property management, finance, escrow, sales, listings, record keeping and other related areas of real estate. CSU

RE 194. Affordable Housing Property Management (3)
Lec-3
Introduction to affordable housing property management and its relation to the areas of management, agency, contracts, rentals (e.g., lease and rental agreements), basic rent rules, rent control, tenant selection, insurance, repairs and maintenance, evictions, discrimination, landlord and tenant rights, HUD rules and regulations, public and private housing facilities, government regulations and participation, and the real estate industry. CSU

Small Business

CREDIT, DEGREE APPLICABLE COURSES:

SMBS 135. Ownership and Operations of a Small Business (3)
Lec-3
CR/NC avail.
An introduction to organizing and managing a successful small business enterprise. Emphasis on formulating a business plan, preparing financial statements, conducting marketing research, finding sources of financing, developing marketing and business strategies, and responding to legal and ethical issues. CSU

NONCREDIT COURSES:

SMBU 9399. Human Resources - Small Business
Interpersonal behavior as related to the administration of a small business. Focus on personal components such as: organizational structure, communications, motivation, selection and placement, management development and leadership.

SMBU 9403. Small Business Bookkeeping (54 hrs)
Advise: ABE 2074 or equivalent
Development of accounting knowledge and skills needed to operate a small business. Bookkeeping cycle, payroll and voucher systems, journal entries, the balance sheet, and income statements.

SMBU 9408. Small Business Marketing (3 hrs)
An in depth view of marketing for the small business operator. Market analysis, marketing techniques and programs suitable for the small business.

SMBU 9418. Small Business and Taxes (3 hrs)
A non-technical introduction to federal and state tax laws applicable to small business owners. Reportable income, business deductions, tax credits and tax-saving strategies.

SMBU 9419. Developing a Business Plan (12 hrs)
Basic information on the initial planning process for a successful start-up and management of a new business.

SMBU 9421. Successful Sales (3 hrs)
An overview of successful sales techniques including: telemarketing, tracking sales prospects, sales presentations, and successful closings.

SMBU 9423. Restaurant Entrepreneurship (12 hrs)
Challenges facing the food service operator. Marketing, menu concepts, providing consistent service and product, staff training, planning for profit.

SMBU 9429. Bid Preparation for Government Contracts (3 hrs)
How to process and submit procurement contact bids to the federal, state and city government purchasing offices.

SMBU 9436. Buying a Business (3 hrs)
A discussion of the basic steps involved in the purchase of a business: evaluation of the merits of the business, determination of purchase price and financing of purchase.

SMBU 9437. Keeping Score on Your Business (6 hrs)
Identification of the strengths and weaknesses of a small business through ratio analysis, income-expense and balance sheet comparisons from statements and tax returns. Development of systems to pinpoint problems and identify necessary corrective actions.
SMBU 9439. Selling a Business (3 hrs)
Preparation of a business for sale to gain the most benefits while being fair to the buyers. Pricing the business, negotiating, understanding offers and counter-offers, and the escrow process.

SMBU 9440. Entrepreneur’s Round Table (3 hrs)
Advisors: ABE 2074, 2075 or equivalent
An on-going series of seminars/workshops for small business owners. Access to resources, procurement of bank loans, marketing, manufacturing, finance and human relations. Seminars/workshops will be based on participant interchange and the development of practical solutions to specific problems.

SMBU 9447. Business Laws for Small Businesses (3 hrs)
An overview of business law designed to acquaint the small business operator with the law. Employment, contracts, negotiable instruments and methods of obtaining legal advice.

SMBU 9448. Purchasing Products and Services (3 hrs)
Learn how to locate the suppliers of goods and services for your new or established business. Also discussed are alternate sources planning, saving money on purchase orders and delivery costs, and dealing with vendors.

SMBU 9449. Staffing Your Business (90 hrs)
A practical course in determining staffing needs, developing effective hiring procedures, establishing employee and business policies, and training and motivating employees.

SMBU 9450. Effective Advertising (3 hrs)
Development of advertising skills for the small business operator. Budget, selection of medium, motivation, use of color, the copy and follow-up.

SMBU 9451. Business Licenses and Permits (3 hrs)
An overview of the various licenses and permits required to operate a small business.

SMBU 9452. Supervising Employees (3 hrs)
Development and improvement of management skills. Various management techniques that focus on employee needs, and how they can be used in supervising and motivating employees.

SMBU 9453. Business Communication (3 hrs)
Emphasis on improving communication skills. Importance of communications in business, effective listening, effective questioning, summarizing techniques, and presentation skills.

SMBU 9454. Getting Government Business (3 hrs)
An overview of the process of selling goods and services to the government, including the various types of procurement, proposal submittal, content of proposals, requirements, and implementation.

SMBU 9461. Retail Management (3 hrs)
An overview of the retail business and management decisions affecting it. Management functions to be covered include: location of the business, credit, advertising, personnel, record keeping, retailing methods, and financing.

SMBU 9462. Marketing Analysis (3 hrs)
An overview of the material needed to make intelligent marketing decisions. Prepares the student to put together a marketing program.

SMBU 9463. The Telephone as a Sales Tool (3 hrs)
Phone answering techniques to gain customers and increase sales.

SMBU 9464. Designing a Financial Future (12 hrs)
A non-technical use-oriented course in designing your personal financial plan making rational investment decisions and instilling appropriate tax planning strategies.

SMBU 9465. Small Business Insurance (3 hrs)
A comprehensive examination of property and casualty insurance applications relating to small business. Coverage required by law.

SMBU 9466. Employer/Employee Rights (3 hrs)
An overview of the rights and responsibilities of employers and employees, and a discussion of the laws pertaining to this relationship.

SMBU 9467. Getting Started in Business (18 hrs)
An overview of the requirements for a successful new business: organizing a business, choosing the right location, leasing, scheduling the opening, getting necessary permits, licenses and insurance, equipping and stocking, and record keeping.

SMBU 9468. Employee Training (3 hrs)
A discussion on employee training programs for the small business. An overview of cost effectiveness, in house training vs. outside training.

SMBU 9469. Controlling Your Inventory (3 hrs)
An overview of the impact of inventory on the profitability of a small business. Advantages of inventory control in terms of profits and space needs.

SMBU 9470. Marketing Strategy (3 hrs)
Introduction to marketing strategy. An overview of the objectives and components necessary to design a strategy to meet the needs of the small business.

SMBU 9471. Pricing a Product or Service (3 hrs)
A broad discussion of the factors affecting pricing including government regulations and specific pricing policies established by manufacturers, wholesalers, retailers and the service industry.

SMBU 9772. Finding the Right Location (3 hrs)
Discussion of the considerations that should be made to insure the selection of the optimal business location. Size requirements, neighborhood demographics, availability of services, codes and zoning regulations and competition.

SMBU 9774. Selling and Sales Management (3 hrs)
An overview of successful sales techniques for small business operators. Sourcing necessary information, making appointments, making the presentation, closing the sale, and following up.

SMBU 9775. Business Planning (6 hrs)
For pre-business and new business owners. Basic information on the initial planning process for a successful start-up and management of a new business.

SMBU 9776. Record Keeping (3 hrs)
A practical course which evaluates the necessity of setting up and maintaining an effective system of records for a small business. Examination of the different systems and methods of organizing data.

SMBU 9777. Buying a Business (6 hrs)
Basic steps involved in the purchase of a business: Evaluation of the merits of the business, determination of purchase price, and financing of purchase.
SMBU 9778. Franchise Business Basics (3 hrs)
An introduction to franchising for pre-business entrepreneurs who want to investigate, start-up, and prepare a franchise marketing business loan proposal for a major franchise or corporation. An overview of the requirements and trends of franchising.

SMBU 9779. Understand Your Lease (3 hrs)
Practical and key aspects of a small business lease. Examination of the leasing process from the search for a location through termination of the leasing relationship.

SMBU 9780. Drug Abuse in the Workplace (3 hrs)
What employers and supervisors need to know in order to establish and maintain a drug-free workplace. Setting policy, establishing a drug-free awareness program, identifying potential problems, methods of screening, employee assistance programs, treatment referral, reentry after treatment, confidentiality issues.

SMBU 9781. Legal Structure for a Business (3 hrs)
An evaluation of each of the legal structures a business can assume. Corporations, partnerships, sole proprietorships, the process of incorporation.

SMBU 9782. Home Based Business (3 hrs)
A practical overview of operating a home-based business. Licenses and permits, equipment, procedures, and commonly encountered problems.

SMBU 9783. Getting the Right Loan (3 hrs)
Fundamentals in identification and evaluation of the various types of loans available to small businesses, and a discussion of alternative sources of funding.

SMBU 9784. Finance for Small Business (3 hrs)
Examination of the initial and on-going financial needs of a small business, with attention to basic financial analysis, statements, ratios, and trends.

SMBU 9785. Contract Administration (3 hrs)
An introduction to the processes of contract administration.

SMBU 9789. Introduction to Franchising (3 hrs)
An overview of the nature and scope of franchising.

SMBU 9791. Introduction to Finance (3 hrs)
An introduction to the vocabulary, concepts, and principles of finance as they relate to the operation of a small business.

SMBU 9792. Introduction to Management (3 hrs)
An introduction to the vocabulary, concepts, and principles of management as they relate to the operation of a small business.

SMBU. 9793. Introduction to Marketing (3 hrs)
An introduction to the vocabulary, concepts, and principles of marketing as they relate to the operation of a small business.

SMBU 9794. Wholesaling (3 hrs)
An overview of wholesaling and its functions for the small business operator. Buying, selling, transportation, storage and financing.

SMBU 9795. Retailing (3 hrs)
An overview of all forms of selling goods and services to the consumer. Location, merchandise, credit, personnel, financing and controls.

SMBU 9796. Profiting from Financial Statements (3 hrs)
An introduction to basic financial analysis through the study of financial statements, ratios, and trend recognition.

**Supervision and Business Management**

**CREDIT, DEGREE APPLICABLE COURSES:**

SUPV 221A. Introduction to Supervision/Management (1.5)
Lec-3 (8 wks)
Introductory course covering the nature of supervision and management; basic management theories; leadership styles; history of supervision/management; responsibilities of a supervisor, such as planning, recruiting, training, evaluation; management-employee relations; discipline/reward; grievances; decision-making; communications; motivation; time management; stress management; employee safety; supervising protected groups;和其他 issues and trends in supervision/management. CSU

SUPV 222A. Communication for Supervisors (1.5)
Lec-3 (8 wks)
Instruction and practice in effective speaking, listening, and writing in supervisory situations; kinds of supervisory communications; oral and written tools for supervisors; nonverbal communication; listening as a communication skill; basic English language requirements; understanding what is communicated (intent and effect). CSU

SUPV 223A. Organizational Behavior for Supervisors (1.5)
Lec-3 (8 wks)
Basic concepts and principles of human behavior in organizations, including application of motivational theory, group dynamics, managing change, leadership styles, training and organizational development. CSU

SUPV 224A. Human Resources Management (1.5)
Lec-3 (8 wks)
Contemporary and historical human resources management principles and techniques for which the supervisor is responsible, including new hires, selection and placement, job standards and delegation, employee development and career management, discipline, labor relations, Equal Employment Opportunity/Affirmative Action, and employment law. CSU

SUPV 226A. Advanced Communication for Supervisors (1.5)
Lec-3 (8 wks)
Advanced principles of effective communication in business meetings and conferences, application through role playing practice in conducting simulated meetings. CSU

SUPV 227A. Special Problems in Supervision (1.5)
Lec-3 (9 wks)
Special management problems for supervisors: sexual harassment, discrimination, AIDS and retraining, nepotism, recruiting women and minorities, leave transfers/donors, and government regulations affecting these problems. CSU
SUPV 231. Introduction to Supervision/Management (3)
Lec-3
Basics of supervision and management including planning, organizing, recruiting, training, decision-making, communication, management/employee relations, motivation, discipline, rewards/incentives, and grievances. Time and stress management for the manager; speaking, listening, writing, and nonverbal communication. CSU

SUPV 232. Organizational Behavior for Supervisors (3)
Lec-3
Basic concepts and principles of human behavior in organizations, including application of motivational theory, group dynamics, managing change, leadership styles, training and organizational development. CSU

SUPV 233. Human Resources Management (3)
Lec-3
Human resources management principles and techniques including recruiting, job performance, employee development, career management, discipline, labor relations, and employment law; also sexual harassment, health issues in the workplace, discrimination, Americans with Disabilities Act, downsizing, managing a diverse workforce, and governmental regulations. CSU

SUPV 234. Communication for Business Management (3)
Lec-3
Concepts, strategies and models that help students improve their interpersonal communication skills—writing, making presentations and speeches, working in teams and negotiating outcomes. The processes students learn can be applied to oral and written communications in their business and personal lives. Concepts and models designed to improve communication with people from all cultures and enhance management and leadership of diversified teams. The tactics and strategies learned will improve communication in a way that ethically influences others to achieve desired results. CSU

NONCREDIT COURSES:

SUMA 9412. The Supervisor in Management (18 hrs)
Advised: ESLN 3500 and ABE 2074
Position of supervisor in the management structure. Skills needed, functions of planning, organizing, staffing, directing, and controlling, communicating, motivating, decision-making, priority setting and time management.

SUMA 9413. Personnel Management (18 hrs)
Advised: ESLN 3500 and ABE 2074
Personnel responsibilities of line supervisors. Selection and training of employees, motivating, dealing with problem employees, group dynamics, leadership, and working with unions and protected groups.

SUMA 9414. Human Relations (18 hrs)
Advised: ESLN 3500 and ABE 2074
Interpersonal and organizational behavior in work situations. Organizational psychology and intergroup relations, the individual in the group, theories of motivation, communication, management philosophy, and leadership styles.

SUMA 9415. Business and Government (18 hrs)
Interaction of business and government. Serving the public through provision of goods and services and employment; planning; regulating; executive, legislative, and judicial functions; international aspects; ethics and responsibility; comparison of business and public management.

SUMA 9416. Administrative Management Methods (18 hrs)
Advised: ESLN 3500; ABE 2074
Overview of office management and administrative management methods. Principles, practices, and tools that link office activities into a coherent system; office automation; data processing; records management; and personnel responsibilities of the office manager.

SUMA 9417. Affirmative Action and Opportunity (18 hrs)
Advised: ESLN 3500; ABE 2074

SUMA 9418. Women in Management (18 hrs)
Advised: ESLN 3500; ABE 2074
Situational study of the managerial woman. Social, legal, and economic factors that caused inequality, and programs for change; selecting and assessing women for management positions; cultural bias and sex role stereotypes; motivation and preparation for success in management.

SUMA 9419. Business Law
The legal system as a resource for business and for the public. Topics include the law of contracts, business organization, agency, recognition of a legal situation, commercial law, labor law, civil and criminal law, and the attorney-client relationship.

SUMA 9422. Management by Objectives (18 hrs)
Advised: ESLN 3500; ABE 2074
Development of skill in using objectives to set priorities and to plan, organize, staff, direct, and control work programs. Delegating responsibility, communicating, motivating employees, coaching and counseling, and evaluating performance.

SUMA 9423. Developing and Appraising Staff (18 hrs)
Advised: ESLN 3500; ABE 2074
Methods for training, developing, and evaluating employees. Job analysis and description, written performance standards, motivation, communication, performance appraisal, and counseling.

SUMA 9424. Time and Methods Management (18 hrs)
Advised: ESLN 3500; ABE 2074
Techniques for effective time and caseload management and methods improvement. Scheduling, planning, setting priorities, delegating, handling interruptions and crises, improving work methods, communicating, training, and enhancing teamwork for effective use of time.

SUMA 9425. Decision-Making (18 hrs)
Advised: ESLN 3500; ABE 2074
Decision-making and problem-solving as an integral part of managing. Analytical tools and skills useful for individual and group decision-making; psychology and sociology of the decision process; techniques and action procedures; and strategies for problem-solving and for implementing decisions.
SUMA 9426. Organizational Leadership (18 hrs)
Advising: ESLN 3500; ABE 2074
Leadership as an influence process for accomplishing organizational goals. The leader viewed as cheerleader, enthusiast, nurturer, coach, and facilitator; the power base; the philosophy of leadership; leadership styles; task and people orientation; and situational leadership.

SUMA 9427. Employee/Management Relations (18 hrs)
Advising: ESLN 3500; ABE 2074
Employee-management relations in the work environment. Attitudes, status, morale; managing human resources; complaints and grievances; discipline; union-management relations; participation; improving productivity; and team-building.

SUMA 9429. Team-Building (18 hrs)
Advising: ESLN 3500; ABE 2074
Functioning of teams within the overall organization. Establishing team objectives, team spirit, major blockages, utilization of problem-solving to increase team effectiveness, role clarification, assertiveness, conflict resolution, leveling, and techniques of team-building.

SUMA 9433. Training and Developing Employees (18 hrs)
Advising: ESLN 3500; ABE 2074
Supervisory responsibilities in regard to employee career development. Job instruction training (JIT), principles of learning, training methodologies, coaching, counseling, and evaluating employee performance in training situations.

SUMA 9434. Budgeting and Control (18 hrs)
Advising: ESLN 3500; ABE 2074
Budgetary planning and executive controls as tools for management. Program budgeting, cost accounting, fiscal management, revenue planning and expense control, line-item and zero-base budgeting, program appraisal and decision-making.

SUMA 9435. Public Budgeting and Finance (18 hrs)
Advising: ESLN 3500; ABE 2074
An overview of government budgeting and revenue planning. Concepts of fiscal management, the impact of budget and finance on social goals and expectations, trends in public finance, and preparation of a budget work program with supporting explanations.

SUMA 9436. Briefing and Presenting Reports (18 hrs)
Advising: ESLN 3500; ABE 2074
Skills for giving effective briefings and oral presentations. Reducing public speaking anxieties, relaxation, identifying audience, gathering facts, organizing material, using visual aids, voice exercises, nonverbal communication, delivery, and audience questions.

SUMA 9438. Reports, Memos, and Letters (18 hrs)
Advising: ESLN 3500; ABE 2074
Approaches for writing well-organized and suitable reports, memos, and letters. Planning, organizing, and presenting ideas clearly and convincingly; effective writing techniques; review of writing styles; visually attractive layouts; problems of grammar and punctuation; clear and concise writing style; and proofreading and editing.

SUMA 9440. Improving Public Contact (18 hrs)
Advising: ESLN 3500; ABE 2074
Application of concepts of communication and interpersonal relations to contacts with the public. Organization-client relationship; public relations; win-win situations for the organization, employees, and customers; improving individual service and maintaining friendly customer relations; dealing with "problem-type" individuals; winning friends by telephone; contacts in the field; press and community relations.

SUMA 9441. Stress Management and Well-Being (18 hrs)
Advising: ESLN 3500; ABE 2074
Strategies for managing stress and preventing job burnout. Identifying stressors in personal and professional areas, self-evaluation, sources of job burnout, practicing relaxation, relation of stress to health, and stress management practices.

SUMA 9442. Assertiveness and Conflict (18 hrs)
Advising: ESLN 3500; ABE 2074
Improvement of ability of supervisory personnel to cope verbally with others. Increasing self-esteem, reducing anxiety, handling conflict; using individual differences, concepts of assertiveness, aggressiveness, and submission; expression of feelings.

SUMA 9443. Interpersonal Communication (18 hrs)
Advising: ESLN 3500; ABE 2074
Interpersonal skills for communicating effectively. Process of interpersonal communication; effective listening and responding; self-expression; feedback; non-verbal communication and meanings; barriers and bridges; leveling; Johari window applications; establishing and building rapport.

SUMA 9447. Pre-Retirement Planning (18 hrs)
Advising: ESLN 3500; ABE 2074
Overview of planning for retirement and for second careers. Psychology and attitude for retirement, maintaining health, housing needs, traveling, financial planning, legal aspects, real estate, insurance, pension options, social security, Medicare, and launching second careers.

SUMA 9452. Performance Test Skills for Business (18 hrs)
Advising: ESLN 3500; ABE 2074
Enhancement of skills utilized in written and oral performance tests. Selection process, application, examination format and strategies.

SUMA 9453. Accounting Concepts (18 hrs)
Advising: ESLN 3500; ABE 2074
Basic principles of accounting as the language of business. Double-entry bookkeeping, recording through summarization, debits and credits, journals and ledgers, income statements, balance sheets, sources and uses of funds, and financial reports.

SUMA 9454. Business Functions (18 hrs)
Elements of business administration, with case studies. Forms of business organization; people and capital as business resources; production, materials, and personnel management; marketing and advertising; finance and accounting; computer-based systems; and trends in business.

SUMA 9462. Conducting Meetings (18 hrs)
Advising: ESLN 3500; ABE 2074
Development of skills in planning and facilitating meetings, problem-solving, making presentations, group process analysis, and communication.
SUMA 9473. Management Seminar (18 hrs)
Advisory: ESLN 3500; ABE 2074
Objectives, goals, policies, and approaches used in organizations for carrying out missions. Styles of leadership, establishing objectives, organizing for administration, planning and controlling activities, human relations and organizational behavior. Various topics may be emphasized by arrangement.

SUMA 9477. Business Law (18 hrs)
Advisory: ESLN 3500; ABE 2074
Overview of the legal system as a resource for business and for the public. Law of contracts, business organization, agency, recognition of a legal situation, commercial law, labor law, civil and criminal law, and the attorney-client relationship.

SUMA 9478. Role of the Supervisor (18 hrs)
Advisory: ESLN 3500; ABE 2074
Overview of basic principles and problems of supervision. Management styles, effective communication, motivation, participation, decision-making, time management, delegation, and performance evaluation.

SUMA 9479. Management Practices (18 hrs)
Advisory: ESLN 3500; ABE 2074
Selected management concepts that enhance effectiveness. Assuming leadership of workgroups, recognizing organizational culture, handling group crises, setting priorities, delegating, managing time, conducting productive meetings, maintaining a safe and healthful environment, team-building, and organizational ethics and politics.

SUMA 9481. Economics (18 hrs)
Advisory: ESLN 3500; ABE 2074
An overview of micro and macro economics. Micro topics include concepts of supply and demand, cost and revenue, theories of profit. Macro topics include concepts of consumption and saving, employment, investment, money and banking, and international trade.

SUMA 9482. Finance (18 hrs)
Advisory: ESLN 3500; ABE 2074
An overview of finance as a basic function of management in business and government. Capital formation, financial institutions and instruments, sources of working capital, sources of long term capital, money and banking, interest and dividends as returns on investments, and theories of profit.

SUMA 9483. Managerial Accounting (18 hrs)
Advisory: ESLN 3500; ABE 2074
Overview of applications of accounting in business and government. Management information systems, quality audits, receipt and disbursement of funds, purchases and sales, payroll accounting, reports and analyses for financial institutions and for the public, and quantitative data for management planning and control.

SUMA 9484. Marketing (18 hrs)
Advisory: ESLN 3500; ABE 2074
An overview of marketing as distribution of goods and services. Marketing environment, identifying consumer needs, product strategy, channels of distribution, wholesaler, retailer, sales promotion, advertising, personal selling, pricing strategy, and international marketing.

SUMA 9485. U.S. Business and Organizations (27 hrs)
Overview of American business and non-profit organizations/operations. Insight into all aspects of an organization: management, information systems, operations, human resources, finance, marketing - as well as corporate culture, protocol, and career options.

Total Quality Management
See Engineering and Technology listings.

Travel and Tourism

CREDIT, DEGREE APPLICABLE COURSES:

TRTV 157. Principles of Travel and Tourism (3)
Lec-3
An overview of the components and satellite industries that make up the business of Travel and Tourism: airlines, hotels and resorts, ground transportation, bus, rail, cruise lines, tour companies, etc. Emphasis on the specific and basic terminology of the industry, on researching the development of a destination, packaging and then selling it. Designed to give the student the basics for all components of the industry. CSU

TRTV 159. Advanced Principles of Travel and Tourism (3)
Lec-3
Methods of developing a travel destination, advertising and selling that destination; dynamics of tourism sales and marketing concepts including wholesale and retailing practices of the travel industry. CSU

TRTV 160. Transportation Field Work (1)
Work-5
CR/NC only
Advisory: Consent of the Travel and Tourism program advisor
Repeat: max. 2 units
On the job laboratory training in customer service with airlines, travel agencies, and other passenger service companies. Placement of students is determined according to cooperating firm's requirements. CSU

TRTV 161. Transportation Field Work (2)
Work-10
CR/NC only
Advisory: Consent of the Travel and Tourism program advisor
Repeat: max. 4 units
On the job laboratory training in customer service with airlines, travel agencies, and other passenger service companies. Placement of students is determined according to cooperating firm's requirements. CSU

TRTV 162. Destination: Europe (3)
Lec-3
An introduction (from the travel and tourism perspective) to the countries of Europe: their location, languages spoken, religions practiced, holidays observed, culture(s), time zones, topography, points of tourist interest, documentation required, and ease of travel between countries. Also included are the hotels and resorts of the area, the transportation systems that serve it, and the development of typical itineraries for the region. CSU
TRTV 164. Destination: The South Pacific, the World’s Islands and Antarctica (3)
Lec-3
An introduction (from the travel and tourism perspective) to the South Pacific, the world’s islands, and Antarctica: the locations, languages spoken, religions practiced, holidays observed, cultures, time zones, topography, points of touristic interest, documentation required, and ease of travel between political partitions of the regions. Also included are the hotels and resorts of the area, the transportation systems that serve it, and the development of typical itineraries for the regions. CSU

TRTV 165. Destination: The United States and Canada (3)
Lec-3
An introduction (from the travel and tourism perspective) to the United States and Canada: the locations, languages spoken, religions practiced, holidays observed, cultures, time zones, topography, points of touristic interest, documentation required, and ease of non-citizens traveling between the countries. Also included are the hotels and resorts of the area, the transportation systems that serve it, and the development of typical itineraries for the regions. CSU

TRTV 166. Destination: Asia (3)
Lec-3
An introduction (from the travel and tourism perspective) to the countries of Asia: their locations, languages spoken, religions practiced, holidays observed, cultures, time zones, topography, points of touristic interest, documentation required, and ease of travel between the countries. Also included are the hotels and resorts of the area, the transportation systems that serve it, and the development of typical itineraries for the regions. CSU

TRTV 168. Destination: Africa and the Middle East (3)
Lec-3
An introduction (from the travel and tourism perspective) to the countries of Africa and the Middle East: their locations, languages spoken, religions practiced, holidays observed, cultures, time zones, topography, points of touristic interest, documentation required, and ease of travel between the countries. Also included are the hotels and resorts of the area, the transportation systems that serve it, and the development of typical itineraries for the regions. CSU

TRTV 170. Destination: Central America, South America, and Mexico (3)
Lec-3
An introduction (from the travel and tourism perspective) to Mexico and the countries of Central and South America: their locations, languages spoken, religions practiced, holidays observed, cultures, time zones, topography, points of touristic interest, documentation required, and ease of travel between the countries. Also included are the hotels and resorts of the area, the transportation systems that serve it, and the development of typical itineraries for the regions. CSU

Work Experience

CREDIT, DEGREE APPLICABLE COURSES:

WKEX 197. Work Experience (3)
Work-15
CR/NC only
PreReq.: Students must be concurrently enrolled in at least seven semester units, including this course, and working in their major field
Repeat: max. 6 units
This course involves student work experience with cooperating employers. Students should be aware that the course content and methodology may vary semester to semester. However, a minimum of one orientation lecture, two work site contacts by the instructor, and two semester conferences between instructor and student are required. CSU

WKEX 301. General Career Work Experience (1)
Work-5
CR/NC only
PreReq.: Approval of the employer. Students must enroll for at least six semester units in addition to this course. Students may not enroll in this course if they are enrolled in another Work Experience course.
Repeat: max. 6 units
An orientation to the world of work and a solid foundation for career planning, using the resources of both the College and the employer. Designed for the student who may not yet have selected a specific occupational goal, but who is presently employed. CSU

WKEX 302. General Career Work Experience (2)
Work-10
CR/NC only
PreReq.: Approval of the employer. Students must enroll for at least five semester units in addition to this course. Students may not enroll in this course if they are enrolled in another Work Experience course.
Repeat: max. 6 units
An orientation to the world of work and a solid foundation for career planning, using the resources of both the College and the employer. Designed for the student who may not yet have selected a specific occupational goal, but who is presently employed. CSU

WKEX 303. General Career Work Experience (3)
Work-15
CR/NC only
PreReq.: Approval of the employer. Students must enroll for at least four semester units in addition to this course. Students may not enroll in this course if they are enrolled in another Work Experience course.
Repeat: max. 6 units
An orientation to the world of work and a solid foundation for career planning, using the resources of both the College and the employer. Designed for the student who may not yet have selected a specific occupational goal, but who is presently employed. CSU

Word Processing

See course listings under Office Technology in this section of the catalog.
WKEX 805. Work Experience (1)
Work-5  CR/NC only
PREQ.: ARRANGEMENT WITH THE COURSE INSTRUCTOR
AND THE INSTRUCTOR OR ADMINISTRATOR FOR WHOM THE
STUDENT WORKS. STUDENTS MUST ENROLL FOR AT LEAST
SIX SEMESTER UNITS IN ADDITION TO THIS COURSE.
STUDENTS MAY NOT ENROLL IN ANOTHER WORK
EXPERIENCE COURSE AT THE SAME TIME.
Repeat: combination WKEX 805, 806, 807 max. 6 units
Designed to introduce students to the world of work: punctuality,
personal appearance, direction taking, job completion and work-
place diplomacy. The content of this course varies.

WKEX 806. Work Experience (2)
Work-10  CR/NC only
PREQ.: ARRANGEMENT WITH THE INSTRUCTOR AND THE
DEPARTMENT WORK EXPERIENCE COORDINATOR. STUDENTS
MUST ENROLL FOR AT LEAST FIVE SEMESTER UNITS IN
ADDITION TO THIS COURSE. STUDENTS MAY NOT ENROLL IN
THIS COURSE IF THEY ARE ENROLLED IN ANOTHER WORK
EXPERIENCE COURSE AT THE SAME TIME.
Repeat: combination WKEX 805, 806, 807 max. 6 units
Designed to introduce students to the world of work: punctuality,
personal appearance, direction taking, job completion and work-
place diplomacy. The content of this course varies.

WKEX 807. Work Experience (3)
Work-15  CR/NC only
PREQ.: ARRANGEMENT WITH THE INSTRUCTOR AND THE
DEPARTMENT WORK EXPERIENCE COORDINATOR. STUDENTS
MUST ENROLL FOR AT LEAST FOUR SEMESTER UNITS IN
ADDITION TO THIS COURSE. STUDENTS MAY NOT ENROLL IN
THIS COURSE IF THEY ARE ENROLLED IN ANOTHER WORK
EXPERIENCE COURSE AT THE SAME TIME.
Repeat: combination WKEX 805, 806, 807 max. 6 units
Designed to introduce students to the world of work: punctuality,
personal appearance, direction taking, job completion and work-
place diplomacy. The content of this course varies.

CHEM E. Organic Problem-Solving Methods I (1)
Conf-1.5  CR/NC only
COREQ.: CHEM 212A
Recommended as a supplement to be taken concurrently with
CHEM 212A for students who need additional help.
Illustration and discussion of problem-solving methods in CHEM
212A.

CHEM F. Organic Problem-Solving Methods II (1)
Conf-1.5  CR/NC only
COREQ.: CHEM 212B
Recommended as a supplement to be taken concurrently with
CHEM 212B for students who need additional help.
Illustration and discussion of problem-solving methods in CHEM
212B.

CREDIT, DEGREE APPLICABLE COURSES:

CHEM 17. Problem-Solving Methods (3)
Lec-3
PREQ.: COMPLETION/CONCURRENT ENROLLMENT IN
MATH 540, OR PLACEMENT IN MATH 560 OR HIGHER
The normal progression is from CHEM 17 to CHEM 40. Students
who have completed CHEM 40, 101A, or 103A may not receive
credit for CHEM 17.
Problem-solving, with emphasis on the how and why of solving
problems. Useful for all areas where quantitative reasoning is
needed. Designed for the student who knows how to perform
various mathematical operations but who has difficulty in setting up
problems for solution. Most problems assigned in this course have
some basis in commonly known or easily learned aspects of the
physical sciences. CSU

CHEM 32. Introduction to Medical Chemistry (4)
Lec-3, lab-3  CR/NC avail.
Open to all students. No previous chemistry or physics required. Satis-
ifies the requirements of nursing and related majors that require
one semester of chemistry. Also satisfies the recommended prerequi-
site for PHYS 12 and M B 12. Students taking a major that requires
two semesters of chemistry should enroll in the CHEM 33 after com-
pleting CHEM 32. Students preparing to enroll in CHEM 101A or
103A should enroll in CHEM 40.
Basic concepts of inorganic and organic chemistry, biochemistry,
and physics as they apply to the chemistry and physics of the
human body. CSU
Formerly CHEM 30+31

CHEM 33. Adv Medical Chemistry and Biotechnology (4)
Lec-4, lab-2
PREQ.: CHEM 32 OR CHEM 208A, OR CHEM 212A; AND
MATH 540 OR PLACEMENT IN A HIGHER LEVEL MATH
course
Advanced topics in general and biological chemistry, including
equilibrium processes, gene expression, DNA manipulation and
analysis, biochemical transformations, specialized biomolecules,
enzymes, metabolic pathways, and nuclear chemistry. CSU
CHEM 40. Introduction to Chemical Principles (4)
Lec-3, conf-1, lab-3
PREREQ.: HS ALGEBRA OR MATH 840 OR PLACEMENT IN MATH 860 OR HIGHER
Advising: Completion/concurrent enrollment in CHEM 17. Students may enroll in this course to remove a high school deficiency in chemistry. Designed to prepare the beginning student as well as to strengthen the re-entry student for CHEM 101A or 103A.
Students who take CHEM 40 will not receive credit if they have completed CHEM 101A or 103A within the previous three years.
Students who plan to enroll in CHEM 101A or 103A are advised to take MATH 860 concurrently.
An introductory study of the fundamental laws and concepts of classical and modern chemistry, including dimensional analysis, nomenclature, stoichiometry, gases, solutions and atomic and molecular structures. CSU/UC

CHEM 55. Ethical Issues in Science (3) fa
Lec-3, field trips
Principles of ethics and their application in scientific work. Issues to be considered include professional ethical standards, relationship of science to public policy, role of government regulations and rationale for scientific research. Case studies will be drawn from areas of current concern in biotechnology, genetic engineering, and other scientific fields. CSU
CHEM 55 = BIO 55

CHEM 65A. Introduction to GC-MS (0.5)
Lec-7, lab-6 (total hrs) CR/NC avail.
Principles and applications of gas chromatography and mass spectrometry, including the technique's growing use in biotechnology, qualitative analysis and identification of unknown compounds, quantitative analysis of solutes, and method development using a computer interface. CSU

CHEM 65B. Introduction to HPLC (0.5)
Lec-7, lab-6 (total hrs) CR/NC avail.
Principles and applications of HPLC, with a focus on uses in biotechnology, quantitative and qualitative analysis, and method development using a computer interface. CSU

CHEM 65C. Introduction to Capillary Electrophoresis (0.5)
Lec-7, lab-6 (total hrs) CR/NC avail.
Principles and practical applications of capillary electrophoresis, including biotechnology applications, qualitative analysis and identification of unknown compounds, quantitative analysis of solutes, and method development using a computer interface. CSU

CHEM 65D. Introduction to AA Spectroscopy (0.5)
Lec-7, lab-6 (total hrs) CR/NC avail.
Principles and practical applications of atomic absorption (AA) spectroscopy, including environmental analysis and identification of unknown elements, and quantitative analysis of elements and ions. CSU

CHEM 80-81-82-83. Selected Topics in Chemistry (0.5-1.2-3)
Lec-0.5, 1, 2, 3, field trips CR/NC avail.
Repeat: if no subject repeat
Investigation in depth of selected topics in chemistry, such as: considering current issues and innovations, expanding subjects covered briefly in introductory courses, exploring topics not studied in other classes in chemistry, or instruments newly available. CSU

CHEM 85. Seminar in Chemistry (1)
Lec-1.5 CR/NC avail.
Repeat: max. 4 units
Discussions on current research in chemistry, biochemistry, and related fields. Presentations on career opportunities for students studying chemistry, as well as on study strategies for chemistry courses. CSU

CHEM 90-91-92. Laboratory Projects in Chemistry (0.5-1-2)
Lab-1.5, 3, 6, field trips CR/NC avail.
Repeat: if no subject repeat
Investigation in depth of selected laboratory techniques in chemistry, such as: methods of analysis using instruments available at CCSF or elsewhere; computer modeling using research-quality software; or groups of experiments not part of the curriculum in a currently-offered chemistry course at CCSF. CSU

CHEM 101A. General College Chemistry (5)
Lec-4, lab-6
PREREQ.: CHEM 32, 40, OR 50, OR AN ADVANCED PLACEMENT TEST SCORE OF 3 OR HIGHER, OR PLACEMENT IN CHEM 101A/103A BY EXAMINATION AND ADVISING; AND MATH 860 OR PLACEMENT IN ANY MATH COURSE HIGHER THAN MATH 860
Students who are majoring in engineering, except chemical engineering, should enroll in CHEM 103A.
CHEM 101A-101B are the standard college courses required in many curricula. CHEM 101A may be substituted for CHEM 103A.
Students who have passed CHEM 103A may not receive credit for CHEM 101A.
Stoichiometry, solubility, solutions, gas behavior, thermochromy, atomic structure, periodic table, chemical bonding, molecular structure, solids and liquids, and an introduction to chemical equilibrium. CSU/UC/CAN

CHEM 101B. General College Chemistry (5)
Lec-3, lab-6
PREREQ.: CHEM 101A OR 103A
Chemical kinetics, applications of aqueous equilibrium, chemical thermodynamics, oxidation and reduction, electrochemistry, symmetry, crystal structures and solid state chemistry, transition metal ions, descriptive chemistry of selected elements, and introduction to organic chemistry. CSU/UC/CAN

CHEM 103A. General Chemistry for Engineering (4)
Lec-4, lab-3
PREREQ.: CHEM 32, 40, OR 50, OR AN ADVANCED PLACEMENT TEST SCORE OF 3 OR HIGHER, OR PLACEMENT IN CHEM 101A/103A BY EXAMINATION AND ADVISING; AND MATH 860 OR PLACEMENT IN ANY MATH COURSE HIGHER THAN MATH 860
Designed for students majoring in all engineering programs except chemical engineering. Students who have passed CHEM 101A may not receive credit for CHEM 103A.
Stoichiometry, gas behavior, solution properties and reactions, thermochemistry, atomic structure and bonding, properties of solids and liquids, special projects. CSU/UC
CHEM 107. Computers in Chemistry (2) sp
Lec-1, lab-3
Prereq.: Completion/Concurrent Enrollment in CHEM 101A or 103A
Spreadsheet programs and the BASIC programming language will be used as tools for problem solving, calculations, graphing and visual presentation of chemical data. Students will also use mathematical utilities programs in chemical settings. All projects utilize the principles taught in general chemistry. No prior computer experience is required. CSU/UC

CHEM 110. Chemistry for Nonscientists (3)
Lec-3, field trips CR/NC avail.
Open to all students except those who have completed CHEM 101A, 103A, or more advanced courses.
A non-mathematical presentation of chemical principles with emphasis on their relevance to modern life. Designed for non-science majors. CSU/UC

CHEM 110L. Laboratory for Nonscientists (1)
Lab-3 CR/NC avail.
Prereq.: Completion/Concurrent Enrollment in CHEM 110
Laboratory practice in modern and commonly used chemical techniques. CSU/UC

CHEM 205. Quantitative Analysis (4)
Lec-2, lab-6
Prereq.: CHEM 101B
Recommended that CHEM 205 be taken soon after CHEM 101B
The fundamentals of quantitative analysis. Solubility, acid-base, redox, complex formation equilibria and their applications in volumetric and gravimetric analysis. Selected topics in instrumental analysis. CSU/UC/CAN

CHEM 208A. Organic Chemistry (4)
Lec-3, lab-3
Prereq.: CHEM 101A or 103A
Students who have passed CHEM 212A may not receive credit for CHEM 208A.
The first semester of a one-year course in organic chemistry for students not majoring in chemistry or biochemistry. CHEM 208A/208B is designed for students majoring in the life sciences, including pre-medical students. CSU/UC

CHEM 208B. Organic Chemistry (4)
Lec-3, lab-3
Prereq.: CHEM 208A or 212A
Students who have passed CHEM 212B may not receive credit for CHEM 208B.
The continuation of CHEM 208A. CSU/UC

CHEM 212A. Organic Chemistry (5)
Lec-4, lab-6
Prereq.: CHEM 101B
Students who have passed CHEM 208A may not receive credit for CHEM 212A. CHEM 212A may be substituted for CHEM 208A.
The first semester of a one-year course in organic chemistry for students who major in chemistry, biochemistry, or other sciences. CHEM 212A/212B also satisfies the organic chemistry requirements of medical schools. CSU/UC

CHEM 212B. Organic Chemistry (5)
Lec-4, lab-6
Prereq.: CHEM 212A or 208A
Students who have passed CHEM 208B may not receive credit for CHEM 212B. CHEM 212B may be substituted for CHEM 208B.
The continuation of CHEM 212A. CSU/UC

Child Development and Family Studies

Announcement of Curricula

Child Development

Admission. Enrollment is open to all students interested in working with children in Early Childhood Programs.

Associate of Arts Degree and Award of Achievement. The Child Development Program is designed so that students may satisfy the requirements for graduation from the College. Students who satisfy these requirements and complete the required courses with an average final grade of C (2.00 grade point average) or higher receive the Award of Achievement in Child Development.

For students interested in the Associate of Arts Degree and Award of Achievement (in Child Development) from City College, the requirements are as follows:

12 units of the CORE courses (with a grade of C or better):  
- CDEV 65 Introduction to Early Childhood Programs  
- CDEV 67 Child, Family, and Community  
- CDEV 53 Child Growth & Development  
- CDEV 66 Introduction to EC Curriculum

18 units selected from any courses offered by the Child Development Program.

2 Units of Health 14, ADV. First Aid Emergency Care.

GENERAL EDUCATION REQUIREMENTS for graduation from City College as listed in this catalog.

The Degree curriculum requires a total of 60 semester units. After completing 30 units from the Child Development Department AND the 18-24 units of General Education Requirements, a student may enroll in any course (as elective) to total the 60 units for an A.A. Degree.

Child Development Certificate: Administration

A “Certificate of Completion” will be granted upon successful completion of the required number of units in course work. A grade of “C” or better is required in all certificate courses.

Course Units
CDEV 53 Child Growth and Develop 3
CDEV 65 Orientation to Early Childhood Prog 3
CDEV 66 Intro to Early Childhood Curr 3
CDEV 67 The Child, Family, and Community 3

Area of Specialization: Administration
CDEV 90 Early Childhood Admin I 3
CDEV 91 Early Childhood Admin II 3