

Accounting

Business & Computer Science Division

PROGRAM DESCRIPTION

In recent years, accounting has been one of the fastest growing professions, and the monetary rewards for the individual just entering the field and those achieving corporate positions are among the highest. Accountants deal with the financial condition of a company, an individual, or an organization. An accountant is an analyst who is employed because of expertise in financial matters.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 26-unit major with a grade of C (2.0) or better in each course. The Associate in Science Degree can be obtained by completing a total of 60 units, including the required courses in the major, the general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	
ACCT 001—Prin. of Acctng.—Financial	4	Recommended Electives: OCED 090, 091
ACCT 002—Prin. of Acctng.—Managerial	4	
ACCT 176—Intermediate Accounting	3	
ACCT 177—Prin. of Cost Accounting	3	
ACCT 183—Prin. of Income Tax	3	
CIS 050—Microcomputer Applications		
OR		
CIS 001—Intro. to Computer Science	3	
CIS 066—Microsoft Word		
OR		
CIS 063—WordPerfect	3	
CIS 073—Microsoft Excel	3	
	<u>26</u>	

JOB-DIRECT CERTIFICATE REQUIREMENTS

All courses must be completed with a grade of "C" or better.

Account Clerk

Required Courses	Units
BUS 100—Work Readiness	1.5
CIS 073 —Microsoft Excel	3
ACCT 180—Introduction to Accounting	3
OT 162—Ten Key	<u>1</u>
	8.5

Accounting

ACCT 001	4 Units	ACCT 177	3 Units
Principles of Accounting—Financial <i>Course Advisories: SCC minimum English and math standards; Working knowledge of Excel helpful.</i> A study and analysis of the accounting cycle, accruals and deferrals, inventory, receivables, plant assets, accounting systems, error correction, and financial reporting. <i>Four hours lecture.</i>		Principles of Cost Accounting <i>Prerequisite: ACCT 002 with a grade of “C” or “P” or better.</i> A comprehensive study and analysis of manufacturing costs as they apply to planning, controlling, and determining unit costs, inventory valuation, and income. <i>Three hours lecture.</i>	
ACCT 002	4 Units	ACCT 180	3 Units
Principles of Accounting—Managerial <i>Prerequisite: ACCT 001 with a grade of “C” or “P” or better. Course Advisory: Working knowledge of Excel helpful.</i> A study and analysis of the managerial accounting concepts and theory including the following: job order cost accounting; process cost accounting; departmental accounting; product analysis; pricing decisions; flexible budgeting; standard cost analysis; cost volume, profit analysis; preparation of operational, capital and financial budgets; analysis of financial reporting; and tax implications of managerial decisions. In addition, a study of corporate reporting, bonds and long-term liabilities, long-term investments, and reporting and analyzing cash flows. <i>Four hours lecture.</i>		Introduction to Accounting <i>Course Advisories: SCC minimum English and Math standards.</i> A study and analysis of the accounting cycle for a merchandising business and professional enterprises, payroll accounting, accruals and deferrals, accounting systems, error correction, and financial reporting. <i>Three hours lecture.</i>	
ACCT 176	3 Units	ACCT 183	3 Units
Intermediate Accounting <i>Prerequisite: ACCT 002 with a grade of “C” or “P” or better. Course Advisory: Working knowledge of Excel helpful.</i> Accounting theory as applied to common issues faced by accountants in today’s businesses. Lecture, group-study, and computer-based study emphasize the conceptual framework, the four major financial statements, footnotes, and present-value concepts. The class helps prepare the student for an entry-level position in professional accounting career. <i>Four hours lecture.</i>		Principles of Income Tax <i>Course Advisories: SCC minimum English and Math standards.</i> A comprehensive study and analysis of the principles of federal income tax applied to individual, partnership, informational, and corporate tax returns. <i>Three hours lecture.</i>	

PROGRAM DESCRIPTION

Practical and theoretical knowledge in basic maintenance techniques, plus the special requirements of either airframe or powerplant work. Upon satisfactory completion of the required courses, the student is eligible to take the Federal Aviation Administration written, oral and practical examination for airframe or powerplant license.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of one of the 41-unit majors listed below. An Associate in Science Degree can be obtained upon completion of the units required for the major in either Airframe or Powerplant or Airframe and Powerplant and general education requirements.

The Federal Aviation Administration (FAA) requires 1900 hours (four full semesters and one four week summer session) of instruction to complete the combination airframe and powerplant curriculum. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

AIRFRAME MAINTENANCE TECHNICIAN

REQUIRED COURSES

	Units	To obtain the combination Airframe & Powerplant Maintenance Technician certificate or degree, complete the three courses listed below:	Units
AERO 055— Aviation Maintenance Technician General I	10		
AERO 102—Airframe Maintenance I	10		
AERO 103—Aviation Maintenance Technician General II	10	AERO 106—Powerplant Maintenance I	10
AERO 105—Airframe Maintenance II	10	AERO 107—Powerplant Maintenance II	10
AERO 118—FAA Airframe Test Rev. & Qual.	<u>1</u>	AERO 119—FAA Powerplant Test Rev. & Qual.	<u>1</u>
	41		21

Recommended Electives:

AERO 110, 111, 112, 113, 150
OCED 090, 091

POWERPLANT MAINTENANCE TECHNICIAN

REQUIRED COURSES

	Units	To obtain the combination Airframe & Powerplant Maintenance Technician certificate or degree, complete the three courses listed below:	Units
AERO 055— Aviation Maintenance Technician General I	10		
AERO 103—Aviation Maintenance Technician General II	10		
AERO 106—Powerplant Maintenance I	10	AERO 102—Airframe Maintenance I	10
AERO 107—Powerplant Maintenance II	10	AERO 105—Airframe Maintenance II	10
AERO 119—FAA Powerplant Test Rev. and Qual.	<u>1</u>	AERO 118—FAA Airframe Test Rev. & Qual.	<u>1</u>
	41		21

Recommended Electives :

AERO 110, 111, 112, 113, 150
OCCED 090, 091

Aeronautics

AVIONICS TECHNICIAN

PROGRAM DESCRIPTION

This program prepares students to work in the Avionics field as a technician skilled in the installation, troubleshooting, removal and repair of all cockpit instruments which includes: airborne communications, navigation, and identification systems; automatic flight control systems; head-up displays; airborne weapons and reconnaissance systems; air traffic control systems, including communications, displays and surveillance systems; ground radar systems, including those for early warning and missile/space tracking; electro-optic, infrared and laser systems; space satellite communications systems; telemetry systems and space vehicle avionics. They will be familiar with the government regulations associated with such equipment and be prepared, if the opportunity presents itself, to open their own business in the field.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 28-unit major. The Associate in Science Degree can be obtained by completing a total of 60 units, including the major and the general education requirements. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units
AERO 110— Instrument Power Distribution & Flight Control Systems	7
AERO 111—Aircraft Communications Systems	7
AERO 112—Aircraft Navigation Systems	7
AERO 113—Aircraft Radar & Pulse Systems	<u>7</u>
	28

Aeronautics courses numbered 200 and above are intended as refresher courses and may be used to prepare for FAA licensing. They are not applicable toward the certificate or A.S. Degree in Airframe Maintenance or Powerplant Maintenance and are not covered under Part 147 FAR's or the school FAA certification.

Students with prior experience or schooling must have Solano instructor verification for substitution or waiving. "Proof of Proficiency Exam" may be required prior to enrollment in any class other than 055.

AERO 055

10 Units

Aviation Maintenance Technician General I

Course Advisory: SCC minimum English and Math standards.

Presents the fundamentals necessary for the advanced study in aeronautics. It will define the history of aviation and powerplant operation, and the study of flight; aircraft weight and balance, ground operation and servicing, mathematics, maintenance forms and records, basic physics, maintenance publication, and mechanic privileges and limitation. Safety is stressed throughout the course. In addition, this course is a study of the methods and processes used in the production of an aircraft, including shop safety, use of hand tools and power equipment, aircraft drawings, cleaning, corrosion control, and the processes used by the manufacturers for aircraft construction. *Five hours lecture, fifteen hours lab.*

<p>AERO 102 10 Units</p> <p>Airframe Maintenance I <i>Course Advisory: SCC minimum English standard; AERO 055.</i> Presents the application of fundamental methods, techniques and practices used in aircraft inspection, maintenance and repair. Includes shop safety, wood structures, fabric covering, finishes, composite structures, plastics, sheet metal structures, welding, assembly and rigging, and airframe inspection. <i>Five hours lecture, fifteen hours lab.</i></p>	<p>AERO 111 7 Units</p> <p>Aircraft Communication Systems <i>Prerequisites: ECTN 053 and ECTN 126.</i> A study of the basic principles of communication systems used on modern aircraft including information on maintenance levels, FAA and FCC requirements, customer relations, basic RF systems, RF transmitters, antenna systems, related test equipment, documentation, aircraft drawing and various manufacturer's support manuals will be used. Mandatory field and laboratory experience will include typical installation and repair facilities, federal laws governing installation, repair and calibration of equipment used in conjunction with communication systems. <i>Five hours lecture, six hours lab.</i></p>
<p>AERO 103 10 Units</p> <p>Aviation Maintenance Technician General II <i>Course Advisory: SCC minimum English standard; AERO 055.</i> A study of fluid control systems and components with emphasis on design, maintainability, testing and repair. Includes hydraulic fluids, lines and fittings, inspection, checking, servicing and testing of pneumatic and hydraulic systems. Presents theory and application of direct and alternating current as related to air electrical components and systems. <i>Five hours lecture, fifteen hours lab.</i></p>	<p>AERO 112 7 Units</p> <p>Aircraft Navigation Systems <i>Prerequisites: ECTN 053 and ECTN 126.</i> A study of basic principles of the navigation systems used on modern aircraft including the "glass cockpit" and the general theory of navigation systems will be addressed, along with specific investigation into ADF VOR/localizer, glide slope, marker beacon systems, aircraft drawings and various manufacturer's support manuals will be used. Mandatory field and laboratory experience will include typical installations and repairs of each system and the facilities necessary to accomplish the task. Also the student will study the Federal laws governing installation, repair and calibration of equipment used in conjunction with navigation systems. <i>Five hours lecture, six hours lab.</i></p>
<p>AERO 105 10 Units</p> <p>Airframe Maintenance II <i>Course Advisory: SCC minimum English standards.</i> A detailed study of aircraft systems, their fabrication, maintenance, and repair. Includes landing gear, hydraulic, pneumatic, atmosphere control, instruments, communication, navigation, fuel, position, warning, rain and fire protection systems. <i>Five hours lecture, fifteen hours lab.</i></p>	<p>AERO 113 7 Units</p> <p>Aircraft Radar and Pulse Systems <i>Prerequisites: ECTN 053 and ECTN 126.</i> A study of the basic principles of the radar and pulse systems used on modern aircraft including the theory of radar and pulse systems, analog MTI systems, analog signal processing FM-CW radar wave propagation targets, and DME and transponder principles. An introduction to radar procedures, aircraft drawings and various manufacturer's support manuals will be used. Mandatory field and laboratory experience will include typical installation and repair facilities, Federal laws governing installation, repair and calibration of equipment used in conjunction with radar and pulse systems. <i>Five hours lecture, six hours lab.</i></p>
<p>AERO 106 10 Units</p> <p>Powerplant Maintenance I <i>Course Advisory: SCC minimum English standard; AERO 055.</i> Presents a study of the theory, operation, maintenance and repair of reciprocating engines and accessories. <i>Five hours lecture, fifteen hours lab.</i></p>	<p>AERO 117 10 Units</p> <p>Powerplant Maintenance II <i>Course Advisory: SCC minimum English standard; AERO 055.</i> Presents a study of the theory, operation, maintenance and repair of the turbine engine and accessories. <i>Five hours lecture, fifteen hours lab.</i></p>
<p>AERO 110 7 Units</p> <p>Instrument Power Distribution & Flight Control Systems <i>Prerequisites: ECTN 053 and ECTN 126.</i> A study of basic principles of the electronic systems used on modern aircraft including a review of the principles of flight, aircraft power distribution, basic flight control systems, an introduction to avionics equipment maintenance and repair and Federal Avionics Administration rules, documentation, aircraft drawings and various manufacturers support manuals. Mandatory field and laboratory experience will include typical installation and repair facilities, federal laws governing installation, repair and calibration of equipment used in conjunction with avionics maintenance. <i>Five hours lecture, six hours lab.</i></p>	<p>AERO 118 .5-1.5 Units</p> <p>FAA Airframe Test Review and Qualification <i>Course Advisories: SCC minimum English and math standards; AERO 055.</i> To be taken during the final semester of a student's enrollment in the Aviation Program. Consists of a comprehensive oral, practical, and written examination of all material covered in the Airframe Program for the purpose of verifying the student's readiness to pass the Federal Aviation Administration Airframe Examinations. This is an open entry/open exit course. May be repeated to a maximum of 1.5 units, including initial enrollment. <i>Six to eighteen hours lab (4 week course).</i></p>

Aeronautics

AERO 119 .5-1.5 Units

FAA Powerplant Test Review and Qualification
Course Advisories: SCC minimum English and math standards; AERO 055. To be taken during the final semester of a student's enrollment in the Aviation Program. Consists of a comprehensive oral, practical, and written examination of all material covered in the Powerplant Program for the purpose of verifying the student's readiness to pass the Federal Aviation Administration Powerplant Examinations. This is an open entry/open exit course. May be repeated to a maximum of 1.5 units, including initial enrollment. **Six to eighteen hours lab (4 week course).**

AERO 150 .5-1.5 Units

FAA Special Projects - Airframe Enhancement
Course Advisories: SCC minimum English and Math standards. Any Solano College Aeronautics course (AERO 055-119); or previous training/experience in aeronautics. This course is designed to give Aeronautics students a chance to make up time lost for FAA certificate and/or to work on special projects required by FAA to bring students in line with new FAA FAR Part 66 requirements. This is an open entry/open exit course. May be repeated to a maximum of 1.5 units, including initial enrollment. **One and one half to four and one half hours lab.**

AERO 151 .5-1.5 Units

FAA Special Projects - Powerplant Enhancement
Course Advisories: SCC minimum English and Math standards. Any Solano College Aeronautics course (AERO 055-119); or previous training/experience in aeronautics. This course is designed to give Aeronautics students a chance to make up time lost for FAA certificate and/or to work on special projects required by FAA to bring students in line with new FAA FAR Part 66 requirements. Also allows mechanics to take recurrent training. This is an open entry/open exit course. May be repeated to a maximum of 3 units, including initial enrollment. **One and one half to four and one half hours lab.**

AERO 175 2 Units

Working with Composite Materials
Course Advisories: SCC minimum English and Math standards. Introduces the student to the manufacturing and maintenance of composite materials in aeronautical and aerodynamic structures. Emphasis is placed on the safe handling of tools and chemicals used in composites. Does not qualify toward FAA licensing for airframe or powerplant mechanics. **One hour lecture, three hours activity.**

AERO 176 1 Unit

Composite Materials Workshop
Prerequisite: AERO 175 with a grade of "C" or better. Course Advisories: SCC minimum English and Math standards. Continues the study of the manufacturing and maintenance of composite materials in aeronautical and aerodynamic structures. Through laboratory practice the student is able to improve their skills to aeronautical quality. Emphasis is placed on the safe handling of tools and chemicals used in composites. Does not qualify toward FAA licensing for airframe or powerplant mechanics. **Three hours activity.**

Special Topics

These courses, numbered 098, 148, or 248, depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.

PROGRAM DESCRIPTION

Students may select from two art programs—Two-Dimensional or Three-Dimensional. These programs are designed to develop visual skills in a variety of art media.

ASSOCIATE IN ARTS DEGREE

The Associate in Arts Degree can be obtained upon completion of 60 units, including the courses in the major for Art—Two-Dimensional or Art—Three-Dimensional, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

ART—TWO-DIMENSIONAL

	Units
ART 001—Art History	
OR	
ART 002—Art History	3
ART 004—Life Drawing	2-3
ART 006—Design Principles in 2-Dimensions	3
ART 007—Design-Color	3
ART 008—Design Principles in 3-Dimensions	3
ART 011—Survey of Modern Art	3
ART 014—Intro. to Drawing (2-3 units)	
OR	
ART 015—Intermediate Drawing (3 units)	2-3
ART 017—Acrylic and Oil Painting	2-3
ART 031—Sculpture	
OR	
ART 023—Intro. to Ceramics: Hand Building	
OR	
ART 026—Intro. to Ceramics: Wheel Throw	
	<u>2-3</u>
	23-27

Recommended Electives

ART 010, 012, 016, 018, 019, 020, 021, 022, 024, 025, 027, 028, 032, 033, 034, 035, 037, 039, 040, 041, 043, 044, 045, 048, 058, 060, 061, 100, 145
 PHOT 030

ART—THREE-DIMENSIONAL

	Units
ART 001—Art History	
OR	
ART 002—Art History	3
ART 004—Life Drawing (3 units)	
OR	
ART 015—Interm. Drawing (2 or 3 units)	2-3
ART 006—Design Principles/ 2-Dimensions	3
ART 007—Design-Color	3
ART 008—Design Principles/ 3-Dimensions	3
ART 011—Survey of Modern Art	3
ART 014—Introduction to Drawing	2
ART 023—Intro. Ceramics: Hand Building	
OR	
ART 026—Intro. Ceramics: Wheel Throw.	2-3
ART 031—Sculpture	2-3
ART 032—Sculpture: Human Figure	2-3
ART 033—Intermediate Sculpture	<u>2-3</u>
	27-32

Recommended Electives

ART 003, 010, 011, 012, 015, 024, 025, 027, 028, 034, 035, 037, 039, 040, 041, 042, 043, 048, 060

Art

ART HISTORY

PROGRAM DESCRIPTION

This program provides the academic and practical experience to prepare students for a career, or further education at a four-year institution, in art history and related fields.

ASSOCIATE IN ARTS DEGREE

The Associate in Arts Degree can be obtained by completing a total of 60 units, including the 27-30 units for the major, the general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	Recommended Electives
ART 001—Art History	3	ART 003*,004, 005, 006, 007, 008, 010, 012*, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 031, 032, 033, 034, 035, 037, 038, 039, 040, 041, 042, 043, 044, 045, 048, 049, 052, 053, 054, 055, 056, 057, 058, 061, 098, 100, 145, 148 CINA 010*, 015 FREN 001, 002, 003, 004, 031, 032, 033, 034 GRMN 001, 002, 003, 004, 031, 032, 033, 034 HIST 002, 003, 004, 005 HUMN 002 LATN 001, 002, 003 PHIL 031, 032 PHOT 030, 035* *If not already taken as part of the major.
ART 002—Art History	3	
ART 003—World Art		
OR		
ART 012—Inside/Outside: The Cultures and Identities of Visual Artists in a Diverse America	3	
ART 011—Survey of Modern Art	3	
ART 060—Exhibition Design	3	
PHOT 035—The Art of Photography		
OR		
CINA 010—The Art of Cinema	3	
ART 006—Design Principles in 2-Dimensions		
OR		
ART 007—Design-Color		
OR		
ART 008—Design Principles in 3-Dimensions	3	
ART 014—Introduction to Drawing		
OR		
ART 023—Introduction to Ceramics: Hand Building		
OR		
ART 031—Sculpture	2-3	
Electives--two courses from Recommended List*	4-6	
	27-30	

GRAPHIC DESIGN & ILLUSTRATION

PROGRAM DESCRIPTION

This program provides the student with sufficient academic and practical experience for entrance into the job market as a graphic artist, or for study towards the B.A. in college or professional school.

ASSOCIATE IN ARTS DEGREE

The Associate in Arts Degree can be obtained by completing a total of 60 units, including the 24-27 unit major, the general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	
ART 004— Life Drawing		Recommended Electives ART 001, 002, 004*, 005, 010, 015*, 023, 026, 031, 032, 038, 003, 009, 041, 053 BUS 181 CINA 010, 015 DRFT 050, 070 ENGL 051 JOUR 060, 061 MKT 170, 171, 172 OCCED 090, 091 PHOT 030, 148 TV 050, 055, 056
OR		
ART 015—Intermediate Drawing	2-3	
ART 006—Design Principles in 2-Dimensions	3	
ART 007—Design-Color	3	
ART 014—Intro. to Drawing	2-3	
ART 052—Lettering and Layout	2-3	
ART 054—Illustration I	3	
ART 055—Illustration II	3	
ART 056—Graphic Design I	3	
ART 057—Graphic Design II	<u>3</u>	
	24-27	

*If not taken as part of the major.

Art

ART 001 Art History <i>Course Advisory: Eligibility for ENGL 001.</i> Covers the history of art in the Western World from the Paleolithic era to the Middle Ages, focusing on the interrelation of art and culture, with a comparative study of selected non-Western art. <i>Three hours lecture.</i>	3 Units	ART 007 Design—Color <i>Course Advisory: SCC minimum English standards.</i> A study of the principles of additive and subtractive color in two dimensions. Various theories of color will be studied including those of Albers and Ittens. Reference to the use of color in the dominant styles of art history will be made. Students will produce a portfolio of projects in applied color and the elements of design. <i>Two hours lecture, four hours lab.</i>	3 Units
ART 002 Art History <i>Course Advisory: Eligibility for ENGL 001.</i> Covers the history of Western Art through a critical analysis of Renaissance art through Modern Art. Students will examine the connection between art and culture, and evaluate the historic, religious, and political influences on the artistic choices of diverse men and women of art history from the 15th century to today. <i>Three hours lecture.</i>	3 Units	ART 008 Design Principles in 3-Dimensions <i>Course Advisory: SCC minimum English standards.</i> The fundamental study of visual elements and principles of design for production of art objects in three dimensions using various sculpture materials and methods. Design formats developed from historic and esthetic precepts are employed to investigate the relationships of form and content. <i>Two hours lecture, four hours lab.</i>	3 Units
ART 003 World Art <i>Course Advisories: Eligibility for ENGL 001 and SCC minimum math standard.</i> A cross-cultural exploration of recurrent themes in the art and architecture of the world, emphasizing Non-Western art with selected Western art for comparative study. <i>Three hours lecture.</i>	3 Units	ART 010 Art Appreciation <i>Course Advisory: Eligibility for ENGL 001.</i> A study of the visual elements, materials and techniques used in the creation of art forms, including analysis of art across history and cultures. Audio-visual presentation and field trips that focus on the importance of understanding subject, form and content in the appreciation of art. <i>Three hours lecture.</i>	3 Units
ART 004 Life Drawing <i>Course Advisory: SCC minimum English standards.</i> A study of the human figure in action and repose using a variety of drawing materials and approaches. Assignments include line drawings, tone studies, the use of color, and portraits. The student submits a midterm and final portfolio for evaluation. (CAN ART 24). <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units	ART 011 Survey of Modern Art <i>Course Advisory: Eligibility for ENGL 001.</i> A study of the major art styles and artists from 1875 to the present. Analysis of subject, form and content of paintings and sculpture in lecture and audio visual presentation. Classes supplemented by field trips to current exhibitions. Written examinations and term paper required. <i>Three hours lecture.</i>	3 Units
ART 005 Life Drawing <i>Prerequisite: ART 004.</i> The continued study of the human figure with more advanced problems in drawing and composition. Following initial review, the student may choose an individual program of study with the approval of the instructor. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units	ART 012 Inside/Outside: The Cultures and Identities of Visual Artists in a Diverse America <i>Course Advisory: ENGL 001.</i> An art survey course that examines and assesses three or more groups of culturally diverse artists, art organizations and support structures. Issues relating to social and historical trends including the role of art as it influences American attitudes towards ethnic identity, race, gender, culture and discrimination will be explored. <i>Three hours lecture.</i>	3 Units
ART 006 Design Principles in 2-Dimensions A fundamental study of visual elements and principles of design for production of art images in 2-dimensions using various materials in black and white. Design formats developed from historic and esthetic precepts are employed to investigate the relationship of form and content. <i>Two hours lecture, four hours lab.</i>	3 Units	ART 014 Introduction to Drawing <i>Course Advisory: SCC minimum English standards.</i> A study of drawing as a means of expression with emphasis on the potential variety of forms and materials available to the artist. Students will create representational and abstract drawings from still life, the figure, nature and imagination. Observational drawing skills will be developed. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units

<p>ART 015 2 or 3 Units Intermediate Drawing <i>Course Advisories: ART 014; SCC minimum English and Math standards.</i> A basic drawing class which develops the concepts introduced in ART 14 on a more advanced level. Problems in observation and imagination and the translation of these experiences into graphic terms by exploration of line, shape, mass, space, texture, and light and shadow. Emphasis on composition and the development of a personal approach to drawing. Students will be required to submit a portfolio of assignments. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>be a component of this class. This course will examine the interrelationships of humans and their surroundings, and the esthetics choices available with which to communicate our responses. May be repeated to a maximum of 9 units, including initial enrollment. <i>One to two hours lecture, three to four hours lab.</i></p>
<p>ART 016 2 or 3 Units Beginning Painting <i>Course advisory: ART 014; SCC minimum English standards.</i> Introduction to techniques and materials of painting in acrylic or oil. Designed for the student with limited experience in painting, this course includes color theory, composition, exposure to a variety of subject matters, and the development of skills for individual expression. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 021 2 or 3 Units Watercolor <i>Course Advisory: SCC minimum English standards.</i> An introduction to the materials and techniques of transparent watercolor. Course includes basic composition, color study and an exploration of materials. Lectures, demonstrations and field study will supplement class assignments. <i>One to two hours lecture, three to four hours lab.</i></p>
<p>ART 017 2 or 3 Units Acrylic and Oil Painting A study of acrylic and oil painting techniques focusing on use of color, the medium and composition. A series of painting assignments designed to develop skills in both media. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 022 2 or 3 Units Watercolor <i>Prerequisite: ART 021. Course Advisory: SCC minimum English standards.</i> A continuation of the study of basic watercolor techniques with emphasis on a more individual approach to the medium. The student and instructor develop a course of study that will focus on needs in the areas of skills and self-expression. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i></p>
<p>ART 018 2 or 3 Units Acrylic and Oil Painting <i>Prerequisite: ART 017.</i> A study of color, composition and technique in oil or acrylic painting on an intermediate level. The student may choose to repeat assignments from ART 017 or develop an outline of semester assignments appropriate to his interest and skill needs. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 023 2 or 3 Units Introduction to Ceramics: Hand Building Covers basic construction methods of hand building and finishing pottery. Emphasis on form, craftsmanship and creativity. Building methods include pinch technique, coil building, and slab construction. Surface techniques include texture, stencil, slip, relief, stain, and glaze. Non-traditional construction and surface techniques will also be covered. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i></p>
<p>ART 019 2 or 3 Units Figure Painting <i>Course Advisory: SCC minimum English standards.</i> A study of figure painting techniques. Students work directly from the model to develop skills in rendering and expression. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 024 2 or 3 Units Intermediate Ceramics: Hand Building <i>Prerequisite: ART 023.</i> Continuation of ART 023 with emphasis on expanding skills, experimentation, design, craftsmanship, and creativity. Application of basic techniques to create finished art forms. <i>One to two hours lecture, three to four hours lab.</i></p>
<p>ART 020 2 or 3 Units Landscape Drawing and Painting—Reflections of Nature <i>Course Advisories: SCC minimum English and Math standards.</i> Focuses on the outdoors as subject matter. Frequent field trips and class exercises will introduce and expand the student's awareness and observational skills of the environment, in the tradition of Natural History as well as plein air (outdoor) art making. The student will reflect and translate these experiences into graphic terms using various media while considering line, shape, mass, space, texture, light, color, and shadow. The student will focus on composition and content while developing an understanding of the environment. Keeping a written and visual journal will also</p>	<p>ART 025 2 or 3 Units Ceramic Design and Decoration: Hand Building Methods <i>Prerequisite: ART 024.</i> Emphasizes ceramic design problem-solving. Emphasis on creativity, design, honing skills, craftsmanship and experimentation. Ceramic art of the past as well as contemporary art is discussed. Loading and firing kilns, formulating glazes and mixing clay bodies are also covered. Builds on fundamental skills covered in Art 023 and Art 024. <i>One to two hours lecture, three to four hours lab.</i></p>

Art

ART 026 Introduction to Ceramics: Wheel Throwing Techniques Introduction to basic wheel throwing techniques. Emphasis on form, craftsmanship, and creativity. Surface techniques include texture, stencil, slip, relief, stain, and glaze. Non-traditional construction and surface techniques will also be covered. Repeatable 1 time. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units	ART 033 Intermediate Sculpture <i>Prerequisites: ART 031 or ART 032 or ART 034.</i> Further development of concepts and skills presented in ART 031 and 032. Emphasis is placed on individual expression. A variety of materials, methods, and sculptural concepts are explored. Repeatable 3 times. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units
ART 027 Intermediate Ceramics: Wheel Throwing Techniques <i>Prerequisite: ART 026.</i> Continuation of ART 026 with emphasis on expanding skills, experimentation, design, craftsmanship, and creativity. Application of basic techniques to create finished art forms. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units	ART 034 Ceramic Sculpture <i>Course Advisory: SCC minimum English standards.</i> Introduction to basic sculpture concepts, materials, and approaches with an emphasis on ceramics. Subjects to be covered include: Historic and contemporary approaches to ceramic sculpture, slab construction, coil building, mold making, extruded fabrication, modeling from the figure, introduction to ceramic color, characteristics and limitations of ceramic materials. Repeatable 2 times. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units
ART 028 Ceramic Design: Wheel Throwing Techniques <i>Prerequisite: ART 027.</i> Emphasizes ceramic design problem-solving. Emphasis on creativity, design, honing skills, craftsmanship and experimentation. Ceramic art of the past as well as contemporary art is discussed. Loading and firing kilns, formulating glazes and mixing clay bodies are also covered. Builds on fundamental skills covered in ART 026 and ART 027. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units	ART 035 Wood-Fired Ceramics <i>Prerequisite: ART 023 or ART 026. Course Advisories: SCC minimum English and Math standards.</i> Covers the ancient and contemporary art of wood-fired ceramics. Topics include techniques of forming clay, the formulating of clay bodies and glazes for wood fire, kiln construction, wood firing techniques, Eastern and Western aesthetics and the history of wood-fired ceramics. Course will require participation in wood firing with some time spent outside regularly scheduled class hours. Repeatable 3 times. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units
ART 029 Raku Pottery <i>Prerequisite: ART 023 or ART 026 or equivalent.</i> Covers the ancient and contemporary art of Raku. Topics include techniques of forming clay, the formulation of clay bodies and glazes for Raku, kiln construction, firing, post firing, Eastern and Western aesthetics, and history of Raku. Repeatable 2 times. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units	ART 037 Clay and Glazes for the Ceramic Artist <i>Prerequisite: ART 023 or 026. Course Advisories: SCC minimum English and Math standards.</i> Covers and investigates the theoretical and practical aspects of clay and glaze formulation. Topics covered include: Clay/glaze fit, glaze calculation, testing strategies, the development of color, the development of texture, kiln types, kiln temperatures and kiln atmosphere. Repeatable 2 times. <i>Two to three hours lecture, two to three hours lab.</i>	2 or 3 Units
ART 031 Sculpture Introduction to sculpture methods and materials. Emphasis on principles of three dimensional design and the interrelationship of form, content and context. Sculpture methods to be covered include modeling, mold making, welding, assemblage, and construction with a variety of materials. <i>One to two hours lecture, three to four hours lab.</i>	2 or 3 Units	ART 038 Introduction to Printmaking <i>Course Advisory: SCC minimum English and Math standards.</i> Explores traditional and contemporary approaches to silk-screen, etching (Intaglio), lithography, and relief (woodcut and linoleum) printing. Newer print processes like offset lithography, thermographic and computer-mediated print processes are discussed and demonstrated. This course is project oriented to enable the student to develop a portfolio of completed works in various mediums. <i>Two hours lecture, four hours lab.</i>	3 Units

<p>ART 039 2 or 3 Units Etching and Engraving: Line Techniques <i>Course Advisory: SCC minimum English standards.</i> Covers history and techniques of line etching and engraving, including dry point, sugar lift line etching, and soft ground line variations. The student is expected to produce matted prints of completed projects. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 052 2 or 3 Units Lettering and Layout <i>Course Advisory: SCC minimum English standards.</i> Basic lettering skills in several media for reproduction and creative lettering. Study of layout and illustration in sign, poster, and advertising design. Recommended for commercial art students and art majors. <i>One to two hours lecture, three to four hours lab weekly.</i></p>
<p>ART 040 2 or 3 Units Etching and Engraving: Tone Includes etching and engraving techniques such as aquatint, featherbiting, spit bite, and soft ground which produce tones that have gray and black areas defining line etchings. The student will prepare a portfolio of completed projects. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 053 2 Units Layout Indication <i>Prerequisite: ART 052 or equivalent. Course Advisory: SCC minimum English standards.</i> Introduction to basic use of markers in creating professional layouts, including how to achieve various textures and effects with markers; understanding the marker as a tool for a quick, crisp method in layout advertising, brochures, posters, etc. <i>One hour lecture, three hours lab.</i></p>
<p>ART 041 2 or 3 Units Etching & Engraving: Color Includes etching and engraving techniques and their history, including the use of multiple plates for each color used on the key plate. Some color plate methods covered include a la poupee, monotype, chine colle, color rollings, and viscosity printing. The student will prepare a portfolio of completed projects. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 054 3 Units Illustration I <i>Course Advisory: SCC minimum English standards.</i> Problems in design and rendering of illustration for print and film media. Projects may include illustrations for books, magazines, advertising and film. <i>Two hours lecture, four hours lab.</i></p>
<p>ART 042 2 Units Printmaking: Silkscreen Includes basic silkscreen printing, with an emphasis on learning the principal techniques and application in the production of original design. Repeatable 3 times. <i>One hour lecture, three hours lab.</i></p>	<p>ART055 3 Units Illustration II <i>Prerequisite: ART 054 or equivalent as determined by portfolio review. Course Advisory: SCC minimum English standards.</i> Studio illustration conception, production and finish. Students will execute illustration projects using professional procedures and equipment. Emphasis is on student creative and technical development. Written papers and portfolio review required. Repeatable 1 time. <i>Two hours lecture, four hours lab.</i></p>
<p>ART 043 2 or 3 Units Printmaking: Relief Printing, Including Woodcut Includes etching and engraving techniques in areas of relief printing such as collograph, embossment, de-embossment, assemblages, woodblock, and stencils from plant forms. The students will prepare a portfolio of completed projects. Repeatable 3 times. <i>One to two hours lecture, three to four hours lab.</i></p>	<p>ART 056 3 Units Graphic Design I Provides fundamental background for terminal and transfer students planning to enter the graphic design field. Instruction in the professional use of design, lettering, and illustration through solution of visual communication problems. <i>Two hours lecture, four hours lab.</i></p>
<p>ART 049 2-3 Units Art Honors <i>Prerequisites: Completion of 24 units of college credit with a minimum GPA of 3.3; a minimum of 5 units in the discipline with a grade of "B" or better; an ability to work independently; permission of the Division Dean based on instructor availability.</i> An independent study course designed for sophomores or students who have taken many of the basic classes and wish to continue work with an instructor in a specialized area. The student works by arrangement with the instructor on an outlined program of study. May be repeated to a maximum of 6 units, including initial enrollment. <i>Six to nine hours weekly by arrangement.</i></p>	<p>ART 057 3 Units Graphic Design II <i>Prerequisite: ART 056. Course Advisories: SCC minimum English and Math standards.</i> Computer design and production methods for print and digital mediums using Macintosh computers and Adobe and other software programs for layout, illustration, typography, and animation. Graphic design principles are stressed. <i>Two hours lecture, four hours lab.</i></p>

Art

ART 058 2 or 3 Units

Clothed Figure

Course Advisory: *SCC minimum English standards.* Course emphasis is on understanding the various properties of clothing and drapery, as used with the figure in painting and drawing. Gesture, proportion, form and color will be studied in relation to the clothed figure. Projects will include a variety of costume statements including fashion, sport, fantasy or science fiction and theatre costume. Repeatable 1 time. **One to two hours lecture, three to four hours lab.**

ART 060 3 Units

Exhibition Design

Course Advisory: *Eligibility for ENGL 001.* Provides fundamentals of designing exhibitions in galleries, museum, and alternative spaces. Students will gain hands-on experience managing all aspects of the Solano Art Gallery. Topics covered include selection, design and installation of exhibitions; defining the mission of a gallery; public relations; and career opportunities. Repeatable 2 times. **Two hours lecture, four hours lab.**

ART 061 2 or 3 Units

Collage and Assemblage

Course Advisory: *SCC minimum English standards.* Explores the making of 2D and 3D collages in a variety of media. Addresses the history and prevalence of collage thinking as an approach to art making while integrating traditional drawing and painting skills. Repeatable 1 time. **One to two hours lecture, three to four hours lab.**

ART 064 3 Units

Monotype/monoprint

Course Advisories: *SCC minimum English and Math standards.* This course will focus on the unique print. Study will include history and development of this form in relation to print tradition. Development of press skills in single-drop and multi-drop printing is required. A portfolio of printing techniques including direct, indirect and combination prints will be required. Repeatable 2 times. **Two hours lecture, four hours lab.**

ART 065 3 Units

Book Making

Course Advisories: *SCC minimum English and Math standards.* Explores book making in a variety of formats. Discussion of the history and development of the book is included. Students will make several books: Classic signature book bound between boards, side bound books and a variety of artist's books including altered books, boxed books, and 3 dimensional book structures like accordion books and pop-up books. Repeatable 2 times. **Two hours lecture, four hours lab.**

ART 100 2 or 3 Units

Color and Mixed Media Drawing

Course Advisory: *SCC minimum English standards.* Course focuses on the use of a variety of drawing materials and techniques with special attention to color theory. Lectures, demonstrations and field study will supplement class assignments. Repeatable 1 time. **One to two hours lecture, three to four hours lab.**

ART 145 2 or 3 Units

Portrait Drawing and Painting

Course Advisory: *ART 014.* A multi-faceted course addressing the representation of likeness portrait study. Includes anatomy and work with live models, self-portraits and portraits of others. Issues of gender, ethnic identity, youth and aging, stereotyping and caricature will be presented in historical and contemporary contexts. Portrait work will be explored in a variety of stylistic formats from observational likeness to expressionistic images to symbolic portraits. Work in a variety of media is required. Repeatable 1 time. **One to two hours lecture, three to four hours lab.**

Special Topics

These courses, numbered 048, 098, or 148 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.

AUTOMOTIVE BODY AND REPAIR

PROGRAM DESCRIPTION

This program is designed to prepare the student for employment as a body repair and paint apprentice in privately owned repair shops or automotive dealerships. A student could be self-employed from the training after completing the program.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 46-unit major below. The Associate in Science Degree can be obtained by completing 67 units, including the major and the general education requirements. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	Recommended Electives
AUTB 100—Fundamentals of Auto Body Repair	10	BUS 005
AUTB 101—Spray Paint Theory and Techniques	10	DRFT 079
AUTB 102—Automotive Body Panels and Frame Straightening	10	IT 110, 160
AUTB 103—Advanced Auto Body Repair and Painting	10	OCED 090, 091
IT 140—Industrial Materials	3	
IT 150—Industrial Processes	<u>3</u>	
	46	

AUTOMOTIVE TECHNICIAN

PROGRAM DESCRIPTION

This program is designed to prepare graduates for employment in the automotive industry as apprentice mechanics, parts people, service station attendants or specialists in one of the many areas in, or jobs related to, the automotive industry.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained by completing the 40-unit major below. The Associate in Science Degree can be obtained upon completion of 61 units, including the major, and the general education requirements. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	Recommended Electives
ATEC 130—Automotive Systems	10	BUS 005
ATEC 131—Automotive Electrical Systems	10	ECTN 101
ATEC 132—Automotive Brakes & Suspension Systems	10	IT 110, 140, 150, 160
ATEC 133—Internal Combustion Engines & Power Transmission	<u>10</u>	OCED 090, 091
	40	

Automotive

AUTOMOTIVE BODY AND REPAIR

For additional listings see "Industrial Education" section of this catalog.

AUTB 100 10 Units

Fundamentals of Auto Body Repair

Course Advisory: *SCC minimum English standards.* Acquaints the student with the basic skills and fundamental principles of auto body repair. Learned skills are verified through manipulative and written tests. *Five hours lecture, fifteen hours lab.*

AUTB 101 10 Units

Spray Paint Theory and Techniques

Prerequisite: *AUTB 100.* **Course Advisory:** *SCC minimum English standards.* Acquaints the student with the basic principles and techniques of automotive refinishing. Skills acquired are verified through manipulative projects and written tests. *Five hours lecture, fifteen hours lab.*

AUTB 102 10 Units

Automotive Body Panels and Frame Straightening

Prerequisite: *AUTB 100.* Students will learn to repair and replace body panels. Includes unibody and frame straightening. Learned skills are verified through manipulative projects and written exams. *Five hours lecture, fifteen hours lab.*

AUTB 103 10 Units

Advanced Auto Body Repair and Painting

Prerequisites: *AUTB 101, 102.* Students are exposed to the fine details of automotive body repair. Excellence and precision of skills are refined and quality work is emphasized. Students demonstrate their achievements through manipulative projects and written tests. *Five hours lecture, fifteen hours lab.*

AUTB 110 3 Units

Special Projects

Prerequisites: *AUTB 103.* Advanced projects undertaken by students in their field of specialization, under supervision of the instructor. Repeatable 1 time. *Two hours lecture, three hours lab.*

Special Topics

These courses, numbered 148, 248, or 548, depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.

AUTOMOTIVE TECHNICIAN

For additional listings see "Industrial Education" section of this catalog.

ATEC 070 3 Units

Automotive Fundamentals

Course Advisories: *SCC minimum English and Math standards.* The study of automotive fundamentals including hazardous waste handling, automotive safety, automotive careers, auto-

motive information systems, tools and equipment, fasteners, automotive measurements and measuring devices, bearings and sealants, engine systems and operation, drivelines, suspension and steering, brakes, and auxiliary systems. *Two hours lecture, three hours lab.*

ATEC 130 10 Units

Automotive Systems

Course Advisory: *SCC minimum English standards.* A study of the theory and practice of automotive repair, maintenance and diagnosis including safety, hand and power tools, test equipment and service, and design principles of all automotive systems. A broad overview providing the knowledge and skills necessary to meet the specific requirements of ATEC 131, 132, and 133. Testing and manipulative skills based on industry standards. *Five hours lecture, fifteen hours lab.*

ATEC 131 10 Units

Automotive Electrical Systems

Prerequisite: *ATEC 130.* **Course Advisory:** *SCC minimum English standards.* Presents the theory and repair of automotive electrical systems. Includes the study of electricity principles, conventional and electronic ignition systems, charging systems, starting systems and electrical accessories. Provides the student with knowledge and skills in systems diagnosis, repair and testing necessary for entry into the trade. Testing and manipulative skills based on industry standards. *Five hours lecture, fifteen hours lab.*

ATEC 132 10 Units

Automotive Brakes and Suspension Systems

Prerequisite: *ATEC 131.* **Course Advisory:** *SCC minimum English standards.* Study of automotive brakes, suspension systems, and wheel alignment theory and service procedures. Includes skills development in the use of wheel alignment machines and brake reconditioning equipment. Provides the student with knowledge and skills in diagnosis repair and testing necessary for entry into the trade. Testing and manipulative skills based on industry standards. *Five hours lecture, fifteen hours lab.*

ATEC 133 10 Units

Internal Combustion Engines and Power Transmission

Prerequisite: *ATEC 132.* **Course Advisory:** *SCC minimum English standards.* A study of internal combustion engines, transmissions, differentials, and support systems. Provides the student with the knowledge and skills in engine and power transmission theory and overhaul procedures necessary for entry into the trade. Testing and manipulative skills based on industry standards. *Five hours lecture, fifteen hours lab.*

Banking and Finance, Bank Operations

Business & Computer Science Division

PROGRAM DESCRIPTION

"Banking is more people than figures. It's helping people with their problems. People tell us everything because we are in a position of trust." (Jean Adamson, U. S. Assistant Treasurer) The banking and finance program is offered by the College in cooperation with the American Institute of Banking.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 21-unit major. The Associate in Science Degree can be obtained upon completion of 60 units, including the major, general education requirements, and electives.

All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	
BIF 150—Principles of Bank Operation	3	CIS 055, 073, 060
BUS 018—Legal Environment of Business	3	OCED 090, 091
BUS 181—Business Mathematics	3	OT 054, 055, 100, 159, 162
CIS 050—Microcomputers Applications	3	
MGMT 191—Human Relations	3	
SPCH 001—Introduction to Public Speaking		
OR		
SPCH 060—Communication Strategies	3	
Elective(s) selected from the Recommended		
Electives	<u>3</u>	
	21	

Recommended Electives

BIF 150

3 Units

Principles of Bank Operations

Course Advisory: SCC minimum English standards. A comprehensive study and analysis of the economic functions of banks and the services they render to society. *Three hours lecture.*

Biology

Math & Science Division

PROGRAM DESCRIPTION

The biology program emphasizes the relationship between structure and function of living systems and the concept that biological processes can be studied at different levels of organization. The program provides a balanced blend of mathematics, chemistry, physics and traditional and modern biology including the advanced topics essential to students continuing their studies at the university. Life is explored at the molecular, cellular, organismal and ecological levels.

ASSOCIATE IN SCIENCE DEGREE

The Associate in Science Degree can be obtained by completing the 44-46 unit major, the general education requirements, and electives for a total of 64-66 units. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units
BIO 001—Organismal Biology	5
BIO 002—Cell and Molecular Biology	5
CHEM 001 & 002—General Chemistry (5 & 5 units)	10
CHEM 003 & 004—Organic Chemistry (5 & 5 units)	10
MATH 030 & 031—Analytic Geometry and Calculus (3 & 3 units)	
OR	
MATH 020 & 021—Analytic Geometry & Calc. (4 & 4 units)	6-8
PHYS 002 & 004—General Physics (Non-Calculus) (4 & 4 units)	
OR	
PHYS 006 & 007—Physics for Science/Engineering (4 & 4 units)	<u>8</u>
	44-46

BIO 001	5 Units	BIO 004	5 Units
Principles of Organismal Biology <i>Prerequisite: MATH 104. Course Advisory: Eligibility for ENGL 001.</i> This course for biology majors covers evolution, ecology, and the diversity of life. The laboratory component includes invertebrate and vertebrate dissection and several weekend and all day field trips. <i>Three hours lecture, six hours lab.</i>		Human Anatomy <i>Course Advisories: BIO 016; SCC minimum English and Math standards.</i> A study of the structure of the human body involving histology, gross dissection and prepared human materials. (Formerly BIO 006.) <i>Three hours lecture, six hours lab.</i>	
BIO 002	5 Units	BIO 005	5 Units
Principles of Cell and Molecular Biology <i>Prerequisite: CHEM 001. Course Advisory: Eligibility for ENGL 001.</i> An introduction to basic concepts of cell and molecular biology that includes Mendelian and molecular genetics. Laboratory work includes performing current procedures in molecular biology with accurate reporting in scientific style. <i>Three hours lecture, six hours lab.</i>		Introductory Physiology <i>Prerequisite: A grade of "C" or better in BIO 006 and CHEM 001, or CHEM 010. Course Advisory: SCC minimum English and Math standards.</i> A physiology course that studies normal mechanisms and homeostatic relationships of most systems of the body from the molecular to the gross levels. The laboratory relates microstructure to function; utilizes a variety of instruments and techniques for measuring body parameters; and establishes the rationale for determining functional status. <i>Three hours lecture, six hours lab.</i>	

<p>BIO 012 3 Units Environmental Science <i>Course Advisories: Eligibility for ENGL 001 and SCC minimum math standard.</i> Examines the basic concepts of biology (especially ecology), chemistry, and physics to study: 1) human population growth; 2) short and long-term use of resources (such as soil, food, land, renewable and non-renewable energy, water, and air); and 3) the production of pollution and other wastes. <i>Three hours lecture.</i></p>	<p>BIO 019 Marine Biology <i>Course Advisories: Eligibility for ENGL 001 and SCC minimum math standard.</i> A non-majors course that studies the diversity and natural history of life in the marine environment with an emphasis on the adaptations of organisms to their environment. Lecture and laboratory exams, written reports and several field trip activities are required to fulfill the course requirements. Some field trips may involve a fee. <i>Three hours lecture, three hours lab.</i></p>	<p>4 Units</p>
<p>BIO 012L Environmental Science Laboratory <i>Prerequisite: BIO 012 (may be taken concurrently) Course Advisories: Eligibility for ENGL 001 and SCC minimum math standard.</i> A course that uses laboratory and mandatory field trip techniques to examine the ecological roles of organisms, resource use, and pollution/waste. <i>Three hours lab.</i></p>	<p>BIO 047 Independent Study <i>Prerequisite: A grade of "C" or better in 12 units of credit, including 4 units from within the discipline. Course Advisories: Eligibility for ENGL 001; statistics may be useful for data analysis.</i> Designed for students who intend to major in biological sciences or pre-professional programs. May be repeated to a maximum of 3 units, including initial enrollment. <i>One and one-half to nine hours weekly by arrangement.</i></p>	<p>1 Unit</p> <p>.5-3.0 Units</p>
<p>BIO 014 Principles of Microbiology <i>Prerequisite: CHEM 010. Course Advisory: SCC minimum English standards.</i> The study of the morphology, physiology, genetics, taxonomy, and ecology of microorganisms. The course also includes principles of immunology, the control of microbes, and their relationship to disease. Laboratory exercises cover aseptic techniques, identification, staining, and microbial growth among others. <i>Three hours lecture, three hours lab.</i></p>	<p>BIO 049H Biology Honors <i>Prerequisites: Eligibility for Honors Program; BIO 001, BIO 002, BIO 005, BIO 014, or BIO 015 (any of these courses may be taken concurrently). Requires approval of a faculty member sponsor and the Dean of the Math-Science Division. Course Advisory: Eligibility for ENGL 001.</i> Requires students to complete an independent student project under the supervision of a member of the faculty. The project may be a laboratory or field study or a library study that leads to a thesis. In all cases, the final written product should show integration and synthesis of ideas. <i>Three to nine hours weekly by arrangement.</i></p>	<p>4 Units</p> <p>1-3 Units</p>
<p>BIO 015 Introduction to Biology <i>Prerequisite: None. NOTE: Not open for credit to students who have completed BIO 001 or 002. Course Advisories: Eligibility for ENGL 001; SCC minimum math standard.</i> A non-majors biology course that introduces basic concepts of living organisms including aspects of biological chemistry, cell structure and function, physiology, genetics, evolution, and ecology. Students must successfully complete both the lecture AND lab portions of the course. <i>Three hours lecture, three hours lab weekly, including field trips.</i></p>	<p>BIO 099 Biology Honors: Dissection <i>Prerequisites: Completion of 24 units of college credit with a minimum GPA of 3.3; a minimum of 5 units in the discipline with a grade of "B" or better; an ability to work independently; permission of the Division Dean based on instructor availability.</i> An independent study project designed to increase understanding of human anatomy through detailed dissection and other projects assigned by the supervising instructor. The student will be evaluated through oral examination and evaluation of dissections. May be repeated to a maximum of 6 units, including initial enrollment. <i>One and one-half to six hours weekly by arrangement.</i></p>	<p>4 Units</p> <p>.5-2.0 Units</p>
<p>BIO 016 Introduction to Human Biology <i>Prerequisite: None. NOTE: Not open for credit to students who have completed BIO 001, 002, 005, 010 or 015. Course Advisories: SCC minimum English and Math standards.</i> An introduction to general biology with emphasis on the human model. Topics include cell structure and function, human evolution, anatomy and physiology, genetics, and the human impact on the environment. This is a course for non-majors. <i>Three hours lecture.</i></p>	<p>BIO 018 Biology of Sex <i>Course Advisories: SCC minimum English and Math standards.</i> Our biological bases of sex and sexuality will be discussed and compared with other organisms. Essay and objective exams as well as written assignments will be used for student evaluations; the final exam will be comprehensive. <i>Three hours lecture.</i></p>	<p>3 Units</p> <p>3 Units</p>
<p>BIO 018 Biology of Sex <i>Course Advisories: SCC minimum English and Math standards.</i> Our biological bases of sex and sexuality will be discussed and compared with other organisms. Essay and objective exams as well as written assignments will be used for student evaluations; the final exam will be comprehensive. <i>Three hours lecture.</i></p>	<p>Special Topics These courses, numbered 048, 098, or 148 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.</p>	<p>3 Units</p>

Industrial Biotechnology

Math & Science Division

PROGRAM DESCRIPTION

This program prepares graduates to work in the biotechnology industry as production technicians. A production technician operates and maintains the equipment used to manufacture protein pharmaceutical products. Students will grow bacterial, yeast, and mammalian cells and recover the proteins that they produce. They will follow good manufacturing practices by maintaining records in order to comply with quality assurance procedures and government regulations. Students in the program must be able to adjust their time to a flexible schedule.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

The Certificate of Achievement can be obtained upon completion of the 22-24 unit major with a grade of "C" (2.0) or better in each course. The Associate in Science Degree can be obtained upon completion of 60 units, including the major, general education requirements and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units
BIOT 051—Principles of Biotechnology	3
BIOT 052—Business & Regulatory Practices in Biotechnology	3
BIOT 062—Cell Culture and Protein Recovery	4
BIOT 063—Biotechnology Instrumentation: Quality Control & Genetic Engineering	4
BIO 014—Principles of Microbiology (4 units) OR	
BIO 002—Principles of Cell and Molecular Biology (5 units)	4-5
CHEM 010—Intermediate Chemistry (4 units) OR	
CHEM 001—General Chemistry (5 units)	4-5 22-24

NOTE: Prior knowledge and use of computers is advised including word processing, spreadsheets, and databases.

BIOT 051

3 Units

Principles of Biotechnology

Prerequisite: BIO 014 or BIO 002 or BIOT 160. Course Advisories: SCC minimum English and Math standards.

This course covers topics important in the development, production, recovery, and analysis of products produced by biotechnology. The course traces the path of a drug or biologic from the cell through the production facility, the final processing, and into the human body. It discusses the growth characteristics of the organisms used to produce pharmaceutical proteins, the techniques used in product recovery, and the techniques used in product analysis. *Three hours lecture.*

BIOT 052

3 Units

Business and Regulatory Practices in Biotechnology

Course Advisories: Eligibility for ENGL 001; SCC minimum math standard. Examines how basic business principles and sound manufacturing procedures assure the quality and safety of a product as the manufacturing team moves a product down the biotechnology production pipeline. It explores the role of governmental oversight and regulation during the discovery, development, and manufacturing of new products produced by biotechnology. *Three hours lecture.*

BIOT 062**4 Units****Cell Culture and Protein Recovery**

Prerequisites: *BIO 014 or BIO 002 or BIOT 160. Course Advisory: Eligibility for ENGL 001.* This laboratory course teaches the skills needed to serve as a technician in biotechnology production. Students grow and monitor bacterial, yeast, and mammalian cells on a laboratory scale that emulates the large-scale production used in industry. Students will become familiar with the cleaning, sterilization, aseptic inoculation, operation, and monitoring of fermenters and bioreactors. Students then recover and purify proteins produced by those cell cultures. They recover and purify proteins using centrifugation, ultrafiltration, and chromatography techniques. The course emphasizes the use of current Good Manufacturing Practices (cGMP), and students gain experience following Standard Operating Procedures (SOP). **Two hours lecture and six hours lab weekly.**

BIOT 063**4 Units****Biotechnology Instrumentation: Quality Control & Genetic Engineering**

Prerequisite: *BIO 014 or BIO 002 or BIOT 160. Course Advisory: Eligibility for ENGL 001.* Familiarizes students with small scale laboratory practices, both those used in a research laboratory and those used by a quality control department in industry, to analyze the quality of a cell culture process and the purity of protein products produced by cells in culture. The course emphasizes the use of Good Laboratory Practices (GLP) in these analyses. Students will gain experience in techniques used to analyze nucleic acids and in the genetic engineering of cells. They will also gain experience with the common assays used in Quality Control including electrophoresis, High Performance Liquid Chromatography (HPLC), Enzyme Linked Immunosorbant Assay (ELISA), and Polymerase Chain Reaction (PCR) to test products generated using cell culture. **Two hours lecture and six hours lab weekly.**

BIOT 160**4 Units****Basic Concepts/Methods in Biotechnology**

Prerequisite: *Math 104 or Math 114. Course Advisories: SCC minimum English and Math standards.* This course serves as a prerequisite to Solano College's biotechnology courses by giving students knowledge of the basic concepts in biology and chemistry used in biotechnology while also developing the basic laboratory skills required to succeed in this field. NOTE: Not open to students who have completed CHEM 001, CHEM 010, BIO 002, BIO 014 or equivalent. This course is not designed for students intending to transfer. **Two hours lecture and six hours lab weekly.**

Business, General (Transfer)

Business & Computer Science Division

PROGRAM DESCRIPTION

This program is designed for business students planning to transfer to the University of California and/or the California State University systems.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained by completing the 26-unit major with a grade of "C" or better in each course. The Associate in Science Degree can be obtained by completing a total of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES AND ELECTIVES

	Units	Recommended Electives:
ACCT 001—Accounting—Financial	4	BUS 092
ACCT 002—Accounting—Managerial	4	CIS 020, 022, 023, 025
BUS 005—Introduction to Business	3	MATH 011, 015, 020, 021, 030, 031
BUS 018—Legal Environment of Business	3	OCED 090, 091
CIS 001—Introduction to Computer Science OR CIS 050—Microcomputer Applications	3	Suggested general education math courses for the Business, General (Transfer) major are MATH 011 (Statistics) and MATH 015 (Finite Math) OR MATH 030 (Analytical Geometry and Calculus). Students should consult a counselor regarding Business Articulation Agreements for a particular college or university campus.
ECON 001—Prin. of Economics	3	
ECON 002—Prin. of Economics	3	
Elective(s) selected from the Recommended Electives	<u>3</u>	
	26	

BUSINESS-INSURANCE: PROPERTY & CASUALTY

PROGRAM DESCRIPTION

This program provides essential background information needed by those wishing to work in an insurance office. Extensive employment opportunities are available in a variety of job areas from sales to accounting to database or project management.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained by completing the 31-unit major below. The Associate in Science Degree can be obtained upon completion of 60 units, including the major, and the general education requirements and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units		
ACCT 001—Principles of Accounting-Financial	4	BUS 070—Introduction to Insurance	1
BUS 092—Business Communication	3	BUS 071—Principles of Property/Liability Insurance	3
BUS 005—Introduction to Business	3	BUS 072—Personal Insurance	3
BUS 018—Legal Environment of Business	3	BUS 073—Commercial Insurance	3
CIS 050—Microcomputer Applications	3	BUS 074—Insurance--Code & Ethics	1
CIS 073—Microsoft Excel	3	OCED 090—Occupational Work Experience	<u>1</u>
			31
		Recommended Electives	
		MKT 171, 173	

JOB-DIRECT CERTIFICATE REQUIREMENTS

All courses must be completed with a grade of "C" or better.

Insurance Specialist

Required Courses	Units
BUS 170—Introduction to Insurance	1
BUS 171—Principles of Property/Liability Insurance	3
BUS 172—Personal Insurance	3
BUS 173—Commercial Insurance	3
BUS 174—Insurance - Code and Ethics	1
	11

Many courses formerly listed under the Business discipline now appear under the disciplines "Accounting," "Management," "Marketing," or "Office Technology."

BUS 005 3 Units

Introduction To Business

Course Advisories: *Eligibility for ENGL 001, SCC minimum math standard.* A comprehensive study and analysis of the principles of business. The course introduces students to contemporary business principles, practices, and terminology. Students will gain an understanding and appreciation of the private enterprise system, and how the functional areas of business work and interrelate. The course explores business career opportunities, provides the prerequisite knowledge needed for success in other business courses, and prepares students for transfer to upper-division business degree programs. Assigned readings, class participation, written homework, and written examinations are required. *Three hours lecture.*

BUS 018 3 Units

Legal Environment of Business

Course Advisories: *Eligibility for ENGL 001, SCC minimum math standard.* A comprehensive introduction to the study of the law, with specific emphasis on the legal environment of business. Includes the legal process, legal institutions, contracts, agency, the Uniform Commercial Code (UCC), torts, employment, property, computer law, consumer protection, government regulation and Alternative Dispute Resolution (ADR), along with ethical concerns and current public policy issues. Written examinations required. *Three hours lecture.*

BUS 058 3 Units See Human Development 058.

BUS 060 3 Units

Introduction to International Business

Course Advisories: *Eligibility for English 001, SCC minimum math standard.* A comprehensive overview designed to provide a global perspective in a continuously emerging international marketplace, including topics such as foreign investing, impact of financial markets, international marketing, cultural understanding, and operation of multinational and small companies. *Three hours lecture.*

BUS 070 1 Unit

Introduction to Insurance

Course Advisories: *Eligibility for English 001, SCC minimum math standard.* Provides students with the background needed prior to taking the other insurance courses. Included are topics such as property/casualty insurance, distribution of insurance products and services to the consumer, how insurance company departments function, civil laws or tort and contract, basic commercial and personal Insurance Services Office (ISO) contracts, and the risk management process. *Three hours lecture. (6 week course).*

BUS 071 3 Units

Principles of Property and Liability Insurance

Course Advisories: *Eligibility for English 001, SCC minimum math standard.* One of five insurance courses that are designed to prepare students for employment in the insurance industry, which consists of many different types of employment opportunities, from selling insurance to working in a variety of positions in an insurance company. *Three hours lecture.*

BUS 072 3 Units

Personal Insurance

Course Advisories: *Eligibility for English 001, SCC minimum math standard.* Assists individuals in learning basic information regarding personal insurance. It includes information about automobile insurance; homeowners' insurance; other residential insurance, such as fire and earthquake insurance; marine insurance; and other personal property. *Three hours lecture.*

BUS 073 3 Units

Commercial Insurance

Course Advisories: *Eligibility for English 001, SCC minimum math standard.* One of five insurance courses designed to prepare students for employment in the insurance industry. Emphasis for this course is on commercial insurance. The insurance industry offers many different types of employment opportunities, from selling insurance to working in an insurance office. *Three hours lecture.*

Business

BUS 074 Insurance -- Code & Ethics <i>Course Advisories: Eligibility for English 001, SCC minimum math standard.</i> Designed to enable students to understand and apply proper ethical business behavior and obligations, especially as they relate to those working in the field of insurance. <i>Three hours lecture. (6 week course).</i>	1 Unit	BUS 181 Business Mathematics <i>Course Advisory: SCC minimum English standards.</i> Requires students to apply essential mathematical skills necessary for success in business. Includes a review of fractions, decimals, percents, ratios, the percentage formula, and general business applications; covers advanced business applications such as interest, discount, markup, payroll, pricing policies, cash and trade discounts, and financial statements. This self-paced, programmed learning class is open entry/open exit. May be repeated to a maximum of 3 units, including initial enrollment. <i>Three hours lecture.</i>	1-3 Units
BUS 092 Business Communication <i>Course Advisories: Eligibility for ENGL 001; SCC minimum math standard.</i> A study of communication theory in the planning and preparation of various types of letters, reports, resumes, and oral presentations along with analysis of group dynamics, symbolic communication, interview techniques and listening skills. Stresses audience analysis, style, appearance, and the importance of grammar, punctuation and vocabulary. Strong focus on gender and cultural communication issues and strategies in the workplace. Critical thinking encouraged through written and oral assignments and case studies on business communication and ethical issues. <i>Three hours lecture.</i>	3 Units	BUS 182 Small Business Mathematics <i>Course Advisories: SCC minimum English and Math standards.</i> Requires students to apply essential mathematical skills necessary for persons operating a successful business. It includes asset and inventory management; ratio analysis, depreciation, taxation applied to sales, excise, and real property; investments and insurance, and basic statistics. This self-paced, programmed learning course is open entry/open exit. <i>One hour lecture.</i>	1 Unit
BUS 099 Business Honors <i>Prerequisites: Completion of 24 units of college credit with a minimum GPA of 3.3; a minimum of 5 units in the discipline with a grade of "B" or better; an ability to work independently; permission of the Division Dean based on instructor availability.</i> A comprehensive study and analysis of a topic of student scholarship which is centered on important topics or issues within the business field. May be repeated to a maximum of 6 units, including initial enrollment. <i>Three to nine hours weekly by arrangement.</i>	1-3 Units	BUS 191 Investment Fundamentals <i>Course Advisory: SCC minimum English standards.</i> A comprehensive study and analysis of investment strategies available to investors. Topics covered include the stock and bond market, gold, money markets and options. <i>Three hours lecture.</i>	3 Units
BUS 100 Work Readiness <i>Course Advisories: SCC minimum English and Math standards.</i> Covers the process of assessing the job market and completing a resume and application. Topics include how to be successful on the job and to gain satisfaction and rewards from work. The skills needed in the workplace are emphasized along with the social and communication skills, personal characteristics and habits, and expectations of the employer. <i>Three hours lecture (8 week course).</i>	1.5 Units	BUS 201 Starting and Managing a Small Business Presents an overview of the process and steps involved in establishing a small business. Topics include entrepreneurial characteristics, success and failure factors, financing, management and business concerns, and developing a check list for planning a start-up. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>	.5 Unit
BUS 119 Project Management <i>Prerequisites: CIS 001 or CIS 050 and BUS 005. Course Advisories: ECON 002, ACCT 002, CIS 091, BUS 092; SCC minimum English and Math standards.</i> Integrates business concepts used in managing a development or business project such as the project's scope and goals, management of communication, cost and time management, and human resources together with using project management computer software designed for these tasks. Students will manage case studies using their understanding of business and using the software. (Same as CIS 119) <i>Three hours lecture, one hour lab weekly by arrangement.</i>	3 Units	BUS 202 Financing a Small Business Examines various sources of money to start, buy, or expand a small business, including the many ways to start, buy, or expand a business with little or no money. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>	.5 Unit
		BUS 203 Business Financial Management Examines the preparation and analysis of financial statements and basic small business accounting techniques, using manual and/or computer systems. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>	.5 Unit

BUS 204	.5 Unit	BUS 209	.5 Unit
Managing Credit and Collections Examines the functions of credit and collections, how to establish a credit policy and collections procedures, and how to avoid legal problems. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>		Establishing a Home-Based Business Presents the basic fundamentals and considerations involving the use of a private residence as the primary location of a small business. Topics include the advantages and disadvantages of home-based operations; licensing, zoning and use permits; legal and liability considerations, specific state and federal tax compliance; employing family members; and the business use of personal assets. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>	
BUS 205	.5 Unit	BUS 210	.5 Unit
Business Budgeting Examines the use of budgeting techniques as an aid to making informed business decisions. Budgeting enables small business owners to reduce risk and increase the probability of success. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>		Record Keeping for Small Business Examines the legal, tax, and other reasons for keeping business documents, what kinds should be kept, and how to create them. The use of various manual and computer systems is explored. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>	
BUS 206	.5 Unit	BUS 211	.5 Unit
Planning for Sales and Profit Examines various business strategies that enable a small business to grow rapidly in size and profitability. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>		Marketing and Advertising Covers the process of determining what customers want to buy and how to sell products and services to them. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>	
BUS 207	.5 Unit	BUS 212	.5 Unit
Recruiting and Selecting Employees Explores the process of identifying human resource needs and the process of recruiting and selecting the right person. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>		Risk Management and Insurance Focuses on the risks associated with owning a small business and how to reduce them. Explores the different types of insurance available. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>	
BUS 208	.5 Unit	Special Topics These courses, numbered 098, 148 or 248 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.	
Employee Relations and Personnel Policies Good employees are made through effective training, development, and relations. This course explores techniques used in training and developing good employees. The elements that comprise a sound employee relations program are presented. This is a credit/no-credit only course. <i>Eight hours lecture total. (Two week course.)</i>			

Chemistry

Math & Science Division

PROGRAM DESCRIPTION

This program is designed to foster an understanding of the fundamental principles of chemistry in a variety of applications. Students will learn how chemical knowledge is derived, theorized, and applied in solving problems in everyday life.

ASSOCIATE IN SCIENCE DEGREE

The Associate in Science Degree can be obtained by completing 60 units, including the 26-29 unit major listed below, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units
CHEM 001 & 002—General Chemistry (5 & 5 units)	10
CHEM 003 & 004—Organic Chemistry (5 & 5 units)	10
BIO (any course except 048 or 098)	3 – 5
PHYS 002—Gen. Physics (Non-Calculus) (4 units)	
OR	
PHYS 006—Gen. Physics (Calculus) (4 units)	
OR	
PHYS 010—Descriptive Physics (3 units)	<u>3–4</u> 26-29

CHEM 001

5 Units

General Chemistry

Prerequisite: A grade of “C” or better in any of the following: *MATH 104* or two years of high school algebra AND a grade of “C” or better in one of the following: *CHEM 160* OR one year of high school chemistry. **Course Advisories:** *CHEM 010* is strongly recommended for students who need additional preparation in problem solving; *SCC minimum English standards*. Presents principles of general chemistry for students in science, engineering, medical and related professions. Topics include atomic structure and theory, the periodic table, bonding, gas laws, stoichiometry, solutions, ionization, thermochemistry and equilibrium. **Three hours lecture, six hours lab.**

CHEM 002

5 Units

General Chemistry

Prerequisite: *CHEM 001* or equivalent with a grade of “C” or better. A continuation of chemical principles and theory covered in CHEM 001 with emphasis on electrochemistry, chemical equilibrium, and quantitative and qualitative analysis. **Three hours lecture, six hours lab.**

CHEM 003

5 Units

Organic Chemistry I (F)

Prerequisite: *CHEM 002* with a grade of “C” or better. **Course Advisory:** *ENGL 001* is strongly recommended. First half of a two semester course (CHEM 003 and CHEM 004) that begins a survey of organic chemistry for students in chemical, biological, health science, and related professions. Topics include analysis of structure and nomenclature, bonding, isomerism, and basic reaction mechanisms of organic chemicals. Functional groups considered include alkanes, alkenes, alkynes, alcohols, and alkyl halides. Basic organic laboratory procedures are introduced along with spectral analysis, simple syntheses, and reactions described in lecture. **Four hours lecture, four hours lab.**

CHEM 004

5 Units

Organic Chemistry II (S)

Prerequisite: *CHEM 003* with a grade of “C” or better. A continuation of CHEM 003, topics include analysis of structure, nomenclature, and reaction mechanisms of conjugated systems, aromatics, organometallics, various functional groups, carbohydrates, lipids, amino acids, proteins, and nucleic acids. The laboratory will emphasize more advanced work and the application of instrumentation in organic chemistry. **Four hours lecture, four hours lab.**

CHEM 010**4 Units****Intermediate Chemistry**

Prerequisites: A grade of "C" or better in CHEM 160 or two semesters of high school chemistry, and a grade of "C" or better in MATH 104 or MATH 114 or two years of high school algebra. NOTE: Not open for credit to students who have completed CHEM 001. Course Advisory: SCC minimum English standards. A general chemistry course often required for nursing students and for students majoring in physical therapy, occupational therapy, industrial technology and home economics, it emphasizes the chemistry of inorganic compounds and covers selected topics such as atomic theory, bonding, equations, gas laws, solutions, acid-base theory, and oxidation-reduction. *Three hours lecture, three hours lab.*

CHEM 011**4 Units****Basic Organic Chemistry & Biochemistry (F/S)**

Prerequisite: A grade of "C" or better in CHEM 10 or CHEM 1. Course Advisory: SCC minimum English standards. Presents an overview of organic chemistry and biochemistry for majors in nursing, home economics, liberal arts and technical fields. *Three hours lecture, three hours lab.*

CHEM 051**5 Units****Chemistry for the Health Sciences**

Prerequisite: A grade of "C" or better in CHEM 160 or two semesters of high school chemistry, and a grade of "C" or better in MATH 104 or equivalent or two years of high school algebra. Course Advisory: SCC minimum English standards. This course presents an overview of general, organic chemistry, and biochemistry for majors in nursing and other allied health occupations. Topics covered include chemical bonding, chemical equations, gas laws, solutions, acid-base theory, oxidation-reduction, functional groups and properties of organic compounds, and the structure and function of carbohydrates, lipids, proteins, and nucleic acids. These topics are discussed in the context of cellular metabolism and human health. NOTE: Not open for credit to students who have completed CHEM 011. This course is not a prerequisite for any chemistry course. *Three hours lecture, six hours lab.*

CHEM 097**1-3 Units****Special Projects**

Prerequisite: CHEM 002 with a grade of "C" or better. An independent laboratory project designed to increase a student's laboratory and reporting skills. Completion of chemical analyses and a written report are required. May be repeated to a maximum of 6 units, including initial enrollment. *Three to nine hours weekly by arrangement.*

CHEM 160**4.0 Units****Introductory Chemistry**

Prerequisite: A grade of "C" or better in any of the following: MATH 104 or MATH 114 or two years of high school algebra. NOTE: Not open to students who have completed CHEM 001, CHEM 010, or equivalent. Course Advisory: SCC minimum English standards. An introductory course covering the fundamental principles of inorganic chemistry. *Three hours lecture, three hours lab.*

Special Topics

These courses, numbered 048, 098, or 148 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcement of Special Topics courses appears in the Schedule of Classes.

Communication Studies

(For Cinematography - See "Film & Television")

Fine & Applied Arts/Behavioral Sciences Division

PROGRAM DESCRIPTION

This program is a broad based program concerned with the preparation and delivery of messages in interpersonal, public and mediated situations. This program focuses on understanding the communication process and improving communication skills. The program prepares the students to pursue professional goals in a variety of career possibilities including Community College Teacher, Speech Writer, Communications Consultant, Lawyer, Minister, Personnel Director, Television Director or Producer, Broadcast Journalist, Public Relations, Political Campaign Aide, Sales, Counselor.

ASSOCIATE IN ARTS DEGREE

The Associate in Arts degree can be obtained upon completion of 60 units, including the 18-unit major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	Recommended Electives
SPCH 001—Public Speaking	3	ENGL 004
SPCH 006—Argumentation and Debate	3	JOUR 001, 011
SPCH 010—Interpersonal Communication	3	PHIL 001
SPCH 015—Oral Interpretation	3	PSYC 001
SPCH 060—Business and Professional Communication	3	SPCH 002, 050
TV 050—Survey of Broadcasting	3	THEA 001
	<u>18</u>	TV 055

SPCH 001 3 Units

Introduction to Public Speaking

Course Advisory: *SCC minimum English standards.* Public speaking course which includes instruction and practice in the various forms of public address and the techniques for orally presenting ideas clearly, concisely, and coherently. Students are required to outline speeches frequently; to read a college-level public speaking textbook and apply its principles in the preparation of their speeches; and to critically analyze public speeches of various types. **Three hours lecture.**

SPCH 001H 3 Units

Honors Introduction to Public Speaking

Prerequisites: *Eligibility for the Honors Program. Completion of ENGL 001 with a grade of "B" or higher.* An honors course in public speaking which includes instruction and practice in the various forms of public address and the techniques for orally presenting ideas clearly, concisely, and coherently. Students are required to outline speeches frequently; to read a college-level public speaking textbook and apply its principles in the preparation of their speeches; and to critically analyze public speeches of various types. **Three hours lecture.**

SPCH 002 3 Units

Fundamentals of Persuasive Speaking

Course Advisory: *Eligibility for ENGL 001.* A persuasive speaking course which includes instruction and practice in the various forms of persuasive speaking including, but not limited to, sales presentations, speeches of praise/blame, propaganda, and opposing viewpoints. Students are required to outline persuasive speeches frequently; to read a college-level persuasive speaking textbook and apply its principles in the preparation of their persuasive speeches; to critically analyze persuasive speeches; and to deliver persuasive speeches of various types. **Three hours lecture.**

SPCH 006 3 Units

Argumentation & Debate

Course Advisory: *Eligibility for ENGL 001.* Public speaking course which includes instruction and practice in the principles of argumentation and in the various forms of debate including the analysis of propositions, research, evidence and reasoning. Students are required to practice various forensic debating techniques through the presentation of their outlined affirmative and negative cases after investigating major contemporary issues; to read a college level argumentation and debate textbook and apply its principles in the preparation of their cases; and to critically analyze debate cases. **Three hours lecture.**

Communication Studies

SPCH 008	3 Units	SPCH 050	1-3 Units
Group Communication <i>Course Advisory: SCC minimum English standards.</i> This course is designed to increase students' understanding of group communication behaviors related to problem-solving, decision-making, leadership, group roles, norms and conformity and to prepare students to function more effectively in groups. This course is designed for students majoring in speech communication, business, international business, education, nursing, and all fields of study and certifications that require group and team-building skills. <i>Three hours lecture.</i>		Forensics/Speech Workshop <i>Course Advisory: SCC minimum English standards.</i> Provides training in the principles of all forms of competitive speaking, oral interpretation and debate, including participation in intercollegiate and competition and appearances before campus and community groups. Students attend intercollegiate forensic tournaments and festivals or speak before campus or community audiences. This is an open entry/open exit course. Repeatable to a maximum of 12 units. <i>One hour lecture, three to six hours lab.</i>	
SPCH 010	3 Units	SPCH 060	3 Units
Interpersonal Communication <i>Course Advisory: Eligibility for ENGL 001.</i> Communication principles as applied to different interpersonal communication situations including verbal and non-verbal communication, listening, overcoming barriers to communication, and conflict resolution. <i>Three hours lecture.</i>		Business and Professional Communication <i>Course Advisory: SCC minimum English standards.</i> Presents practical communication skills to allow students to achieve effective verbal communication in business situations, community activities, and other areas of daily life. Areas of discussion include giving and receiving the basic practical communication skills. Exercises are employed to allow students to achieve effective verbal communication in business situations, community activities, and other areas of daily life, including giving and receiving instructions, interviewing, verbal and non-verbal communication. <i>Three hours lecture.</i>	
SPCH 012	3 Units	SPCH 075	3 Units
Intercultural Communication <i>Course Advisory: SCC minimum English standards.</i> This course introduces students to the challenges and promises of intercultural communication with application to American culture, subcultures, and different cultures of the world. Specific focus will be development of the ability to acknowledge and understand the unique voice of people from the African, Asian, Latina, Middle Eastern, and Pacific Island cultures as well as co-cultures within the United States. Through lectures, readings, films, group discussions, written and oral assignments, students will learn the skills necessary to achieve positive outcomes when communicating with others that are perceived as different. <i>Three hours lecture.</i>		Sports Broadcasting <i>Course Advisory: SCC minimum Math standard, eligibility for ENGL 001, SPCH 001.</i> A professional approach to the basics of on-air and internet sports broadcasting. areas of concentration include performance training for play-by-play description, color commentary, compiling and organizing statistical data for a variety of sporting events. The course includes an in-depth approach to careers in broadcast communication with concentration on all aspects of research preparation and delivery presentation to adequately and effectively establish and sustain a career in sports broadcasting. Students will be required to attend weekly athletic competitions. This course is repeatable 3 times. <i>One hour lecture, two hours activity, three hours by arrangement.</i>	
SPCH 015	3 Units		
Oral Interpretation of Literature <i>Course Advisory: SCC minimum English standards.</i> Study of literature through oral performance which includes development of skills in the analysis and interpretation of prose, poetry, and dramatic literature. Emphasis on vocal and physical techniques to orally communicate understanding of the literature performed. <i>Three hours lecture.</i>			
SPCH 049	2-3 Units		
Speech Honors <i>Prerequisites: Completion of 24 units of college credit with a minimum GPA of 3.3; a minimum of 5 units in the discipline with a grade of "B" or better; an ability to work independently; permission of the division Dean based on instructor availability.</i> Independent study course designed for advanced speech students who wish to continue work with an instructor in a specialized area of oral communication. The student and instructor design an outlined program of study. May be repeated to a maximum of 6 units, including initial enrollment. <i>Six to nine hours weekly by arrangement.</i>			

Computer and Information Science

Business & Computer Science Division

COMPUTER PROGRAMMING

PROGRAM DESCRIPTION

This program is designed to prepare the student for employment as a computer programmer trainee.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 33-unit major listed below. The Associate in Science Degree may be obtained by completing a total of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

Not all courses are offered every semester, and the sequence of courses listed below is recommended, not required.

	Units	
CIS 001—Intro. to Computer Science	3	NOTE: Students planning to transfer to a four-year college and major in Management Information Systems/Computer Science should see a counselor regarding Business Articulation Agreements for a particular university campus.
BUS 092—Bus. Communications	3	
CIS 022—Introduction to Programming	3	
CIS 055—MS Windows Operating Systems	3	
CIS 023—Data Structures & Algorithms	3	
CIS 015—Programming in Visual Basic.NET	3	
CIS 089—Essential Networking Technologies	3	
CIS 078—Database Management Systems	3	
CIS 052—UNIX Operating System	3	
CIS 020—Assembly Programming	3	
Elective(s) selected from the Recommended Electives	<u>3</u>	
	33	
Recommended Electives		
CIS 025, 035, 060, 061, 063, 066, 068, 073, 080, 108		
ACCT 001, 002		
BUS 005		
OCED 090, 091		

Computer and Information Science

MICROCOMPUTER APPLICATIONS

PROGRAM DESCRIPTION

This option is designed to prepare the student for employment as a microcomputer applications specialist.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 30-unit major listed below. The Associate in Science Degree may be obtained by completing a total of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

Not all courses are offered every semester, and the sequence of courses listed below is recommended, not required.

	Units	Recommended Electives
CIS 001—Intro. to Computer Science	3	CIS 020, 022, 025, 035, 060, 065, 066,
CIS 055—MS Windows Operating System	3	080, 093, 108
CIS 015—Prog. in Visual Basic.NET	3	ACCT 001, 002
CIS 066—Microsoft Word	3	BUS 005
CIS 073—Microsoft Excel	3	ECTN 158
CIS 089—Essential Network. Techn.	3	OCED 090, 091
CIS 078—Database Management Syst.	3	
CIS 090—Intro. to PowerPoint	1.5	
CIS 061—Creating Web Pages	3	
BUS 092—Bus. Communication	3	
CIS 091—Microsoft Outlook	<u>1.5</u>	
	30	

JOB-DIRECT CERTIFICATE REQUIREMENTS

For each of the following programs, the required courses must be completed with a grade of "C" or better.

Microsoft Office Master

Required Courses

	Units
CIS 066—Microsoft Word	3
CIS 073—Microsoft Excel	3
CIS 090—Introduction to PowerPoint	1.5
CIS 093—Microsoft Publisher	<u>1.5</u>
	9

Microsoft Office Specialist

Required Courses

	Units
CIS 066—Microsoft Word	3
CIS 073—Microsoft Excel	3
CIS 078—Database Management Systems	3
CIS 090—Introduction to PowerPoint	1.5
CIS 091—Microsoft Outlook	1.5
CIS 093—Microsoft Publisher	<u>1.5</u>
	13.5

Database Specialist

Required Courses

	Units
CIS 072—Extensible Markup Language (XML)	3
CIS 078—Database Management Systems	3
CIS 080—SQL Database Management Systems	<u>1.5</u>
	7.5

Computer and Information Science

WEB DEVELOPMENT AND ADMINISTRATION

PROGRAM DESCRIPTION

This specialty is designed to prepare the student for employment as a web site administrator and developer.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 33-unit major listed below. The Associate in Science Degree may be obtained by completing a total of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

Not all courses are offered every semester, and the sequence of courses listed below is recommended, not required.

	Units		
CIS 001—Intro. to Computer Science	3	CIS 083—Web Server Administration	3
CIS 061—Creating Web Pages	3	CIS 089—Essential Networking Technologies	3
CIS 062—Creating Web Interactivity with Flash	3	CIS 111—Cascading Style Sheets	1.5
CIS 069—Multimedia for the Web	3	Elective(s) selected from the	
CIS 072—XML	1.5	Recommended Electives	<u>3</u>
CIS 075—Client Side Programming	3		33
CIS 080—SQL Database Management System	3	Recommended Electives	
CIS 081—Server Side Programming	3	CIS 015, 022, 023, 035, 068, 078, 108, 120, 121	

JOB-DIRECT CERTIFICATE REQUIREMENTS

For each of the following programs, the required courses must be completed with a grade of "C" or better.

Computer Applications Specialist

Required Courses	Units
BUS 100—Work Readiness	1.5
CIS 073 —Microsoft Excel	3
CIS 066—Microsoft Word	
OR	
CIS 063—WordPerfect	3
CIS 078 —Database Management Systems	<u>3</u>
	10.5

Home-Based Computer Processor Required Courses

Required Courses	Units
BUS 100—Work Readiness	1.5
CIS 073 —Microsoft Excel	3
CIS 066—Microsoft Word	
OR	
CIS 063—WordPerfect	3
OT 100—Skillbuilding/Computer Keyboard	1
BUS 201—Starting and Managing a Small Bus.	.5
BUS 210—Record Keeping for Small Bus.	.5
BUS 209—Establishing Home-based Bus.	<u>.5</u>
	10

Web Developer

Required Courses	Units
CIS 001—Intro. to Computer Science	3
CIS 061—Creating Web Pages	3
CIS 069—Multimedia for the Web	3
CIS 072—XML	1.5
CIS 075—Client Side Programming	3
CIS 081—Server Side Programming	<u>3</u>
	16.5

Web Programmer

Required Courses	Units
CIS 015—Programming in Visual Basic.NET	3
CIS 035—Introduction to Java Programming	3
CIS 075—Client Side Web Programming	3
CIS 081—Server Side Web Programming	3
CIS 068—Object Oriented Game Programming with	
Flash	<u>3</u>
	15

Computer and Information Science

- CIS 001** 3 Units
Introduction to Computer Science
Course Advisories: SCC minimum English and Math standards; keyboarding 30 wpm. An introduction to the hardware and software components of basic computer systems. A review of historical, social and cultural implications of computer technology in today's society. Course content will include "hands-on" familiarization with a computer operating system and common application software. Additionally, the course includes an introduction to computer programming using the Visual Basic .Net language. Students will learn to develop problem specifications, detailed analysis, design algorithms, and construct structured computer programs. *Three hours lecture, one hour lab weekly by arrangement.*
- CIS 015** 3 Units
Programming in Visual Basic.NET
Course Advisories: CIS 001 with a grade of "C" or "P" or better; SCC minimum English and Math standards. An introductory course in Object Oriented Programming (OOP) using Visual Basic, emphasizing problem-solving techniques using structured design and development. An extensive coverage of the Visual Basic computer language will be conducted using the Microsoft.Net environment. Students will construct forms and define procedures, events, properties, methods and objects to solve a variety of business-oriented problems. *Three hours lecture, one hour lab weekly by arrangement.*
- CIS 020** 3 Units
Assembly Programming
Prerequisites: CIS 010 or 015 or 022 or 035 with a grade of "C" or "P" or better. Course Advisories: SCC minimum English and Math standards. A hardware-oriented programming course dealing with programming a computer at the assembler language level. Emphasis will be on the assembly language of computers. *Three hours lecture, one hour lab weekly by arrangement.*
- CIS 022** 3 Units
Introduction to Programming
Prerequisites: CIS 001 with a grade of "C" or "P" or better. Course Advisories: SCC minimum English and Math standards. An introduction to computer programming. The course's content will include "hands-on" development of structured algorithms and programs through top-down design, modular and object oriented programming, and standardized control structures. (Taught using an object-oriented computer programming language such as C++, C#, Java, etc.). *Three hours lecture, one hour lab weekly by arrangement.*
- CIS 023** 3 Units
Data Structures and Algorithms
Prerequisites: CIS 022 with a grade of "C" or "P" or better. Course Advisories: SCC minimum English and Math standards. A study of the basic concepts associated with the creation and manipulation of data structures and their related processing algorithms. Topics include software engineering principles, the selection, design, and implementation of data structures including arrays, sequential and random access files, strings, stacks, queues, linked lists, and binary trees, and the development of efficient algorithms for sorting, searching, and manipulating these data structures. (Taught using an object-oriented computer programming language such as C++, C#, Java, etc.) *Three hours lecture, one hour lab weekly by arrangement.*
- CIS 025** 3 Units
FORTRAN Programming
Prerequisite: CIS 001 with a grade of "C" or "P" or better. An introduction to the FORTRAN programming language. Students will learn to code, compile, test, and debug simple programs in the areas of mathematics, science, and business. Topics will include use of subprograms, file processing, multi-dimensional arrays, and structured programming concepts for selection and iteration techniques. *Three hours lecture, one hour lab weekly by arrangement.*
- CIS 035** 3 Units
Introduction to Java Programming
Prerequisites: CIS 022 or CIS 023 or 015 with a grade of "C" or better. Course Advisories: SCC minimum English and Math standards. The course introduces Object Oriented Programming (OOP) using the Java programming language. It includes "hands-on" development of Java applets and Java applications using objects, classes, interfaces and Graphical User Interface (GUI) components. *Three hours lecture, one hour lab weekly by arrangement.*
- CIS 049** 1-3 Units
Computer and Information Science Honors
Prerequisites: Completion of 24 units of college credit with a minimum GPA of 3.3; a minimum of 5 units in the discipline with a grade of "B" or better; an ability to work independently; permission of the Division Dean based on instructor availability. Course Advisories: SCC minimum English and Math standards. Designed for honor students who intend to major in one of the Computer and Information Science options. Students are expected to design their own projects and must submit them to the instructor for approval. May be repeated to a maximum of 6 units, including initial enrollment. *Three to nine hours weekly by arrangement.*
- CIS 050** 3 Units
Microcomputer Applications
Course Advisories: Basic keyboarding skills at 30 wpm; SCC minimum English and Math standards. This course will serve as an introduction to microcomputers and the more frequently used applications software. The course is designed for the microcomputer user who is not a computer science major. The purpose of this course is to help students to understand the concepts and fundamentals of working with: an operating system with its associated graphical user interface, word processing, spreadsheets, databases and presentation software. *Three hours lecture, one hour lab weekly by arrangement.*

Computer and Information Science

CIS 052

3 Units

UNIX Operating System

Course Advisories: CIS 055 with a grade of “C” or “P” or better; SCC minimum English and Math standards. This course will analyze the UNIX operating system, its terminology, user utilities, file structure, file security, commands, shells, shell programming, system architecture, and system administration. Emphasis will be placed on the shell environment, shell programming and utilities. The course will include hands-on exercises for the students to complete using the UNIX operating system (Currently taught using LINUX). *Three hours lecture, one hour lab weekly by arrangement.*

CIS 055

3 Units

MS Windows Operating Systems

Course Advisories: CIS 001 with a grade of “C” or “P” or better; basic keyboarding skills. Students will learn how to use the Graphical User Interface (GUI) and the command line interface in carrying out system tasks in the MS Windows operating systems. Topics include file management, hard disk management, system tools, batch files, connectivity, and the registry. *Three hours lecture, one hour lab weekly by arrangement.*

CIS 057

1.5 Units

Introduction to Microsoft Windows

Course Advisories: CIS 001 with a grade of “C” or “P” or better; ability to keyboard at 30 wpm. Designed to familiarize students with the major features of the Microsoft Windows operating systems file management using My Computer, Explorer, Find; customizing the system using control panel; using accessories such as Paintbrush, Wordpad, Notepad, Calculator; and using other advanced features including OLE (object linking and embedding); backing up and maintaining the system, and the MS Windows Registry. *Three hours lecture, one hour lab weekly by arrangement. (8 week course).*

CIS 060

1.5 Units

Introduction to the Internet

Course Advisories: SCC minimum English and Math standards. Designed to prepare students to use the Internet, a world wide computer network. Emphasis is on introducing features of the Internet, including electronic mail, the World Wide Web, Gopher, FTP (file transfer protocol), Telnet, and Usenet, as well as other Internet services and utilities. Students will explore hands-on the vast resources of the Internet, learn to access information using a variety of methods, and will construct a simple Web page. *Three hours lecture, one hour lab weekly by arrangement. (8 week course).*

CIS 061

3 Units

Creating Web Pages

Course Advisories: CIS 001; SCC minimum English and Math standards. This course is designed to prepare students to develop web sites that interact with databases. Emphasis is on the creation of Web sites with interactive Web pages, data access Web pages, and web pages with interactive components. Students will explore hands-on access to the Internet and an HTML editor to create and maintain Web sites. Repeatable 3 times. NOTE: Repeatable for different HTML browsers, i.e. FrontPage, Dreamweaver, Expression Web, etc. *Three hours lecture, one hour lab weekly by arrangement.*

CIS 062

3 Units

Creating Web Interactivity with Flash

Course Advisories: CIS 001 with a grade of “C” or “P” or better; CIS 061 with a grade of “C” or “P” or better; SCC minimum English and Math standards. This course covers the creation of vector-based graphics, animation, and interactivity within the Web environment. Emphasis will be placed on applying design principles to the elements of motion and interactivity. The basic operating principles of Macromedia Flash will be applied in order to create Web sites with animation, interactive buttons, and sound. Issues of optimal delivery and web accessibility will also be covered. A portfolio-quality professional level capstone project will be developed and presented. *Three hours lecture, one hour lab weekly by arrangement.*

CIS 063

3 Units

WordPerfect

Course Advisories: CIS 001 with a grade of “C” or “P” or better; ability to keyboard at 30 wpm. Provides a thorough study of the WordPerfect word processing program. Students will use basic functions to create business documents as well as advanced features such as macros, mail merge, sorting, graphics, charts, columns, outlining, and styles. *Three hours lecture, one hour lab weekly by arrangement.*

CIS 066

3 Units

Microsoft Word

Course Advisories: CIS 001 or CIS 050 with a grade of “C” or “P” or better; ability to keyboard at 30 wpm. Provides an in-depth study of the functions of the word processing program. Students will learn how to use basic and advanced program features to create and design business documents. *Three hours lecture, one hour lab weekly by arrangement.*

CIS 068

3 Units

Object Oriented Game Programming with Flash

Prerequisite: CIS 062 with a grade of “C” or better. **Course Advisories:** CIS 001 with a grade of “C” or “P” or better; SCC minimum English and Math standards. Using solid programming techniques and the fundamental concepts of Object Oriented Programming, students will use Macromedia Flash ActionScript to create multimedia games. This process includes designing, coding, testing, debugging and documenting Flash ActionScript programs. Additionally, students will apply these concepts to the creation of game programs that utilize digital media including images, animation, audio, video, and text. *Three hours lecture, one hour lab weekly by arrangement.*

Computer and Information Science

CIS 069	3 Units	CIS 080	3 Units
Multimedia for the Web <i>Course Advisories: CIS 001 with a grade of “C” or better; CIS 061 with a grade of “C” or better; SCC minimum English and Math standards.</i> Takes an in-depth look at designing multimedia for the Web. Topics include developing graphic elements such as buttons, background textures and images for a Web site, using Cascading Style Sheets to position graphics, using Dynamic HTML to create web site interactivity, adding audio and/or video to a Web site, and manipulating Web multimedia file formats. <i>Three hours lecture, one hour lab weekly by arrangement.</i>		SQL Database Management Systems <i>Course Advisories: CIS 078 with a grade of “C” or “P” or better; SCC minimum English and Math standards.</i> Designed for the student who needs knowledge and skills about advanced database systems that use the SQL language such as IBM’s DB2, Oracle, Sybase and Microsoft’s SQL Server. This course is designed for the end user, the database designer and the database administrator. Microsoft SQL Server 2000 is the database system currently used for this course. <i>Three hours lecture, one hour lab weekly by arrangement.</i>	
CIS 072	1.5 Units	CIS 081	3 Units
Extensible Markup Language (XML) <i>Course Advisories: CIS 001 with a grade of “C” or better; CIS 061 with a grade of “C” or better; SCC minimum English and Math standards.</i> Introduces Extensible Markup Language. Students will learn how to create XML documents and use XML-based markup languages. <i>Three hours lecture, one hour lab weekly by arrangement (8 week course).</i>		Server-Side Web Programming <i>Course Advisories: CIS 001 with a grade of “C” or better; CIS 061 with a grade of “C” or better; SCC minimum English and Math standards.</i> Emphasizes the creation of interactive web sites using a server-sided scripting language such as ASP, Net, CGI, or Perl. Topics include core features of the server-side scripting language, control structures, functions, arrays, form validations, regular expressions, environmental variables, and database-driven web applications. <i>Three hours lecture, one hour lab weekly by arrangement.</i>	
CIS 073	3 Units	CIS 083	3 Units
Microsoft Excel <i>Course Advisories: CIS 001 with a grade of “C” or “P” or better; ability to keyboard at 30 wpm.</i> Provides a thorough study of spreadsheet operation and enables the student to use the spreadsheet to perform mathematical computations and analysis. Students will create graphic representations of the information contained in a spreadsheet, perform list management routines, use functions, perform “what if” analysis, customize toolbars and menus, and create macros using Visual Basic for Applications. <i>Three hours lecture, one hour lab weekly by arrangement.</i>		Web Server Administration <i>Course Advisories: CIS 001 with a grade of “C” or better; CIS 061 with a grade of “C” or better; SCC minimum English and Math standards.</i> This course covers web server installation and administration for the Internet and intranet. Topics covered include the installation, configuration, management and tuning of web services, security, online transaction processing, and FTP services. <i>Three hours lecture, one hour lab weekly by arrangement.</i>	
CIS 075	3 Units	CIS 089	3 Units
Client-Side Web Programming <i>Course Advisories: CIS 001 with a grade of “C” or better; CIS 061 with a grade of “C” or better; SCC minimum English and Math standards.</i> Focuses on the enhancement of Web pages by adding interactivity and functionality through the use of client-side programming. <i>Three hours lecture, one hour lab weekly by arrangement.</i>		Essential Networking Technologies <i>Course Advisories: CIS 001 with a grade of “C” or “P” or better; SCC minimum English and Math standards.</i> An introductory course starting with a general overview of networking. Network design, media, protocols, architectures, operations, and administration will be discussed. Local area networks, wide area networks, and network connectivity (including Internet) are covered. This course is the foundation of all other network classes and helps prepare the student to be successful when taking various certified examinations. <i>Three hours lecture, one hour lab weekly by arrangement.</i>	
CIS 078	3 Units	CIS 090	1.5 Units
Access - Database Management Systems <i>Course Advisories: CIS 001 with a grade of “C” or “P” or better.</i> An introduction to relational database management using microcomputers. Microsoft’s Access database management program is used. Students will learn how to create and maintain relational database structures, organize and manipulate data, ask questions of the data, create custom forms for entering data and custom reports for printing the data. How to publish objects on the Internet’s World Wide Web is presented. The student will learn how to construct a complete application combining previously created tables, queries, forms, and reports. Visual BASIC Applications (VBA) and Structured Query Language (SQL) are introduced. Advanced database design is explored and the student learns how to “normalize” a database structure. <i>Three hours lecture, one hour lab weekly by arrangement.</i>		Introduction to PowerPoint <i>Course Advisories: CIS 001 or CIS 050 with a grade of “C” or “P” or better; ability to keyboard.</i> This course introduces features and design concepts utilized in developing powerful presentations using a package software such as Microsoft PowerPoint. <i>Three hours lecture, one hour lab weekly by arrangement (8 week course).</i>	

Computer and Information Science

CIS 091	1.5 Units	CIS 104	.5 Units
Microsoft Outlook <i>Course Advisories: SCC minimum English standard, CIS 001 or CIS 050 with a grade of "C" or better; basic keyboarding skills.</i> Students get started using Outlook's features; working with the Contact address book; Inbox and e-mail; Journal; Notes; Tasks; use Calendar to track and schedule appointments, events and meetings; work with forms and templates; use Outlook with other applications. <i>Three hours lecture, one hour lab weekly (8 week course).</i>		Fast Track PowerPoint <i>Course Advisories: SCC minimum English and math standards; previous computer experience; keyboarding at 30wpm.</i> Designed to introduce the student to the most elementary functions of Microsoft PowerPoint. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>	
CIS 093	1.5 Units	CIS 105	.5 Units
MS Publisher <i>Course Advisories: CIS 001 or CIS 050 with a grade of "C" or "P" or better; SCC minimum English and Math standards.</i> Provides "hand-on" experience in the Microsoft Publisher desktop publishing computer program. Students will learn to produce camera ready, near-typeset quality reports, brochures, newsletters, labels, cards, and business forms. <i>Three hours lecture, one hour lab weekly by arrangement (8 week course).</i>		Fast Track Excel <i>Course Advisories: SCC minimum English and math standards; previous computer experience; keyboarding at 30wpm.</i> Designed to introduce the student to the most elementary functions of Excel. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>	
CIS 100	.5 Units	CIS 106	1 Unit
Fast Track Introduction to Computers <i>Course Advisories: SCC minimum English and Math standards.</i> A brief introduction to the microcomputer for novices. Includes an overview of computer components and functions, as well as its uses. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>		Fast Track Computer Literacy <i>Course Advisories: SCC minimum English and Math standards.</i> Designed to provide a brief introduction to microcomputers for novices. It includes an introduction to computer components, and also includes hands-on activities utilizing the Windows operating system, word processing and spreadsheet software and the Internet. This is a pass/no-pass only course. <i>Two hour lecture, one hour weekly by arrangement. (8 week course).</i>	
CIS 101	.5 Units	CIS 107	.5 Units
Fast Track Windows <i>Course Advisories: SCC minimum English and math standards; previous computer experience; keyboarding at 30wpm.</i> Designed to introduce the student to the most elementary functions of Windows. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>		Fast Track Outlook <i>Course Advisories: SCC minimum English and Math standards.</i> Designed to introduce to students to a desktop information management program using Microsoft Outlook for email, calendaring, contacts, tasks, files, and to track activities. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>	
CIS 102	.5 Units	CIS 108	.5 Units
Fast Track Microsoft Word <i>Course Advisories: SCC minimum English and math standards; previous computer experience; keyboarding at 30wpm.</i> Designed to introduce to students the most elementary functions of Microsoft Word. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>		Fast Track WordPerfect <i>Course Advisories: SCC minimum English and math standards; previous computer experience; keyboarding at 30wpm.</i> Designed to introduce to students the most elementary functions of WordPerfect. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>	
CIS 103	.5 Units	CIS 109	.5 Units
Fast Track Internet <i>Course Advisories: SCC minimum English and math standards; previous computer experience; keyboarding at 30wpm.</i> Designed to introduce the student to the most elementary features of working on the Internet. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>		Fast Track Quicken for Windows <i>Course Advisories: SCC minimum English and math standards; previous computer experience; keyboarding at 30wpm.</i> Designed to introduce the student to the most elementary functions of Quicken for Windows 2005. This is a pass/no-pass only course. <i>Eight hours lecture. (1 week course).</i>	

Computer and Information Science

CIS 110	1.5 Units	CIS 119	3 Units
Wireless LANs <i>Course Advisories: CIS 001 with a grade of “C” or “P” or better; SCC minimum English and Math standards.</i> This course is designed to instruct students on planning, designing, installing and configuring wireless LANs. The course offers in-depth coverage of wireless networks with extensive step-by-step coverage of IEEE 802.11b/a/g/pre-n implementation, design, security, and troubleshooting. <i>Three hours lecture, one hour lab weekly. (8 week course).</i>		Project Management <i>Prerequisites: CIS 001 or CIS 050 and BUS 005. Course Advisories: ECON 002, ACCT 002, CIS 091, BUS 092; SCC minimum English and Math standards.</i> This course integrates business concepts used in managing a development or business project such as the project’s scope and goals, management of communication, cost and time management, and human resources together with using project management computer software designed for these tasks. Students will manage case studies using their understanding of business and using the software. (Same as BUS 119) <i>Three hours lecture, one hour lab weekly by arrangement.</i>	
CIS 111	1.5 Units	CIS 120	1.5 Units
Web Design with Cascading Style Sheets <i>Course Advisories: CIS 061 with a grade of “C” or “P” or better; SCC minimum English and Math standards.</i> This course is intended for students and Web Professionals who have a working knowledge of Web design and HTML and want to use cascading style sheets to control the display and formatting on a Web site or any other application that uses CSS. <i>Three hours lecture, one hour lab weekly by arrangement. (8 week course).</i>		Developing XML Web Services <i>Prerequisites: CIS 072. Course Advisories: SCC minimum English and math standards; CIS 001.</i> This course introduces the fundamental Web services architecture and its core technologies, including XML, XML Schema, SOAP, WSDL, and UDDI with the focus on writing, testing, and debugging a Web service such as a credit card validation Web service. <i>Three hours lecture, one hour lab.</i>	
CIS 112	3 Units	CIS 121	3 Units
Introduction to Robotics Programming <i>Prerequisite: CIS 001. Course Advisories: SCC minimum English and Math standards.</i> The student will be introduced to Programming a 360 degree 5 axis articulating arm via the Industry Standard Smart Terminal hand held computer and the PC interface. The student will learn all the basic physical parts of the system. Additionally, the student will learn to utilize many of the 150 programming language commands to manipulate the robot to do work in three dimensional work space over time. Furthermore, the student will learn and implement Industry Standard Robotic Safety Standards in the work place. <i>Three hours lecture, one hour lab weekly by arrangement.</i>		PHP Programming with MySQL <i>Course Advisories: SCC minimum English and math standards; CIS 001; CIS 061.</i> This course teaches Web development with PHP and MySQL. It presents the basics of PHP and MySQL along with advanced topics including object-oriented programming and how to build Web sites that incorporate authentication and security. Upon completion of this course, students should be able to use PHP and MySQL to build professional quality, database-driven Web sites. Additionally, students will become proficient with the administration and maintenance of a MySQL database. <i>Three hours lecture, one hour lab.</i>	
CIS 113	3 Units	CIS 172	1.5 Units
Introduction to Programmable Logic Controllers <i>Prerequisite: CIS 001. Course Advisories: SCC minimum English and Math standards.</i> The student will be introduced to how to design, program and operate the Programmable Logic Controller (PLC) to control a number of process applications used by industries all over the world. The PLC is a microprocessor-based controller designed to provide easily programmed control of almost any type of process. The student will learn to program Input Modules, Output Modules, Processor module, Power Supply, Programming device, and I/O chassis. <i>Three hours lecture.</i>		Computer Forensics: Evidence Recovery <i>Course Advisories: SCC minimum English and math standards.</i> Introduces the student to the physical aspects of data collection from computer systems and computer networks. The student is introduced to the hardware and software used to collect data, the techniques used to ensure integrity and preserve data, and the requirements of preparing collected data for later forensic investigation. Students will learn to process a digital crime scene as well as the corporate environment for both criminal/civil cases and incident response. (Same as ECTN 172). <i>One hour lecture, one and one-half hours lab.</i>	
CIS 115 (formerly CIS 10)	3 Units		
COBOL Programming <i>Prerequisites: CIS 022 with a grade of “C” or “P” or better or CIS 015 with a grade of “C” or “P” or better. Course Advisories: SCC minimum English and Math standards.</i> Covers elements of the COBOL programming language including data description; arithmetic operations; sequential, random, and indexed file manipulation; tables; sorting; data validation; and control break summary reports. Emphasis will be on top-down, structured design techniques. <i>Three hours lecture, one hour lab weekly by arrangement.</i>			

Computer and Information Science

CIS 173

3 Units

Computer Forensics Investigations

Prerequisite: CIS 001. **Course Advisories:** Eligibility for ENGL 001; SCC minimum math standard. Introduces the student to the tools and techniques of preserving and investigating digital evidence in a systematic and scientifically reliable manner using modern computer forensic software applications. The student is introduced to the interpretation and analysis of recovered data for the purpose of collecting legal evidence. Student is exposed to data in an array of formats and applications from several computer types and operating systems as well as deleted, encrypted, and damaged information. Evidence reporting practices are also introduced. (Same as ECTN 173). *Two hours lecture, three hours lab.*

CIS 174

3 Units

Computer Forensics: Operating Systems Internals

Prerequisite: CIS 173 or ECTN 173 with a grade of "C" or better. **Course Advisories:** SCC minimum English and Math standards. Students will explore the internal workings of computer operating systems and perform forensic examinations of various operating systems. Students will analyze FAT, NTFS, Ext2, Ext3, UFS1, and UFS2 file systems and data structures. Students will learn to recognize systems that have been compromised by viruses or other intrusive programs, and will be able to locate corrupt, hidden or deleted data. (Same as ECTN 174). *Two hours lecture, three hours lab.*

Special Topics

These courses, numbered 048, 098, or 148 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcement of Special Topics courses appears in the Schedule of Classes.

PROGRAM DESCRIPTION

The program consists of sixteen hundred (1600) hours of intensive training and study designed to prepare the student to take the California State Board of Cosmetology examination for licensure. Units include theory and practice in fundamental skills in all phases of beauty culture. Assignment of units is based on hours in attendance. See the Course Description portion of the Catalog for prerequisite requirements for admission to the program.

Transfer students will be accepted on a space-available basis providing they have not achieved more than 500 certified hours of training.

CERTIFICATE AND ASSOCIATE IN SCIENCE DEGREE

A certificate can be obtained by completing the 45-unit major listed below. The Associate in Science Degree can be obtained by completing a minimum of 66 units, including the major of at least 45 units and the general education requirements. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units
COSM 100—Cosmetology I	15
COSM 101—Cosmetology II	15
COSM 102—Cosmetology III	15
	<u>45</u>

Recommended Electives:

COSM 103, 104A, 104B, 111, 112, 113,
114, 115, 116, 117, 118A, 118B, 171, 172,
173, 174, 175
OCED 090, 091

JOB-DIRECT CERTIFICATE REQUIREMENTS

All courses must be completed with a grade of "C" or better.

Nail Technician

Required Courses	Units
COSM 171—Manicure Practices	3
COSM 172—Pedicure Practices	3
COSM 173—Artificial Nails	3
COSM 174—Nail Systems	<u>3</u>
	12

First-time students to the Cosmetology Program will be required to attend an orientation meeting and purchase a materials card at registration in addition to the registration fees. The cost of the materials card and start-up materials exceeds \$2,000. For more information see the Schedule of Classes or call the Cosmetology Department at (707) 864-7000 ext. 4389.

Cosmetology

COSM 100

15 Units

Cosmetology I

Course Advisory: *SCC minimum English standards.* The first course in a three semester series to provide the training towards the state mandated 1600 hours of intensive training and study designed to prepare the student for the California State Board of Cosmetology examination for licensure. Introduces theories, concepts, principles and practice in the beauty culture. The student will focus on the fundamental techniques and application skills for cosmetology processes. Critical thinking skills are developed in the application of the concepts of client consultation, communication, hair care, nail care, skin care and cosmetology processes. Note: Students are required to attend the cosmetology orientation meeting and purchase a materials card at registration in addition to the registrations fees. Students are required to purchase an equipment kit and materials card from the SCC College Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. To qualify for the State examination for license, students must have completed the following: designated license hours and requirements; 10th grade or equivalent; be at least 18 years of age. Not open to students who have received credit for COSM 150 or 151. **Five hours lecture, thirty hours lab.**

COSM 101

15 Units

Cosmetology II

Prerequisites: *COSM 100 or COSM 150 and 151.* The second of a three semester course series in Cosmetology to provide the training towards the state mandated 1600 hours of intensive training and study designed to prepare the student for the California State Board of Cosmetology examination for licensure. Focus is on the continued study of beauty culture. This course provides the students with the opportunity to synthesize and utilize cosmetology knowledge and skills in providing multiple clients with hair care, nail care and skin care service in the Patron Laboratory. **Note:** Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. **Five hours lecture, thirty hours lab.**

COSM 102

15 Units

Cosmetology III

Prerequisite: *COSM 101.* The third in a series of a three semester course series in Cosmetology to provide the training towards the state mandated 1600 hours of intensive training and study designed to prepare the student for the California State Board of Cosmetology examination for licensure. Includes principles and practices of cosmetology with emphasis on the essential knowledge and skills for licensure and working within the cosmetology industry. Students are able to increase practical application skills and processes by providing multiple clients with hair care, skin care and nail care services in the patron lab. **Note:** Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. **Five hours lecture, thirty hours lab.**

COSM 103

1-4 Units

Cosmetology IV

Prerequisite: *COSM 100.* **Note:** *Not open to students who have completed COSM 175.* **Course Advisory:** *SCC minimum English standards.* Designed to meet the needs of students who have not completed the required 1600 hours and need additional training. May be repeated to a maximum of 4 units, including initial enrollment. **Note:** Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. One unit requires 50 hours total; 2 units require 100 hours total; 3 units require 150 hours total; and 4 units require 200 hours. Not open to students who have completed Cosmetology 175. **One hour lecture, six hours lab daily.**

COSM 104A

15 Units

Esthetics of Skin Care I

Prerequisites: *Tenth grade completion or equivalent and 18 years of age as required by the State Board of Barbering and Cosmetology.* **Course Advisory:** *SCC minimum English standards.* A two semester course series in skin care consisting of 600 hours. Designed to prepare the student for the California State Board of Barbering and Cosmetology examination for Esthetician licensure. An intensive study of basic and advanced technological concepts in European faciaing techniques. The curriculum framework provides the theoretical, manual, and mechanical skills needed for a profession in esthetics. **Note:** Students are required to purchase a mandatory equipment kit and materials card at the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Additionally, students are required to attend the Cosmetology orientation (see Schedule of Classes for the date and time). **Five hours lecture, thirty hours lab.**

COSM 104B

1-4 Units

Esthetics of Skin Care II

Prerequisites: *COSM 104A.* A continuation of Cosmetology 104A providing additional in-depth training for more advanced skin care techniques and methodologies. Designed to prepare the student for the California State Board of Barbering and Cosmetology examination for Esthetician licensure. **Note:** Students will be required to purchase a mandatory materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. 1 unit requires 50 hours total; 2 units require 100 hours total; 3 units require 150 hours total; 4 units require 200 hours. **A total of fifty lab hours per semester per unit.**

COSM 105A	10 Units	COSM 112	2 Units
Fundamentals of Esthetics <i>Prerequisites: Tenth grade completion or equivalent and 18 years of age as required by the State Board of Barbering and Cosmetology. Course Advisory: SCC minimum English and Math standards.</i> The first of a two-part class designed to introduce students to the basic knowledge and skills to qualify them to take the state licensing exam in esthetics. Topics include the treatments, facials, makeup, and hair removal processes as well as a thorough understanding of the business aspects, general facial procedures, the human anatomy, chemistry, ingredients, electricity, sanitation and health and safety associated with this field. <i>Note:</i> Students are required to purchase a mandatory equipment kit and materials card at the SCC Bookstore. Additionally, students are required to attend the Cosmetology orientation (see Schedule of Classes for the orientation date and time). This class is not open to students enrolled in 104A. <i>Five hours lecture, fifteen hours lab.</i>		Basic Hairstyling <i>Prerequisite: Current California State Cosmetology License or completion of COSM 100. Course Advisory: SCC minimum English standards.</i> This course is designed to provide licensed operators and students enrolled in the Solano College Cosmetology day program with a fundamental knowledge of basic styling and hair cutting skills. <i>Note:</i> Students are required to buy a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. <i>One hour lecture, three hours lab.</i>	
COSM 105B	10 Units	COSM 113	2 Units
Advanced Fundamentals of Esthetics <i>Prerequisites: Tenth grade completion or equivalent and 18 years of age as required by the State Board of Barbering and Cosmetology; completion of COSM 105A. Course Advisory: SCC minimum English and Math standards.</i> This course continues the basic skills practice and technical training from COSM 105A to qualify students for state licensure. It expands the knowledge of the practices, techniques, products, chemicals, laws and advanced procedures used in the current field of Esthetics. <i>Note:</i> Students will be required to purchase a mandatory equipment kit and materials card at the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. This class is not open to students who have completed COSM 104A or students enrolled in COSM 104B. <i>Five hours lecture, fifteen hours lab.</i>		Advanced Hairstyling <i>Prerequisite: Current California State Cosmetology License. Course Advisory: SCC minimum English standards.</i> Designed to provide licensed cosmetologist with advanced techniques in haircutting, hairstyling and make-up. Provides hands-on knowledge of the current trends released by the National Hairdresser's Association. Presents concepts and principles of newly established in the cosmetology industry. <i>Note:</i> Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester <i>One hour lecture, three hours lab.</i>	
COSM 110	1-3.5 Units	COSM 114	15 Units
Introduction to Cosmetology <i>Course Advisory: SCC minimum English standard</i> To acquaint students with cosmetology career opportunities and the industry options available. A survey of the concepts and processes utilized in the beauty industry. <i>Note:</i> Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. <i>Five hours lecture, twenty hours lab. (6 week course).</i>		Brush-up and/or Supplemental Training <i>Prerequisite: Completion of COSM 102 or its equivalent or current license number or expired California State license number, or a letter from the California State Board of Cosmetology identifying specific requirements of training for cosmetology licensure. Course Advisory: SCC minimum English standards.</i> Designed to meet the needs of cosmetologist who have deficiencies in theory or practice in the field of cosmetology. Assists cosmetologist who require additional training to qualify for better positions by upgrading skills. Preparatory training for cosmetologist who wish to renew their cosmetology license. <i>Note:</i> Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. <i>Five hours lecture, thirty hours lab.</i>	
COSM 111	2 Units		
Special Hair Processes <i>Prerequisite: Current California State Cosmetology License or COSM 100 (COSM 100 may be taken concurrently). Course Advisory: SCC minimum English standards.</i> This course is designed to teach theory and practice in the thermal and chemical processes used in the curling, straightening and waving of hair. <i>Note:</i> Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. <i>One hour lecture, three hours lab.</i>			

Cosmetology

COSM 115

13 Units

Cosmetology Instructor Training I

Prerequisites: *Current California Cosmetologist's license and completion of COSM 102 or 114. Course Advisory: SCC minimum English standards.* Presents cosmetology principles and techniques applied to instruction teaching methods. Designed for currently licensed cosmetologist who want to pursue a cosmetology instructor license through the California State Board of Barbering and Cosmetology. Focus is on the lesson planning, presentation methods, application techniques, evaluation processes and instruction materials. Provides the utilization of cosmetology processes to develop instruction performance criteria. State Board of Barbering and Cosmetology requires one experience within the last three years and completion of Cosm 102 or 114 within the last five years to be eligible for instructors licensing test. **Note:** Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. **Five hours lecture, twenty-four hours lab.**

COSM 116

8 Units

Cosmetology Instructor Training II

Prerequisite: *COSM 115. Course Advisory: SCC minimum English standards.* Continuation of Cosmetology 115 to give the student more sophistication in the development, implementation and evaluation of teaching methods. Focus is on laboratory practicum emphasizing curriculum activities utilizing lesson planning and teaching techniques. Provide the students with the opportunity to synthesize and utilize instructional knowledge and skills through classroom instruction presentations. Designed to prepare the student for the cosmetology instructor licensure examination for the California State Board of Barbering and Cosmetology. **Note:** Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. **Five hours lecture, fifteen hours activities.**

COSM 117

15 Units

Special Manicurist

Prerequisite: *None. Note: Not open to students who have completed COSM 171, 172, 173, or 174. Course Advisory: SCC minimum English standards.* Consists of four hundred (400) hours of intensive training and study. Designed to prepare the student for the California State Board Examination in Manicuring. Focus is on the essential knowledge and skills in all area of manicuring technology. Provide the opportunity for students to develop technical skills in providing nail care and artificial nail service to multiple clients in the patron laboratory. **Note:** Students are required to purchase an equipment kit and materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Students are required to attend the cosmetology orientation (see orientation statement in Schedule of Classes). Students must have completed the designated hours of practical training and technical instruction, the tenth (10th) grade, or its equivalent, and be 18 years of age to qualify for the manicurist license examination by the State Board of Barbering and Cosmetology. **Five hours lecture, thirty hours lab.**

COSM 118A

2 Units

Imaging System I

Prerequisite: *Successful completion of COSM 100 or currently licensed with the California Board of Barbering and Cosmetology.* Presents the basic concepts and uses of computerized imaging systems, including the study of theoretical principles of computerized hair styling and hair cutting for creating graphic images. **Note:** Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. **One hour lecture, three hours lab.**

COSM 118B

2 Units

Imaging System II

Prerequisite: *COSM 118A.* Presents the theory and use of computer imaging systems. An in-depth study of client consultation principles, color analysis, make-up application, and hair styling options as applied to creating graphic computer images. The students use the New Image System's Computer for creating total makeovers. **Note:** Students are required to purchase a materials card from the SCC Bookstore. **One hour lecture, three hours lab.**

COSM 150

7.5 Units

Basic Concepts in Cosmetology

Prerequisite: *Completion of the tenth grade or equivalent required by state law. Course Advisory: SCC minimum English standards.* Provides a format for students to study basic cosmetology issues of the industry and basic style trend changes. The first course in a two-course sequence which is equivalent to COSM 100. **Note:** First-time students will be required to attend the cosmetology orientation meeting and purchase a materials card from the SCC Bookstore at registration, in addition to the registration fees. The cost of the materials card and start-up material is in addition to the registration fees and varies. For current costs, please refer to the Schedule of Classes for each semester. To qualify for the cosmetology licensure examination as required by California State Board of Barbering and Cosmetology, students must have completed the designated license hours and requirements, completed the tenth grade or equivalent and be at least 18 years of age. Not open to students who have received credit for COSM 100. **Five hours lecture, thirty hours lab (9 week course).**

COSM 151

7.5 Units

Basic Concepts in Cosmetology

Prerequisite: *COSM 150. Course Advisory: SCC minimum English standards.* Provides a format for student to study more in depth issues of the industry and to examine theoretical and practical trend changes. The second course in a two-course sequence which is equivalent to COSM 100. Completion of the tenth grade or equivalent and 18 years of age to be eligible for cosmetology licensure examination as required by California State Board of Barbering and Cosmetology. Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Not open to students who have received credit for COSM 100. **Five hours lecture, thirty hours lab (9 week course).**

COSM 171

3 Units

Manicure Practices

Prerequisite: None. **Note:** Not open to students who have completed COSM 117. **Course Advisory:** SCC minimum English standards. Provides one hundred (100) hours of training and intensive study in various methodologies of nail care including water and European manicures, spa therapy massage and reflexology techniques, with emphasis on practical skills including client consultation, safety, and analysis of manicure cosmetics. First-time students enrolling in the Cosmetology-Manicuring class series 171, 172, 173, 174, 175 will be required to attend the cosmetology orientation meeting and purchase a materials card at registration in addition to the registrations fees (refer to the Schedule of Classes). Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Not open to students who have received credit for Cosmetology 117. *Five hours lecture, fifteen hours lab (5 week course).*

COSM 172

3 Units

Pedicure Practices

Prerequisite: None. **Note:** Not open to students who have received credit for COSM 117. **Course Advisory:** SCC minimum English standards. Provides one hundred (100) hours of training and intensive study in various techniques of pedicuring with emphasis on practical skills including foot care, sanitation and patron safety. First-time students enrolling in the Cosmetology-Manicuring class series 171, 172, 173, 174, 175 will be required to attend the cosmetology orientation meeting and purchase a materials card at registration in addition to the registrations fees (refer to the Schedule of Classes). Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Not open to students who have received credit for Cosmetology 117. *Five hours lecture, fifteen hours lab (5 week course).*

COSM 173

3 Units

Artificial Nails

Prerequisite: None. **Course Advisory:** SCC minimum English standards. Provides one hundred (100) hours of training and intensive study in artificial nail services including acrylic, tips, and nail wrap methodologies with emphasis on techniques and application skills, identification of artificial nail preparations as related to chemical and non-chemical changes. First-time students enrolling in the Cosmetology-Manicuring class series 171, 172, 173, 174, 175 will be required to attend the cosmetology orientation meeting and purchase a materials card at registration in addition to the registrations fees (refer to the Schedule of Classes). Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Not open to students who have received credit for Cosmetology 117. *Five hours lecture and fifteen hours lab (5 week course).*

COSM 174

3 Units

Nail Systems

Prerequisite: None. **Course Advisory:** SCC minimum English standards. Provides one hundred (100) hours of training in nail system concepts, practices, and principles, including nail strengthening and artificial extension, adhesive, non-adhesive, acrylic, and non-acrylic nails and practical applications of ergonomic techniques. First-time students enrolling in the Cosmetology-Manicuring class series 171, 172, 173, 174, 175 will be required to attend the cosmetology orientation meeting and purchase a materials card at registration in addition to the registrations fees (refer to the Schedule of Classes). Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Not open to students who have received credit for Cosmetology 117. *Five hours lecture and fifteen hours lab (5 week course).*

COSM 175

.5-3.5 Units

Cosmetology Education Practicum

Prerequisites: COSM 100, or 101, or 102, or 104A, or 104B, or 117, or 171, or 172, or 173, or 174. **Course Advisory:** SCC minimum English standards. Provides the application of theoretical skills to increase performance proficiencies and accrue the 400 hours as mandated by the State Board of Barbering and Cosmetology. Individuals who do not meet the minimum number of hours for license are to enroll according to the following scale: 50 hours = 0.5 units; 100 hours = 1.0 units; 150 hours = 1.5 unit; 200 hours = 2.0 units; 250 hours = 2.5 units; 300 hours = 3.0 units; 350 hours = 3.5 units. Students are required to have the mandatory books and equipment kit by the first class meeting. Students are required to purchase a materials card from the SCC Bookstore. The cost of the materials card and start-up materials varies. For current costs, please refer to the Schedule of Classes for each semester. Not open to students who have completed Cosmetology 103. *Three to five hours lecture, three to thirty-five hours lab (8 week course).*

Special Topics

These topics, numbered 148 are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcement of Special Topics courses appears in the Schedule of Classes.

Counseling

Counseling Division

PROGRAM DESCRIPTION

These courses are designed to assist students in making a successful adjustment to college, develop academic and career plans and goals, acquire learning skills, obtain job-seeking skills and employment, and develop interpersonal skills for life and work.

ASSOCIATE DEGREE

Not offered in this discipline.

COUNSELING

COUN 007

2 Units

College Study Techniques

Course Advisories: *Eligibility for ENGL 001 and SCC minimum math standard.* Designed to enhance existing study skills through the exploration and application of learning strategies in areas such as time management, notetaking, textbook reading, memory, and test-taking. The impact of student attitudes, motivation, and learning style on college success will also be examined. Students will be required to purchase a current Solano College catalog. *Two hours lecture.*

COUN 050

3 Units

Career-Life Planning

Course Advisories: *Eligibility for ENGL 001 and SCC minimum math standard.* A career planning and development course designed to assist students with personal assessment, career exploration and job seeking skills. In the context of studying the changes that occur during a typical life span, each student will construct a personal profile of current and projected interests, aptitudes, skills, main attitude, goals, personality, life choices and personal circumstances. Students will analyze the relationship between themselves, their life choices and the ongoing process of career planning and self-development throughout the life span. *Three hours lecture.*

COUN 055

3 Units

Valuing Diversity

Course Advisories: *Eligibility for ENGL 001 and SCC minimum math standard.* An examination of the complexities of interpersonal relationships among several cultures in our society including self-concept, values, beliefs, communication and lifestyle. This course will invite exploration of individual cultural perception in order to promote respect for differences and to develop a sense of community. Examination requirements include written essays and critical papers. *Three hours lecture.*

COUN 058

3 Units

Life Management

See Human Development 058.

COUN 060

2 Units

Strategies for Re-entry Success

Course Advisory: *SCC minimum English standards.* Designed to give students who are returning to school after some absence an introduction to and practice in, skills to successfully complete college-level studies. This course is intended to facilitate students' confidence in their abilities to succeed through: an introduction to academic skills and effective communication; assessment of campus, family, personal and financial resources; and an exploration of college goal choices. Also included are techniques to help students discover and overcome common barriers such as: fears, time constraints, family resistance and personal stressors. *Two hours lecture, one hour activity.*

COUN 061

2 Units

Math Without Fear

Course Advisory: *SCC minimum English standards.* A counseling course to help math-anxious students evaluate the causes of math anxiety, to develop interventions to reduce math fear, to review math skills and to explore a variety of mathematical concepts. *Three hours lecture.*

COUN 062

3 Units

Helping Skills: Creating Alliances and Facilitating Change

Course Advisories: *Eligibility for ENGL 001 and SCC minimum math standard.* Introduction to the basic helping skills that enable the student to build on alliance, effect change and empower others within a multicultural society. A helping model is introduced and helping skills such as attending, active listening, demonstrating empathy, assessment and referral are discussed, role played and applied in an experiential manner to a number of common challenges with a special emphasis on chemical dependency and depression. In addition, the pertinent legal and ethical guidelines of the professional helping relationship are presented, discussed and applied throughout the course. *Three hours lecture.*

<p>COUN 063 3-6 Units</p> <p>Field Work <i>Prerequisite: COUN 062. Course Advisories: Eligibility for ENGL 001 and SCC minimum math standard; HS 055 (or concurrent enrollment)(for Human Services Majors only).</i> A field work experience course designed to provide students with supervised experiential learning opportunities in a variety of community settings related directly to working in Human Services or other humanistic fields of study. This experience can be for pay or volunteer and students are expected to have established an approved placement by the end of the second week of class. The field experience will be combined with classroom lecture and discussion to promote continued career and helping skills development in order to become effective culturally sensitive professionals. May be repeated to a maximum of 12 units, including initial enrollment. <i>Two hours lecture and four to twelve hours weekly by arrangement.</i></p>	<p>COUN 098 3 Units</p> <p>Performance Enhancement <i>Course Advisories: SCC minimum English and Math standards.</i> Performance enhancement explores the psychological, social and physiological factors influencing optimal performance in life's endeavors including academics, performing arts, sports, interpersonal and business relationships. Performance enhancement topics include self care, life balance, confidence, arousal management, motivation, goal attainment, concentration, positive self talk, commitment, uses of imagery and visualization, active listening and demonstrating empathy. Students will design and apply their own Personal Performance Plan to a variety of performance arenas. <i>Three hours lecture.</i></p>
<p>COUN 068 2 Unit</p> <p>University Transfer Success <i>Course Advisories: SCC minimum English and Math standards.</i> A comprehensive study and analysis of the process of transferring from a community college to a 4-year college or university. The course presents an overview of the purposes of higher education, transfer strategies, detailed transfer requirements, transfer information resources, student support services, transitional issues, and the college application process. <i>Four hours lecture (8 week course).</i></p>	<p>COUN 101 .5 Unit</p> <p>Orientation for College Success <i>Course Advisories: SCC minimum English and Math standards.</i> Provides an in-depth orientation to college by introducing students to Solano Community College's student support services, describing certificate, associate degree, and transfer preparation and requirements, and by reviewing the College's academic expectations. Educational goal setting will also be introduced. Students will be required to purchase a current Solano College catalog. <i>Two hours lecture (4 week course).</i></p>
<p>COUN 071 1 Unit</p> <p>Student Athlete Academic Success Strategies <i>Course Advisory: SCC minimum English and Math standards.</i> Designed for the student athlete which addresses both the study skills necessary to succeed academically and the complex athletic eligibility requirements (COA/NCAA/NAIA) that govern present and future athletic competition. <i>Three hours lecture (6 week course).</i></p>	<p>COUN 102A .5 Unit</p> <p>Time Management & Goal Setting <i>Prerequisite: None. NOTE: Not open for credit to students who have completed COUN 007 with a grade of "C" or better. Course Advisories: SCC minimum English and Math standards.</i> Introduces time management concepts and techniques such as goal-setting, organizing, prioritizing and scheduling and emphasizes their practice and application to assist students to achieve their educational and career goals. Other COUN 102 courses may be taken concurrently with this course. <i>One hour lecture, three hours lab (4 week course).</i></p>
<p>COUN 083 3 Units</p> <p>Applied Psychology <i>Course Advisories: SCC minimum English and Math standards.</i> Applied approach to understanding the fundamental concepts of psychology as they relate to daily life. Topics include examining the methods of psychology, perception, behavior, memory, problem solving, development, motivation, emotions, adjustment, problem behavior, lifestyle, communication, and attitudes. <i>Three hours lecture.</i></p>	<p>COUN 102B .5 Unit</p> <p>Learning Styles and Life Skills <i>Prerequisite: None. NOTE: Not open for credit to students who have completed COUN 007 with a grade of "C" or better. Course Advisories: SCC minimum English and Math standards.</i> Introduces concepts and strategies of learning styles, self-esteem, managing emotion and overcoming barriers to learning. Emphasis is placed on practice and application to assist students to achieve their educational and career goals. Other COUN 102 courses may be taken concurrently with this course. <i>One hour lecture, three hours lab (4 week course).</i></p>

Counseling

COUN 102C

.5 Unit

Test Taking, Test Anxiety & Memory

Prerequisite: None. **NOTE:** Not open for credit to students who have completed COUN 007 with a grade of "C" or better. **Course Advisories:** SCC minimum English and Math standards. Introduces test taking, test anxiety and memory concepts and techniques and emphasizes their practice and application to assist students to achieve their educational and career goals. Other COUN 102 courses may be taken concurrently with this course. **One hour lecture, three hours lab (4 week course).**

COUN 102D

.5 Unit

Study Systems

Prerequisite: None. **NOTE:** Not open for credit to students who have completed COUN 007 with a grade of "C" or better. **Course Advisories:** SCC minimum English and Math standards. Introduces note-taking, reading and study environment concepts and strategies and emphasizes their practice and application to assist students to achieve their educational and career goals. Other COUN 102 courses may be taken concurrently with this course. **One hour lecture, three hours lab (4 week course).**

COUN 103

3 Units

Disability and Success

Course Advisories: SCC minimum English and Math standards. **Primarily for students with disabilities.**

This is an orientation course to assist students with disabilities in accessing services and completing their community college goals. It includes the SCC Disability Service Program, the College community, community agencies serving people with disabilities, laws and disabilities, coping with a disability, self advocacy, success in the classroom, and a final "Plan for Personal Disability Management." Students will receive a letter grade. Repeatable 1 time. **Three hours lecture.**

COUN 104

3 Units

Wellness and Maintaining Good Health

This course provides the tools, goals, and objectives, toward creating and maintaining good mental health. The course also addresses strategies for creating and maintaining health in the face of living with a chronic illness. Students will create their personal Wellness and Recovery Action Plan (WRAP) based on the concepts presented. This is a pass/no-pass only course. Repeatable 1 time. **Three hours lecture.**

COUN 148E

1 Unit

This is a transition course for high school seniors who are planning on entering the Community College system and receiving Disability Services. It includes the matriculation process of entering into college, the difference between college and high school for students with disabilities. Students will obtain a beginning understanding of how to navigate successfully through the Community College system and Disability Services. This is a pass/no-pass only course. **Two hours lecture.**

COUN 301 3 Units

Adaptive Personal Development Life Skills

Course Advisories: Primarily for students with disabilities.

This course introduces career and job awareness and readiness for students with a disability. It will cover career and job related, interests, aptitudes, and personality characteristics. Students will also develop an awareness of the strengths and difficulties with their disability in particular job related task analyses. Disability related community agencies, as well as disability benefits versus employment salaries will be covered. This is a pass/no-pass only course. Repeatable 1 time. **Three hours lecture.**

COUN 302

3 Units

Adaptive Personal Development Life Skills

Course Advisories: Primarily for students with disabilities.

This Adaptive Personal Development course will teach students methods to enhance their self esteem and self determination. Students will also learn disability awareness, a healthy life style, interpersonal relations, and independent living skills. This is a pass/no-pass only course. Repeatable 1 time. **Three hours lecture.**

COUN 348C

3 Units

Well-being for Life Skills

This is a well-being or health course primarily for students with disabilities who are transitioning into the community for the purpose of having a healthy approach to life for personal, family and career life skills. This is a pass/no-pass only course. **Three hours lecture.**

COUN 510

Non-Credit

Matriculation Assessment/Orientation

In a three-hour time frame, students will take a skills test in writing and reading, will be provided the results of that test, will be provided a preliminary indication of their English and math placement, and will be provided with a brief overview of the programs, services, policies, and procedures of Solano College. **A total of three hours by arrangement.**

Special Topics

These courses, number 048, 098 or 148 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.

LEARNING SKILLS

<p>LS 102 3 Units</p> <p>Learning Skills Strategies <i>Course Advisories: SCC minimum English and Math standards. Enrollment in other college courses recommended as strategies are applied to curricular materials.</i> Helps the student with cognitive learning and processing disabilities that is planning to transfer to a 4-year school. The student will learn to analyze, compare, think critically and select effective learning strategies to help them access college curricular materials. Throughout the semester, students will learn to develop their self-understanding and ability to advocate for effective accommodations in academic, work, and social settings. <i>Two hours lecture, two hours activity.</i></p>	<p>LS 301D 1 Unit</p> <p>Math Concepts and Strategies <i>Course advisory: SCC minimum English and Math standards.</i> This course is one in a series of four that helps students with cognitive processing disabilities. This course focuses on the conceptual framework of mathematics through manipulation of tactual, visual, auditory aids, skills/drill competence, and computer-assisted instruction. Embedded within the material are learning strategies dealing with all math courses. This is a credit/no-credit only course. <i>Two hours lecture, one hour activity (8 week course).</i></p>
<p>LS 301A 1 Units</p> <p>General Learning Strategies <i>Course Advisories: SCC minimum English and Math standards. Enrollment in other classes is strongly recommended as strategies are applied to curricular materials.</i> This course is one in a series of four that helps students with cognitive processing disabilities. It focuses on general learning strategies that help students customize test taking, note taking, time management, planning and organization to their specific educational limitations. This is a credit/no-credit only course. <i>Two hours lecture, one hour activity (8 week course).</i></p>	<p>LS 306A 3 Units</p> <p>Spelling Strategies Emphasizes special spelling techniques, computer-assisted instruction, and assistive-device instruction to help the student compensate for a specific spelling disabilities impacting his/her college courses. Covers phoneme awareness, morphograph analysis, and beginning rule applications to affixes and base words. The students also begin to learn compensatory strategies. This is a credit/no-credit only course. Repeatable 1 time NOTE: Combined enrollments in LS 306A and LS 306B may not exceed 3. <i>Three hours lecture.</i></p>
<p>LS 301B 1 Units</p> <p>Reading Strategies <i>Course Advisories: SCC minimum English and Math standards. Enrollment in other classes is strongly recommended as strategies are applied to curricular materials.</i> This course is one in a series of four that helps students with cognitive processing disabilities. This course focuses on strategies specific to reading needs. Students will learn to apply paraphrasing, questioning, pre-reading, vocabulary, and other strategies to help with their processing deficits. This is a credit/no-credit only course. <i>Two hours lecture, one hour activity (8 week course).</i></p>	<p>LS 306B 3 Units</p> <p>Spelling Strategies <i>Prerequisite: LS 306A.</i> Emphasizes special spelling techniques, computer-assisted instruction, and assistive-device instruction to help the student compensate for specific spelling disabilities impacting his/her college courses. Continues with additional morphograph analysis, new rule applications, and concentration on compensatory strategies, greater emphasis on written application. This is a credit/no-credit only course. Repeatable 1 time NOTE: Combined enrollments in LS 306A and LS 306B may not exceed 3. <i>Three hours lecture.</i></p>
<p>LS 301C 1 Unit</p> <p>Writing Strategies <i>Course advisory: SCC minimum English and math standards; student advised to meet with DSP counselor and instructor prior to enrollment. Student advised to take other non-Learning Skills courses.</i> This course is one in a series of four that helps students with cognitive processing disabilities. This course focuses on alternative strategies to become skillful in sentence writing, paragraph writing, error monitoring and theme writing to access their college classes. This is a credit/no-credit only course. <i>Two hours lecture, one hour activity (8 week course).</i></p>	<p>LS 307 3 Units</p> <p>Reading for Life Skills <i>Course advisory: Primarily for students with disabilities.</i> This reading course is written specifically for basic level readers to address their need to understand the printed material they encounter in everyday situations. The reading involves practical life skills materials such as the newspaper, job applications, work place, supermarket, restaurant, department store, directories and guides, personal health, nutrition, and grooming, bills, and much more. This is a pass/no-pass course only. Repeatable 1 time. <i>Three hours lecture.</i></p>
	<p>LS 312 1 Unit</p> <p>Computer Tools For Accessibility <i>Course Advisories: SCC minimum English and math standards and concurrent enrollment in a non-Learning Skills course.</i> Designed especially for the student with cognitive disabilities offering a variety of problem-solving solutions that include fundamental processing routines, academic skills solutions and productivity solutions. Students learn to be more successful in other college courses by integrating computers, software, and assignment requirements. This is a credit/no-credit only course. May be repeated to a maximum of 3 units, including initial enrollment. <i>One hour lecture, two hours lab.</i></p>

Counseling

LS 313

1 Unit

Assistive Computer Technology I

Course Advisories: *SCC minimum English and Math standards.* A course for disabled students wishing to learn how to use assistive computer programs and hardware in academic and employment environments. Students will master the procedures for a configuration of assistive devices designed to overcome the limitations of their particular disabilities. May be repeated to a maximum of 6 units, including initial enrollment. *Two hours lecture, two hours activity (8 week course).*

LS 315

1 Unit

Assistive Computer Technology II

Prerequisite: *LS 313.* **Course Advisories:** *SCC minimum English and Math standards.* The second of a two course sequence for disabled students wishing to learn how to use assistive computer programs and hardware in academic and employment environments. Students will master the procedures for a configuration of assistive devices designed to overcome the limitations of their particular disabilities. May be repeated to a maximum of 6 units, including initial enrollment. *Two hours lecture, two hours activity (8 week course).*

LS 348A

.5 Units

LD Studies

Prerequisite: *Permission of LD Coordinator based on screening criteria indicating a learning disability.* Student meets with Learning Specialist/Coordinator for initial intake. Student then meets individually with a learning specialist to complete the California Assessment System for Adults with Learning Disabilities. Course completed when all required components are completed. This is an open-entry/open-exit, only course. This is a pass/no-pass only course. *Two hours by arrangement.*

LS 348C

3 Units

Math for Life Skills

Course Advisory: *Primarily for students with disabilities.* This course will teach students the ability to solve math problems from everyday life situations. Students will decide to apply either addition, subtraction, multiplication, or division to everyday life situations. They will also learn the use of decimals, percents, and fractions in practical applications. The use of the calculator will be taught as an additional tool for life skills math. This course is not meant to prepare students for advancement to higher level math courses at the college. This is a pass/no-pass only course. *One hour lecture, and two hours lab.*

LS 348D

1 Unit

Adaptive Basic Computer Skills

Course Advisory: *Primarily for students with disabilities.* A basic skills computer course primarily for students with disabilities. Students will learn disability-specific assistive computer technology and learn basic computer operations for everyday life. This is a pass/no-pass only course. *Three hours lecture.*

LS 350

3 Units

Learning Skills Assessment

Course Advisory: *Eligibility for ENGL 305.* This course is designed to help students know their academic strengths and weaknesses, help students discover their study and learning strategy style, and if necessary, individually assess for a Learning Disability. Through reading, class activities, surveys, questionnaires, and assessment measures the student develops strategies that lead to proactive skills that help them become a more successful college student. *Three hours lecture and two hours weekly by arrangement.*

Special Topics

These courses, numbered 148 or 348, are designed to help students with specific learning disabilities and/or skills deficiencies. Announcements of Special Topic courses will appear in the Schedule of Classes.

TUTORING

TUTR 050

.5 Unit

Tutoring Practicum

Prerequisites: Completion with a grade of "B" or better in the subject to tutor, instructor recommendation, permission of Tutoring Center personnel after verification of prerequisites, and concurrent assignment as a Tutoring Center or in-class tutor. Provides supervised practice in tutoring, examines the basics of learning principles, communication, listening skills, effective tutoring techniques and is required for all students who work or volunteer in the Tutoring Center. *Eight hours lecture (1 week course).*

TUTR 500

Non-Credit

Supervised Tutoring

Prerequisites: *Recommendation by the course instructor or a counselor, permission of the Tutoring Center Supervisor to verify prerequisite, and concurrent enrollment in course or courses in which tutoring assistance is being requested.* Provides academic support through content reinforcement and course-related materials. Peer tutors are assigned to individuals or small groups; the tutoring will take place in the Tutoring Center and the tutoring sessions are supervised by a credentialed instructor. Repeatable 6 times. This is an open entry/open exit course. *One-half to three hours weekly by arrangement.*

CRIMINAL JUSTICE, CORRECTIONS

PROGRAM DESCRIPTION

This program offers core and selective courses which provide the student with a base of knowledge and proficiencies in the area of corrections. The program operates with the cooperation and participation of local corrections agencies. All instructors in the program have experience in the corrections field. Courses are scheduled both day and evening to accommodate full-time or part-time students seeking to acquire or upgrade skills in the corrections field.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

The Certificate of Achievement can be obtained upon completion of the 30-unit major listed below. The Associate in Science Degree can be obtained upon completion of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units	Select six (6) units from the following:	Units
CJ 001—Intro. to Crim. Justice	3	CJ 057—Crim. Justice Career Dev.	3
CJ 002—Concepts of Criminal Law	3	CJ 060—Probation and Parole	3
CJ 011—Community Relations	3	CJ 061—State & Local Correct. Inst.	3
CJ 051—Criminal Investigation	3	CJ 062—Legal Aspects of Corr.	3
CJ 052—Investigative Report Writing	3	CJ 091—Voc. Work Experience: Correct.	1-3
CJ 053—Legal Aspects of Evidence	3		
CJ 058—Fund. of Crime & Delinquency	3	Recommended Electives	
CJ 059—Interviewing & Counseling	3	CIS 002 & 050	
Electives selected from the following list	<u>6</u>	COUN 062, 063	
	30	ENGL 004, 051	
		HUMN 003	
		HS 051, 053	
		OCED 090, 091	
		OT 054, 055	
		SOCS 022, 030	
		SPCH 010	
		SPAN 001, 002	

CRIMINAL JUSTICE, LAW ENFORCEMENT

PROGRAM DESCRIPTION

This program was established with the cooperation of the Solano County Criminal Justice Advisory Committee and offers courses for both pre-service and in-service students. All instructors have experience in law enforcement, and courses are scheduled day or evening to accommodate full-time and part-time students seeking to acquire or upgrade skills in the field.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

The Certificate of Achievement can be obtained upon completion of the 30-unit major listed below. The Associate in Science Degree can be obtained upon completion of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

Criminal Justice

CRIMINAL JUSTICE, LAW ENFORCEMENT (CONTINUED)

REQUIRED COURSES

	Units
CJ 001—Intro. to Crim. Justice	3
CJ 002—Concepts of Criminal Law	3
CJ 011—Community Relations	3
CJ 051—Criminal Investigation	3
CJ 052—Investigative Report Writing	3
CJ 053—Legal Aspects of Evidence	3
CJ 058—Fundamentals of Crime and Delinquency	3
CJ 059—Interviewing & Counseling	3
Electives selected from the following list	6
	30
Select six (6) units from the following:	
CJ 050—Substantive Law	3
CJ 054—Patrol Procedures	3
CJ 055—Traffic Control	3
CJ 056—Juvenile Procedures	3

Select six units (continued)

Units CJ 057—Criminal Justice Career Dev.	3
CJ 064—Prin. & Procedures/C J System	3
CJ 090—Voc. Work Exper:Law Enforcement	1-3

Recommended Electives

CIS 002 & 050
ENGL 004, 051
OCED 090, 091
OT 054, 055
SOCS 022
SPAN 001, 002

CJ 001 3 Units

Introduction to Criminal Justice

Course Advisories: *SCC minimum English and Math standards.* Introduction to Criminal Justice presents an overview of informal and formal means of social control. It is a study of the history, evolution, philosophy, structure, operation and role of the criminal justice system and its component sub-systems (law enforcement, courts, corrections). It also explores the history of the U.S. Constitution and application of constitutional principles; theories of crime causation and criminal behavior. Another component of this course is the study of professional ethics, education and training for professionals in the criminal justice system. Required for all Criminal Justice majors. *Three hours lecture.*

CJ 002 3 Units

Concepts of Criminal Law

Course Advisories: *SCC minimum English and Math standards; CJ 001.* A study of the history, philosophy and development of law and various legal systems; case law and legal research; corpus delicti, mental elements, capacity to commit crimes, and defenses; classification of crimes and penalties; elements of major crimes. *Three hours lecture.*

CJ 011 3 Units

Community Relations

Course Advisories: *SCC minimum English and Math standards.* An exploration of actual and perceived special roles of criminal justice agencies and individual practitioners; interrelationships and role expectations of criminal justice practitioners and various individuals and groups; propaganda and pressure groups. Principal emphasis will be placed upon the development of the professional image of the criminal justice system and upon development of positive relationships between members of the criminal justice system and the public. *Three hours lecture.*

CJ 050 3 Units

Substantive Law

Course Advisories: *CJ 002; SCC minimum English and Math standards.* A detailed study of statutory law and corollary case law commonly used by criminal justice practitioners, with emphasis on California Penal, Welfare and Institutions, Vehicle, and Business and Professions Codes. *Three hours lecture.*

CJ 051 3 Units

Criminal Investigation

Course Advisories: *SCC minimum English and Math standards; CJ 001.* Fundamentals of investigation, crime scene search and recording, collection and preservation of evidence, scientific aid; interviews and interrogation, follow-up and case preparation. *Three hours lecture.*

CJ 052 3 Units

Investigative Report Writing

Course Advisory: *Eligibility for ENGL 001; CJ 001; CJ 002; CJ 051.* Presents investigative report writing in criminal justice relative to police, probation, institutional and parole activities. Includes practical experience in preparing field notes, statements, and reports. *Three hours lecture.*

CJ 053 3 Units

Legal Aspects of Evidence

Course Advisories: *SCC minimum English and Math standards; CJ 001.* A study of the origin, development, philosophy and constitutional basics of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies. *Three hours lecture.*

Criminal Justice

CJ 054 Patrol Procedures <i>Course Advisories: SCC minimum English and Math standards; CJ 001.</i> Presents the responsibilities, techniques and methods of modern police patrol. <i>Three hours lecture.</i>	3 Units	CJ 061 State and Local Correctional Institutions <i>Course Advisories: SCC minimum English standards; CJ 058.</i> Provides theoretical and practical methods and solutions for achieving effectiveness in the various leadership correctional institutional programs. <i>Three hours lecture.</i>	3 Units
CJ 055 Traffic Control <i>Course Advisories: SCC minimum English and Math standards; CJ 001.</i> A study of traffic law enforcement, regulations and control; fundamentals of traffic accident investigation, and an overview of the California Vehicle Code. <i>Three hours lecture.</i>	3 Units	CJ 062 Legal Aspects of Correction <i>Course Advisories: SCC minimum English and Math standards; CJ 058.</i> Presents the legal aspects of corrections and code provisions relative to all phases of the correctional system. <i>Three hours lecture.</i>	3 Units
CJ 056 Juvenile Procedures <i>Course Advisories: SCC minimum English and Math standards; CJ 001.</i> Presents the organization, function, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures. <i>Three hours lecture.</i>	3 Units	CJ 064 Principles and Procedures of the Criminal Justice System <i>Course Advisories: SCC minimum English and Math standards; CJ 001.</i> Detailed study of the role and responsibility of each sub-system within the criminal justice system; an examination of the philosophy, history, structure, operation and interrelation of each sub-system component; a description of procedure from initial entry of the individual into the system to the final disposition. <i>Three hours lecture.</i>	3 Units
CJ 057 Criminal Justice Career Development <i>Course Advisories: SCC minimum English and Math standards; CJ 001.</i> Examines criminal justice career positions, employment standards and current occupational opportunities in the field. Includes practical aspects of various jobs and provides information and practice in entrance examination taking, oral interviews, and general preparation for various occupations within the criminal justice field. <i>Three hours lecture.</i>	3 Units	CJ 090 Vocational Work Experience: Law Enforcement <i>Course Advisory: CJ 001.</i> Volunteer service in a variety of governmental and private criminal justice agencies related to Law Enforcement. One (1) unit of credit may be earned for each 75 hours paid or 60 hours unpaid work per semester to a maximum of 3 units per semester. Students enrolled in CJ 090 may not enroll in CJ 091 during the same semester. This is a pass/no-pass only course. May be repeated to a maximum of 12 units, including initial enrollment. NOTE: Combined units for all work experience courses shall not exceed 12. <i>One hour lecture and five to twenty hours weekly by arrangement.</i>	1-3 Units
CJ 058 Fundamentals of Crime and Delinquency <i>Course Advisories: SCC minimum English and Math standards; CJ 001.</i> Introduction to major types of criminal behavior, patterns of career offenders, factors which contribute to the production of criminality of delinquency. Includes methods used in dealing with violators in the justice system; the changing roles of police courts and after-care process of sentence, probation, prisons, and parole; changes of the law in crime control and treatment processes. <i>Three hours lecture.</i>	3 Units	CJ 091 Vocational Work Experience: Corrections <i>Course Advisory: CJ 001.</i> Volunteer service in a variety of governmental and private criminal justice agencies related to Corrections. One (1) unit of credit may be earned for each 75 hours paid or 60 hours unpaid work per semester to a maximum of 3 units per semester. Students enrolled in CJ 091 may not enroll in CJ 090 during the same semester. This is a pass/no-pass only course. May be repeated to a maximum of 12 units, including initial enrollment. NOTE: Combined units for all work experience courses shall not exceed 12. <i>One hour lecture and five to twenty hours weekly by arrangement.</i>	1-3 Units
CJ 059 Interviewing and Counseling <i>Course Advisories: SCC minimum English and Math standards; CJ 001.</i> Overview of the interviewing and counseling techniques available to practitioners in law enforcement, the courts, and corrections emphasizing communication and practical skills. <i>Three hours lecture.</i>	3 Units	Special Topics These courses, numbered 098, 148, 248, 548, depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.	
CJ 060 Probation and Parole <i>Course Advisories: SCC minimum English and Math standards; CJ 001; CJ 058.</i> Presents the philosophy and history of correctional services. A survey of the correctional sub-systems of institutions by type and function, probation concepts and parole operations. A discussion of correctional employee responsibilities as applied to offender behavior modifications through supervisory control techniques. Covers rehabilitation goals as they affect individual and intimate cultural groups in both confined and field settings. <i>Three hours lecture.</i>	3 Units		

Drafting Technician

Career Technical Education Division

PROGRAM DESCRIPTION

This program is designed to provide students with entry level skills in the fields of mechanical, electrical, civil and architectural drafting.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon completion of the 30-unit major listed below. The Associate in Science Degree can be obtained by completing a total of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

	Units
DRFT 045—Introduction to CAD	3
DRFT 046—Advanced CAD	3
DRFT 050—Basic DRFTing	3
DRFT 055—Mechanical Drafting I	3
DRFT 060—Architectural Drafting I	3
DRFT 075—Electronic Drafting	3
DRFT 080—Civil Drafting I	3
IT 140—Industrial Materials	3
IT 151—Vocational Math	3
DRFT 125—Solid Modeling	3
	<u>30</u>

Recommended Electives

DRFT 056, 057, 065, 070, 079, 085, 092, 130, 135, 140
INTDS 52
IT 150
OCED 090, 091
HORT 030

NOTE: Many of the advanced courses will require CAD. It is important to take DRFT 045 (Intro. to CAD) as early in your program as possible. College credit may be obtained with credit by examination in DRFT 045, 050, and 060 or they may be waived.

JOB-DIRECT CERTIFICATE REQUIREMENTS

All courses must be completed with a grade of "C" or better.

Drafting Technology	Units
DRFT 171—Autocad Drafting Tech. I	3
DRFT 172—Autocad Drafting Tech. II	3
DRFT 173—Autocad Drafting Tech. III	3
DRFT 174—Autocad Drafting Tech. IV	3
*OCED 090—Occupational Work Experience	1
	<u>13</u>

*Students will be required to complete 80 hours of cooperative supervised work experience to receive credit.

DRFT 045	3 Units
Introduction to Computer-Aided Drafting (CAD)	
<i>Course Advisory: SCC minimum English and math standards; DRFT 050; drafting experience helpful.</i> Designed to introduce the drafting student to CAD technology and terminology. The student shall complete a series of related drawing problems using a CAD work station. Repeatable 1 time. Two hours lecture, four hours lab.	

DRFT 045A *	1.5 Units
Introduction to Computer-Aided Drafting (CAD)-Part 1	
<i>Course Advisories: SCC minimum English and Math standards. DRFT 050 or drafting experience helpful.</i> Designed to introduce the drafting student to CAD technology and terminology. The student shall complete a series of related drawing problems using a CAD work station. Repeatable 1 time. One hour lecture, two hours lab. (*UC transferability pending)	

Drafting

DRFT 045B * Introduction to Computer-Aided Drafting (CAD)-Part 2 <i>Course Advisories: SCC minimum English and Math standards. DRFT 050 or drafting experience helpful.</i> Designed to introduce the drafting student to CAD technology and terminology. The student shall complete a series of related drawing problems using a CAD work station. Repeatable 1 time. <i>One hour lecture, two hours lab. (*UC transferability pending)</i>	1.5 Units	DRFT 056 Descriptive Geometry <i>Prerequisites: DRFT 050; IT 151; DRFT 045. Course Advisories: SCC minimum English and Math standards.</i> Presents fundamental principles of descriptive geometry and their application to the solution of three dimensional problems. Included are true lengths and shapes; bearing and slopes; point, line and shape problems, advanced auxiliaries, revolutions, intersections and developments. <i>Two hours lecture, four hours lab.</i>	3 Units
DRFT 046 Advanced Computer-Aided Drafting (CAD) <i>Prerequisite: DRFT 045 and DRFT 050. Course Advisories: SCC minimum English and Math standards.</i> Designed to develop advanced proficiency in CAD. Covers symbol libraries, isometrics, external references (XREFS), 3-D drawing, basic solid modeling, tables and customization techniques. Repeatable 1 time. <i>Two hours lecture, four hours lab.</i>	3 Units	DRFT 057 Mechanical Drafting Level II <i>Prerequisites: DRFT 055 with a grade of "C" or better; IT 151 (may be taken concurrently). Course Advisories: SCC minimum English and Math standards.</i> A continuation of Drafting 055, with special emphasis on geometric tolerancing, gears, cams, electro-mechanical packaging, and advanced working drawings. <i>Two hours lecture, four hours lab.</i>	3 Units
DRFT 046A * Advanced Computer-Aided Drafting (CAD)-Part 1 <i>Prerequisites: DRFT 045 (or DRFT 045B) and DRFT 050. Course Advisories: SCC minimum English and Math standards.</i> Designed to develop advanced proficiency in CAD. Covers symbol libraries, isometrics, external references (XREFS), 3-D drawing, basic solid modeling, tables and customization techniques. Repeatable 1 time. <i>One hour lecture, two hours lab. (*UC transferability pending)</i>	1.5 Units	DRFT 060 Architectural Drafting I <i>Prerequisites: DRFT 050, DRFT 045. Course Advisories: SCC minimum English and Math standards.</i> Practice in drawing a complete set of plans for a single family dwelling in accordance with local building regulations. Includes an introductory unit on heat loss computations. Recommended for non-majors and drafting majors. <i>Two hours lecture, four hours lab.</i>	3 Units
DRFT 046B * Advanced Computer-Aided Drafting (CAD)-Part 2 <i>Prerequisites: DRFT 046A. Course Advisories: SCC minimum English and Math standards.</i> Designed to develop advanced proficiency in CAD. Covers symbol libraries, isometrics, external references (XREFS), 3-D drawing, basic solid modeling, tables and customization techniques. Repeatable 1 time. <i>One hour lecture, two hours lab. (*UC transferability pending)</i>	1.5 Units	DRFT 065 Architectural Drafting II <i>Prerequisites: DRFT 060 with a grade of "C" or better; IT 151 (IT 151 may be taken concurrently). Course Advisories: SCC minimum English and Math standards.</i> Introduction to the trade terms, detailing and basic construction practices related to light commercial design and delineation. <i>Two hours lecture, four hours lab.</i>	3 Units
DRFT 050 Basic Drafting <i>Course Advisories: SCC minimum English and Math standards.</i> Presents the fundamentals of drafting, including the use of instruments, lettering, freehand sketching, orthographic projection, dimensioning and sectioning. Recommended for non-majors and drafting majors. <i>Two hours lecture, four hours lab.</i>	3 Units	DRFT 068 CAD In Apparel Design See Fashion Design 068.	3 Units
DRFT 055 Mechanical Drafting Level I <i>Prerequisite: DRFT 050, DRFT 045. Course Advisories: SCC minimum English and Math standards.</i> Emphasizes sectioning, pictorials, threads, fasteners, springs, tolerancing, measurement, and working drawings. <i>Two hours lecture, four hours lab.</i>	3 Units	DRFT 070 Technical Illustration and Design <i>Prerequisite: DRFT 050, DRFT 045. Course Advisory: SCC minimum English and Math standards.</i> Designed for advanced drafting students to develop the basic tools, skills and concepts required in the field of engineering illustration. Includes freehand sketching and pencil shading. CAD drawings include isometric, perspective assembly, photo-tracing and cut-away drawings. <i>Two hours lecture, four hours lab.</i>	3 Units

Drafting

DRFT 075 Electronic Drafting <i>Prerequisites: DRFT 050, DRFT 045. Course Advisory: SCC minimum English and Math standards.</i> Designed for drafters to develop skill in reading and drawing plans related to electronics. Topics include, terminology, component identification, schematic symbols, cable drawings, electro-mechanical design, and basic printed circuit board design. Two hours lecture, four hours lab.	3 Units	DRFT 130 Advanced Printed Circuit Board Design <i>Prerequisite: DRFT 075. Course Advisories: SCC minimum English and Math standards.</i> The student will learn how to design complex circuit boards from schematic layout to artwork generation. Course requires completion of a complete set of drawings for a printed circuit board, including proper documentation, all based on industry standards. Through-hole and surface mount technology are studied. Two hours lecture, four hours lab.	3 Units
DRFT 079 Blueprint Reading <i>Course Advisories: SCC minimum English and Math standards.</i> Designed to provide understanding and interpretation of a variety of blueprints. Emphasizes the ability to recognize and identify modern industrial blueprints and architectural blueprints. Includes basic development of freehand sketching abilities. Three hour lecture, one hour lab.	3 Units	DRFT 135 Structural and Detail Drafting <i>Course Advisories: SCC minimum English and Math standards.</i> Provides a basic introduction to structural detailing. Covers basic terminology, shapes, types of connections, types of views, scaling and proportion, bills of materials and lettering, plus some detailing problems. Five hours lecture, two hours weekly by arrangement (3 week course).	1 Unit
DRFT 080 Civil Drafting I <i>Prerequisites: DRFT 050, DRFT 045. Course Advisory: SCC minimum English and math standards; IT 151 recommended.</i> Introductory course in civil drawing with emphasis on land division, breakdown of survey notes, office procedures and related math computations. Included is an introductory unit on modern CAD applications, as applied to preliminary and final maps. Two hours lecture, four hours lab.	3 Units	DRFT 140 Surveying <i>Prerequisites: DRFT 080, IT 151. Course Advisory: SCC minimum English and Math standards.</i> Presents the fundamentals of plane surveying with practice in the field using tape, levels, transit and theodolite. Two hours lecture, four hours lab.	3 Units
DRFT 085 Civil Drafting II <i>Prerequisites: DRFT 080, IT 151. Course Advisory: SCC minimum English and Math standards.</i> Designed for the advanced civil drafting student with emphasis on computer programs and experience compatible with the industry standards. Includes the study of plan and profile, cross-section and earth-work calculations. Two hours lecture, four hours lab.	3 Units	DRFT 150 Computer Graphics for Non-Drafters <i>Course Advisory: SCC minimum English standards.</i> Provides the opportunity for the non-drafting major to explore the creation of graphic images using the PC as a tool. One hour lecture, three hours lab (8 week course).	1 Unit
DRFT 092 Special Problems <i>Prerequisite: DRFT 050.</i> Individualized projects for advanced students who demonstrate competency to carry out individual work. Repeatable 3 times. Three to nine hours weekly by arrangement.	1-3 Units	DRFT 171 AutoCAD Drafting Technician I <i>Course Advisories: SCC minimum English and Math standards.</i> Introduces the drafting student to CAD technology, utilization and terminology. The student will complete a series of related drawing problems using a CAD work station. Six hours lecture, eighteen hours lab (5 week course).	3 Units
DRFT 125 Solid Modeling with Solidworks <i>Course Advisory: SCC minimum English and math standards; DRFT 050 or knowledge of drafting concepts.</i> This course is designed to teach the basic concepts and skills necessary to create, view, and manipulate objects in three dimensional space using Solidworks software. Repeatable 1 time. Two hours lecture, four hours lab.	3 Units	DRFT 172 AutoCAD Drafting Technician II <i>Prerequisite: DRFT 171. Course Advisories: SCC minimum English and Math standards.</i> Introduces drafting students to architectural and mechanical drafting elements through CAD utilization. The student will complete a series of related drawing problems using a CAD work station. Six hours lecture, eighteen hours lab (5 week course).	3 Units

DRFT 173 3 Units

AutoCAD Drafting Technician III

Prerequisite: DRFT 172. Course Advisories: SCC minimum English and Math standards. Introduces drafting students to fasteners, dimensioning and pictorial representation through CAD processes . The student will complete a series of related drawing problems using a CAD work station. *Six hours lecture, eighteen hours lab (5 week course).*

DRFT 174 3 Units

AutoCAD Drafting Technician IV

Prerequisite: DRFT 173. Course Advisories: SCC minimum English and Math standards. Introduces drafting students to section views and details; descriptions and supplemental drawings. The student will complete a series of related drawing problems using a CAD work station. *Six hours lecture, eighteen hours lab (5 week course).*

Special Topics

These courses, numbered 098, or 148 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Specific information will vary with each course.

Early Childhood Education

(For Dramatic Arts see "Theatre Arts")

Fine & Applied Arts/Behavioral Sciences Division

PROGRAM DESCRIPTION

This program prepares students to meet the new and stringent demands of today's child care centers, preschool programs, and nursery schools. It offers a comprehensive study of the development of the young child as well as opportunities to learn techniques to enhance the emotional, physical, social, and cognitive needs of the child.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained upon successful completion of the 32-unit major with a grade of C (2.0) or better in each course. The Associate in Science degree can be obtained by completing a total of 60 units, including the major, the general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

Students should enroll in HUDV 038 during their first semester in the program. Students will spend their first semester of ECE Practicum I (ECE 065) assigned to the Solano College Children's Program or placed off campus with an accepted mentor teacher. A second semester may be spent either on campus (ECE 066 or 067) or off campus (ECE 067). Off campus placements will be made with an approved mentor teacher. Prior to the first week of enrollment in ECE 065 or 066, students will be required to be fingerprinted at District expense.

	Units	
ECE 062—Intro. to Early Childhood Ed	3	
ECE 063—ECE Theory & Practice	3	Recommended Electives
ECE 065—ECE Practicum I	4	ECE 079, 099, 101, 102, 110, 121, 122,
ECE 066—ECE Practicum II OR		123, 124
ECE 067—ECE Field Practice	4	HUDV 040, 053
ECE 070—Science for Early Childhood	3	NUTR 010, 051, 052
ECE 071—Language/Literature for ECE	3	OCED 090, 091
ECE 072—Art for Early Childhood	3	PSYC 001
ECE 073—Music for Early Childhood	3	SOCS 022
HUDV 038—Child Development	3	SOC 001
HUDV 050—Child, Family & Community	3	
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Students enrolling in the following courses are strongly urged to see an ECE instructor prior to registration.

ECE 050 **3 Units**
Violence and Its Impact on Children and Their Families
Course Advisories: SCC minimum English and math standards.
 Exploration of violence in America and its impact on the physical and psychological well-being of children, their families and early childhood teachers. Emphasis on critical factors in understanding appropriate early childhood violence prevention and intervention strategies. *Three hours lecture.*

ECE 051 **3 Units**
Introduction to Intervention and Strategies for Children and Their Families
Course Advisories: SCC minimum English and math standards.
 Provides early childhood teachers knowledge and skills to respond to the needs of children and families who experience stress and chronic violence through exploration of the power of play in helping children resolve conflicts and methods for teaching alternative to violence. *Three hours lecture.*

ECE 055 **.5 or 1 Unit**
Key Concepts in Early Childhood
Course Advisory: SCC minimum English standards. Focuses on those aspects of young children's normal behavior and needs which have the greatest significance for adults studying children in a preschool setting. May be repeated to a maximum of 1 unit, including initial enrollment. *One-half or one hour lecture.*

Early Childhood Education

ECE 062	3 Units	ECE 067	4 Units
Introduction to Early Childhood Education <i>Prerequisite: HUDV 038 (may be taken concurrently). Course Advisories: SCC minimum English and math standards.</i> An introduction to teaching at the preschool level including: history, philosophy, techniques of guidance, teaching techniques and skills, schedules and programming routines, provision of a safe environment, the function and stages of play, and an overview of important developmental processes. Three hours lecture.		Early Childhood Education Field Practice <i>Prerequisites: ECE 063 (may be taken concurrently) and ECE 065. Course Advisories: SCC minimum English and Math standards.</i> Work experience at an approved early childhood job site under the direct supervision of a fully qualified nursery school teacher (preferably under the supervision of one of the SCC selected mentor teachers), and attendance at a one-hour weekly seminar on campus which emphasizes child observation, curriculum planning, and relationships of theories to practices. NOTE: Combined units for all work experience courses shall not exceed 12 units. One hour lecture (related seminar), twenty hours weekly by arrangement (work experience).	
ECE 063	3 Units	ECE 070	3 Units
Early Childhood Education Theory and Practice <i>Prerequisite: ECE 062 and HUDV 038. Course Advisories: SCC minimum English and Math standards.</i> Continues the introduction to early childhood teaching begun in ECE 062 with the focus on the content of the early childhood curriculum areas of art, music, science, math, dramatic play, motor development and language and academic skills. Students practice techniques of curriculum planning by preparing lesson plans in each of these areas. Three hours lecture.		Science for Early Childhood <i>Prerequisite: HUDV 038 (may be taken concurrently) and ECE 062. Course Advisories: SCC minimum English and math standards.</i> Exploration of scientific principles, materials, and information from the biological and physical sciences appropriate for young children. Through an emphasis on the choice and presentation of appropriate concepts and processes, students acquire basic science knowledge relevant to the intellectual development of the young child. Three hours lecture.	
ECE 065	4 Units	ECE 071	3 Units
Early Childhood Education Practicum I <i>Prerequisites: ECE 062 or concurrent enrollment.</i> During the first week of enrollment, students will be required to be fingerprinted and have a TB test at District expense. Course Advisory: SCC minimum English standards. Supervised laboratory experience with children in the Solano College Children's Programs or off-campus placement with a mentor teacher selected by the SCC mentor selection committee for nine hours per week and attendance at a one-hour weekly seminar which emphasizes child observation, guidance techniques, and relationship of theories to practices. One hour lecture, nine hours by arrangement.		Language and Literature for ECE <i>Prerequisites: ECE 062 (may be taken concurrently) and HUDV 038. Course Advisory: SCC minimum English standards.</i> Introduction to children's literature and to the development of speech and language during infancy and early childhood. Students will explore teaching techniques which promote language acquisition including story telling, role play, language games, flannel board stories, puppets, slide shows, and the development of dramatic play materials. Three hours lecture.	
ECE 066	4 Units	ECE 072	3 Units
Early Childhood Education Practicum II <i>Prerequisites: ECE 065 and concurrent enrollment in ECE 063.</i> During the first week of enrollment, students will be required to be fingerprinted and have a TB test at District's expense. Course Advisories: SCC minimum English and math standards. Laboratory practicum emphasizing curriculum activities, comprehensive case studies, methods of child observation, and relationships of theories to practices. Students may be placed in the Solano College Children's Programs on campus or with a mentor teacher (selected by the SCC/ECE mentor teacher selection committee) off campus. One hour lecture, nine hours by arrangement.		Art for Early Childhood <i>Course Advisories: SCC minimum English and Math standards.</i> Study of art activities appropriate to the developmental needs of the young child. Emphasis is on children's use of art as a way to express their individuality and communicate their ideas about themselves and their world. Three hours lecture.	
		ECE 073	3 Units
		Music for Early Childhood <i>Course Advisories: ECE 062; SCC minimum English and Math standards.</i> Presents a curriculum of music appropriate for teachers of young children from infancy through the primary grades. Fundamentals of music and simple chording techniques will be introduced. Three hours lecture.	

Early Childhood Education

ECE 075	3 Units	ECE 085	.5 Unit
Care of Infants and Toddlers <i>Course Advisories: Eligibility for ENGL 001 and SCC minimum math standard.</i> A study of the development and care of children from birth to age three. Includes standards for staffing, equipping and administering an infant care center. <i>Three hours lecture.</i>		Educational Games <i>Course Advisory: SCC minimum English standards.</i> An intensive introduction to planning and producing educational learning games for preschool-aged children suited for use in home, day care, and/or preschool settings. Successful completion requires attendance, participation and the completion of a minimum of two (2) cognitive games. This is a credit/no-credit only course. Repeatable 3 times. <i>One-half hour lecture.</i>	
ECE 076	3 Units	ECE 086	1 Unit
Programs for Two-Year-Olds <i>Course Advisory: SCC minimum English and math standards.</i> Presents the developmental characteristics of both normal and atypical two-year-old children and appropriate modifications of the preschool curriculum to meet their special needs. Curriculum development techniques in the area of art, language, literature, music, science, cooking, cognitive activities and appropriate scheduling are included. Observations in the SCC Children's Programs are required. <i>Three hours lecture.</i>		Constructive Play: Challenging Children to Think <i>Course Advisory: SCC minimum English standards.</i> The area of cognitive development will be addressed from a developmental perspective, with an emphasis on developing problem-solving skills. The course will focus on the teacher's role as facilitator of active learning, and will introduce specific materials and activities that challenge children to think. Repeatable 3 times. <i>One hour lecture.</i>	
ECE 079	2 Units	ECE 099	1-3 Units
Adult Supervision: The Mentor Teacher <i>Prerequisite: Prior completion of the ECE Certificate and permission of the Director of Children's Programs to verify the prerequisite. Course Advisory: SCC minimum English standards.</i> Methods and principles of supervising student teachers in early childhood classrooms. Emphasis on the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents and other staff. <i>Two and three-quarters hours lecture (12 week course).</i>		ECE Honors <i>Prerequisites: Completion of 24 units of college credit with a minimum GPA of 3.3; a minimum of 5 units in the discipline with a grade of "B" or better; an ability to work independently; permission of the Division Dean based on instructor availability. Course Advisory: SCC minimum English standards.</i> An independent study and research class in the areas of infant, toddler, and preschool early education programs. The student and instructor design an outlined program of study. May be repeated to a maximum of 6 units, including initial enrollment. <i>Three to nine hours weekly by arrangement.</i>	
ECE 080	3 Units	ECE 101	.5 Unit
Early Childhood Administration <i>Prerequisites: ECE 062 and HUDV 038. Course Advisory: SCC minimum English standards.</i> Overview of the fundamental duties and responsibilities of Early Childhood administration, including preparation, implementation and evaluation of the program goals and budget controls. Meets requirements set by the California Commission for Teachers Preparation and Licensing for the Children's Center Supervision Permit. <i>Three hours lecture.</i>		Sensitive and Critical Topics in ECE <i>Course Advisory: SCC minimum English standards.</i> A short course designed to include current topics in Child Development or Early Childhood Education that are particularly sensitive in nature and/or subject to critical timing. It is designed especially as an update for teachers and aides currently working in the field. Emphasis will be on the role of the teacher and the children's center. Repeatable 5 times. <i>Eight hours lecture total for semester.</i>	
ECE 081	3 Units	ECE 102	.5 Unit
Early Childhood Staff Supervision <i>Prerequisites: ECE 062 and HUDV 038. Course Advisory: Eligibility for ENGL 001.</i> Presentation of the fundamentals involved in becoming a more effective supervisor, and methods and procedures in dealing with selection, supervision and evaluation of staff in an early childhood setting. Meets the requirements set by the California Commission for Teachers Preparation and Licensing for the Children's Center Supervision Permit. <i>Three hours lecture.</i>		Curriculum Development <i>Course Advisory: SCC minimum English and Math standards.</i> Curriculum development techniques for preschool programs in the areas of speech development, pre-reading skills, math concepts, science activities, music, art, cooking and nutrition. Emphasis in the above curriculum areas will be placed on the specialized needs of disadvantaged children. Repeatable 5 times. <i>Eight hours lecture total for semester.</i>	

Early Childhood Education

ECE 110	3 Units	ECE 200	.5 Units
Emergent Literacy in Early Childhood <i>Prerequisite: ECE 071. Course Advisory: SCC minimum English standards.</i> Prepares early childhood teachers and caregivers to enhance the early literacy outcomes of young children. Presents the early literacy developmental progression and skills in teaching early literacy to young children, from birth through age 5. Students will acquire knowledge in developing a literacy-rich curriculum, oral language development, literacy-enhanced play, reading, writing, alphabet knowledge, and phonemic awareness. <i>Three hours lecture.</i>		ECE Mentor Teacher Seminar <i>Prerequisite: Selection as a Mentor Teacher with the California Mentor Teacher Program. Course Advisories: SCC English and math standards.</i> A monthly seminar for Early Childhood Mentor Teachers to explore issues related to their roles as supervisors or early childhood student teachers. Seminar content will be individualized to meet the needs of each mentor. Participation and attendance in the monthly meeting is mandatory. <i>Eight hours lecture total for semester.</i>	
ECE 121	.5 Unit	ECE 245	1.5 Units
Family Child Care: Introduction and Licensing Regulations <i>Course Advisories: SCC minimum English and Math standards.</i> The study of the family child care home setting, licensing application, parent responsibilities, community resources, and assessment of local community needs. <i>Two hours lecture (4 week course).</i>		Foster Parenting <i>Course Advisory: SCC minimum English standards.</i> In-depth study of issues relating to foster care including separation, attachment and loss, child abuse, and neglect. Laws and agencies pertaining to foster care will be discussed. <i>Three hours lecture.</i>	
ECE 122	.5 Unit	ECE 501	Non-Credit
Family Child Care: Guidance and Theory <i>Course Advisories: SCC minimum English and Math standards.</i> The study of the family child care home setting includes guidance techniques, program planning, child development theories, and how to work effectively with parents. <i>Two hours lecture (4 week course).</i>		Early Childhood Education Children's Programs <i>Course Advisory: SCC minimum English standards.</i> Provides the opportunity for parents to become more involved with their child(ren)'s education, to gain the positive interaction skills appropriate for this age group, and to gain information about the normal behavior of preschool aged children. Expected of parents whose children are enrolled in the Solano Community College Children's Programs. Repeatable 3 times. <i>Sixteen hours by arrangement total for the semester.</i>	
ECE 123	.5 Unit	ECE 550	Non-Credit
Family Child Care: Health, Safety, and Nutrition <i>Course Advisories: SCC minimum English and Math standards.</i> Study of the family child care home setting includes record keeping for implementing health, nutrition, and safety regulations and policies. <i>Two hours lecture (4 week course).</i>		Positive Parenting Practices Focuses on those aspects of young children's normal behavior and needs which have the greatest significance for parents and others interested in behavior of young children. <i>Three hours lecture (8 week course).</i>	
ECE 124	.5 Unit	Special Topics	
Family Child Care: Business and Legal Aspects <i>Course Advisories: SCC minimum English and Math standards.</i> Study of the family child care home setting includes record keeping, budget preparation, marketing and small business practices. <i>Two hours lecture (4 week course).</i>		These courses, numbered 098 or 198 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.	

Economics

Business & Computer Science Division

PROGRAM DESCRIPTION

Economics is the study of how people make choices when faced with scarcity. It is therefore the study of the process of decision-making by individuals, businesses, governments, or any other group that must make such choices, and the study of the institutional context in which these decisions are made.

The economic courses provide the lower-division requirements for students majoring in economics, business, computer science, and engineering. These courses also provide students majoring in other fields with an understanding of economic principles and a familiarity with the economic institutions that affect their lives.

ASSOCIATE DEGREE

Not offered in this discipline.

ECON 001

3 Units

Principles of Economics (Macroeconomics)

Course Advisories: Eligibility for ENGL 001; SCC minimum math standard. Introductory course dealing with the nature and scope of economics, supply and demand analysis, national income accounting, Keynesian models, money and banking, fiscal and monetary policy, stabilization methods, and current problems and issues. Emphasis on Macroeconomics. **Three hours lecture.**

ECON 002

3 Units

Principle of Economics (Microeconomics)

Course Advisories: Eligibility for ENGL 001; SCC minimum math standard. Introductory course dealing with the price and output determination, cost of production, market structures, anti-trust regulations, and international trade. Emphasis on Microeconomics. **Three hours lecture.**

ECON 010

3 Units

Global Economics

Course Advisories: SCC minimum Math standard. Eligibility for ENGL 1. This is an introductory course that examines patterns of international trade and development. In this course students will understand how economies around the world are linked. Students will examine issues of global trade, trade policies, exchange rate systems, developing countries and controversies regarding trade policy. **Three hours lecture.**

ELECTRONICS TECHNOLOGY

PROGRAM DESCRIPTION

Designed to prepare the student for employment in industry by providing an extensive background in electronics theory with laboratory application. Employment would be at the level of entry-level technologist/technician or engineering assistant.

CERTIFICATE OF ACHIEVEMENT AND ASSOCIATE IN SCIENCE DEGREE

A Certificate of Achievement can be obtained by completing the 35-unit major. The Associate in Science Degree can be obtained by completing a total of 60 units, including the 35-unit major and the general education requirements. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

NOTE: Not all courses are offered every semester, and the sequence of courses listed below is recommended, not required.

	Units	Recommended Electives
ECTN 050—DC Electronic Principles	4	DRFT 050
ECTN 051—AC Electronic Principles	4	ECTN 102,111,112, 113, 150, 151,171
ECTN 052—Semiconductor Devices and Circuits	4	ENGL 051
ECTN 053—Communications Operational Amplifiers	4	IT 140
ECTN 060—Basic Digital Fundamentals	4	OCED 090, 091
ECTN 061—Digital Systems: Principles & Applications	4	
ECTN 140—Mathematics for Electronics	4	Advanced standing may be granted for ECTN 050 and/or
ECTN 141—Mathematic for Electronics	4	ECTN 051 or ECTN 060 by achieving a satisfactory score
MT 162—Robotics Manufacturing Systems	<u>3</u>	on a written test. The test may not be retaken.
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Students may substitute:
 ECTN 132 and 133 for ECTN 140
 ECTN 134 and 135 for ECTN 141

JOB-DIRECT CERTIFICATE REQUIREMENTS

For each of the following programs, the required courses must be completed with a grade of "C" or better.

Computer Investigations

Required Courses	Units
CIS 001—Introduction to Computer Science	3
CJ 051—Criminal Investigation	3
ECTN 172—Computer Forensics: Evidence Recovery	1.5
ECTN 173—Computer Forensics Investigations	3
ECTN 174—Com Forensics: Operating Systems Internals	<u>3</u>
	13.5

Computer Information Security

Required Courses	Units
ECTN 122—Computer Network+ Technology	4
ECTN 124—Computer Security+ Technology	4
ECTN 126—A+ Computer Hardware Technology	4
ECTN 128—A+ Computer Operating Systems Technology	<u>4</u>
	16

Electronic Security and Surveillance Technician

Required Courses	Units
CJ 001—Introduction to Criminal Justice	3
ECTN 111—Fundamentals of Wire & Cabling	1
ECTN 112—Fundamentals of Fiber Optics	1
ECTN 113—Fund. of Wireless Communication	1
ECTN 171—Security and Surveillance Techniques	<u>4</u>
	10

Home Technology Integrator

Required Courses	Units
IT 160—Electrical Fundamentals	3
ECTN 111—Fund. of Wire & Cabling	1
ECTN 112—Fund. of Fiber Optics	1
ECTN 113—Fund. of Wireless Communication	1
ECTN 175—Home Technology Integration Techniques	<u>4</u>
	10

Electronics

ECTN 050	4 Units	ECTN 101	3 Units
DC Electronic Principles <i>Prerequisites: ECTN 132 or ECTN 140 (either may be taken concurrently). Course Advisory: SCC minimum English standards.</i> Presents the principles of direct current and passive devices, and introduces active devices. Mathematical analysis and laboratory construction of circuits are required. <i>Three hours lecture, three hours lab.</i>		Introduction to Electricity and Electronics <i>Prerequisite: None. NOTE: Not open for credit to students who have taken ECTN 050 or 051. Course Advisories: SCC minimum math and English standards.</i> An introductory study of electrical and electronic technology. Fundamentals of DC and AC circuitry components. Instruments used in the study of basic electronics will be discussed and demonstrated with an emphasis on interpretation of schematic diagrams, breadboarding, and familiarization of electronic components. <i>Two hours lecture, three hours lab.</i>	
ECTN 051	4 Units	ECTN 102	1-3 Units
AC Electronic Principles <i>Prerequisite: ECTN 050 and ECTN 133 or ECTN 140 (all may be taken concurrently). Course Advisory: SCC minimum English and Math standards.</i> Presents the principles of alternating current circuits and active devices. Mathematical analysis and laboratory construction of circuits are required. <i>Three hours lecture, three hours lab.</i>		Electrical Safety <i>Course Advisories: SCC minimum English and Math standards.</i> A survey of the proper use, handling, and hazards associated with electrical and electronic equipment. The student will be introduced to the current generally accepted (National Electrical Safety Code) safety practices and procedures associated with power transmission, industrial, and consumer electrical and electronic equipment. This is an open entry-open exit course. Repeatable for up to 3 units. <i>One to three hours lecture.</i>	
ECTN 052	4 Units	ECTN 111	1 Unit
Semiconductor Devices and Circuits <i>Prerequisites: ECTN 051 and ECTN 134 or ECTN 141 (ECTN 134 or 141 may be taken concurrently). Course Advisory: SCC minimum English standards.</i> Presents the principles of discrete semiconductor devices and circuits. Mathematical analysis and laboratory constructions of circuits required. <i>Three hours lecture, three hours lab.</i>		Fundamentals of Wire and Cabling <i>Course Advisories: SCC minimum English and math standards.</i> Presents the principles and practices of copper cable wiring technology. Includes instruction in the design, installation, and maintenance of copper wiring systems for intelligent control systems, lighting and appliance control devices, communication and networking. Also includes instruction in household and institutional power wiring. <i>One hour lecture, one hour lab.</i>	
ECTN 053	4 Units	ECTN 112	1 Unit
Communications and Operational Amplifiers <i>Prerequisite: ECTN 052 and ECTN 135 or ECTN 141 (ECTN 135 or 141 may be taken concurrently). Course Advisory: SCC minimum English standards.</i> Presents the principles of operational amplifier circuits, discrete and integrated communications circuits, and AM/FM transmitters and receivers. Mathematical analysis and laboratory construction are required. <i>Three hours lecture, three hours lab.</i>		Fundamentals of Fiber Optics <i>Course Advisories: SCC minimum English and math standards.</i> Presents the principles and practices of fiber optics and optoelectronic technology. Includes instruction in the design, installation, and maintenance of fiber optic cabling and control systems and optoelectronic control systems for computer communication and networking systems. <i>One hour lecture, one hour lab.</i>	
ECTN 060	4 Units	ECTN 113	1 Unit
Basic Digital Fundamentals <i>Course Advisories: SCC minimum English and Math standards.</i> Presents the principles of digital numbering systems, digital codes, logic gates, and flip-flops; an introductory course in Boolean Algebra and digital electronics. Mathematical analysis and laboratory assignments are required. <i>Three hours lecture, three hours lab.</i>		Fundamentals of Wireless Communication <i>Course Advisories: SCC minimum English and math standards.</i> Presents the principles and practices of wireless communication technology. Includes instruction in the design, installation, and maintenance of wireless communication and network systems. Emphasis is placed on system reliability, security, and cost containment concerns. <i>One hour lecture, one hour lab.</i>	
ECTN 061	4 Units		
Digital Systems: Principles and Applications <i>Prerequisite: ECTN 060 (may be taken concurrently). Course Advisory: SCC minimum English standards.</i> Presents the principles of counter circuits, registers, memories, arithmetic logic, integrated circuits, and digital computer introduction. Mathematical analysis and laboratory assignments are required. <i>Three hours lecture, three hours lab.</i>			

ECTN 122	4 Units	ECTN 133	2 Units
Computer Network+ Technology <i>Course Advisories: SCC minimum English and math standards.</i> Presents the architecture of computer networks, including the names, purpose, and characteristics of network components; such as network interface card (NIC), hubs, routers, cabling and connectors; as well as topologies, protocols and standards. This course also addresses network implementation, network support and troubleshooting. Prepares the student for CompTIA Network+ Computer Network Certification. As a team, in a laboratory environment, the class will assemble and implement a complete network, with a server running a Microsoft server network operation system (NOS) and several computers running the Microsoft Windows XP Professional Operating System. All of the required cabling will be assembled in the lab by the students under the supervision of the instructor. <i>Three hours lecture, three hours lab.</i>		Mathematics for Electronics <i>Prerequisite: ECTN 132. NOTE: Not open to students who have completed ECTN 140. Course Advisories: SCC minimum English and Math standards.</i> Presents the principles of algebra, graphs and determinants as they apply to electronics. Frequent homework assignments and written tests are required. <i>Four hours lecture (8 week course).</i>	
ECTN 124	4 Units	ECTN 134	2 Units
Computer Security+ Technology <i>Prerequisite: ECTN 122. Course Advisories: SCC minimum English and math standards.</i> Presents the vulnerability, threats, and risks to data and other computer assets from spyware, Trojan horses, viruses, worms, and other security attacks. This course also addresses the fundamental policies and procedures for maintaining the security of a computer network. Prepares the student for the Computing Technology Industry Association's (CompTIA) Security+ Certification. <i>Three hours lecture, three hours lab.</i>		Mathematics for Electronics <i>Prerequisite: ECTN 133 with a grade of "C" or better. NOTE: Not open to students who have completed ECTN 141. Course Advisories: SCC minimum English and Math standards.</i> Presents the principles of trigonometry as it applies to electronics. Frequent homework assignments and written tests are required. <i>Four hours lecture (8 week course).</i>	
ECTN 126	4 Units	ECTN 135	2 Units
A+ Computer Hardware Technology <i>Course Advisories: SCC minimum English and math standards.</i> Presents the structure of modern personal computer architecture including the names, purpose, and characteristics of components; such as motherboards, CPUs, RAM, disk drive storage, printers and networks. This course also addresses upgrading computer components, optimizing computer performance, preventative maintenance, safety, and computer hardware troubleshooting. Prepares the student for CompTIA A+ Hardware Service Technician Certification. <i>Three hours lecture, three hours lab.</i>		Mathematics for Electronics <i>Prerequisite: ECTN 134. NOTE: Not open to students who have completed ECTN 141. Course Advisories: SCC minimum English and Math standards.</i> Presents the principles of number systems and Boolean Algebra as they apply to electronics. Frequent homework assignments and written tests are required. <i>Four hours lecture (8 week course).</i>	
ECTN 128	4 Units	ECTN 140	4 Units
A+ Computer Operating Systems Technology <i>Course Advisories: ECTN 126, SCC minimum English and Math standards.</i> Presents the purpose and capabilities of computer operating systems, operating system components and utilities. The course emphasizes initial investigation of personal computer operating systems and demonstrates the uses of the operating system and other software for isolating troubles and completing the repair of personal computers. Prepares the student for CompTIA A+ Operating Systems Technologies certification. <i>Three hours lecture, three hours lab.</i>		Mathematics for Electronics <i>Prerequisite: None. NOTE: Not open to students who have completed ECTN 132 & 133. Course Advisories: SCC minimum English and Math standards.</i> Presents the principles of algebra, graphs and determinants as they apply to electronics. Frequent homework assignments and written tests are required. <i>Four hours lecture.</i>	
ECTN 132	2 Units	ECTN 141	4 Units
Mathematics for Electronics <i>Prerequisite: None. NOTE: Not open to students who have completed ECTN 140. Course Advisories: SCC minimum English and Math standards.</i> Presents the principles of algebra as it applies to electronics. Frequent homework assignments and written tests are required. <i>Four hours lecture (8 week course).</i>		Mathematics for Electronics <i>Prerequisite: ECTN 140 with a grade of "C" or better. NOTE: Not open to students who have completed ECTN 134 & 135. Course Advisories: SCC minimum English and Math standards.</i> Presents the principles of trigonometry, vectors, and number systems as they apply to electronics. Frequent homework assignments and written tests are required. <i>Four hours lecture.</i>	
		ECTN 158	1.5 Units
		Microcomputer Maintenance <i>Course Advisory: SCC minimum English standards.</i> Presents data on component parts of computer systems, personal computer configuration for memory expansions, and input/output ports, and proper insertion/removal procedures for circuit boards and components. <i>Three hours lecture, one hour lab (8 week course).</i>	

Electronics

- ECTN 171** 4 Units
Security and Surveillance Techniques
Course Advisory: SCC minimum English and Math standards.
An overview of the principles and practices of the security and surveillance industry. Students are introduced to the modern methods used to secure physical property through electronic means. Students are introduced to the modern methods of gathering surveillance information through both covert and overt electronic means. Emphasis is placed on legal and ethical practices. *Three hours lecture, three hours lab.*
- ECTN 172** 1.5 Units
Computer Forensics: Evidence Recovery
Course Advisories: SCC minimum English and math standards.
Introduces the student to the physical aspects of data collection from computer systems and computer networks. The student is introduced to the hardware and software used to collect data, the techniques used to ensure integrity and preserve data, and the requirements of preparing collected data for later forensic investigation. Students will learn to process a digital crime scene as well as the corporate environment for both criminal/civil cases and incident response. (Same as CIS 172) *One hour lecture, one and one-half hours lab.*
- ECTN 173** 3 Units
Computer Forensics Investigations
Prerequisite: CIS 001. Course Advisory: Eligibility for ENGL 001; SCC minimum math standard. Introduces the student to the tools and techniques of preserving and investigating digital evidence in a systematic and scientifically reliable manner using modern computer forensic software applications. The student is introduced to the interpretation and analysis of recovered data for the purpose of collecting legal evidence. Student is exposed to data in an array of formats and applications from several computer types and operating systems as well as deleted, encrypted, and damaged information. Evidence reporting practices are also introduced. (Same as CIS 173) *Two hours lecture, three hours lab.*
- ECTN 174** 3 Units
Computer Forensics: Operating Systems Internals
Prerequisite: ECTN 173 with a grade of "C" or better or CIS 173 with a grade of "C" or better. Course Advisories: SCC minimum English and Math standards. Students will explore the internal workings of computer operating systems and perform forensic examinations of various operating systems. Students will analyze FAT, NTFS, Ext2, Ext3, UFS1, and UFS2 file systems and data structures. Students will learn to recognize systems that have been compromised by viruses or other intrusive programs, and will be able to locate corrupt, hidden or deleted data. (Same as CIS 174) *Two hours lecture, three hours lab.*
- ECTN 175** 4 Units
Home Technology Integration Techniques
Course Advisory: SCC minimum English and Math standards.
Presents the principles and practices of installing and maintaining home technology. Student is exposed to home lighting controls, computer networking, home security, home entertainment systems including video, data, and voice, heating ventilation and air conditioning control systems, and home systems integration. *Three hours lecture, three hours lab.*
- ECTN 176** 4 Units
Digital Home Technology Integration
Course Advisories: SCC minimum English and math standards. Presents the principles and practices of installing and maintaining digital home technology. Student is exposed to home computer networking systems and computer controlled home automation systems, telephone systems as well as voice over Internet protocol, troubleshooting and documentation. Prepares the student for DHTI+ certification. Safety training will be incorporated throughout the course. *Three hours lecture; three hours lab.*
- ECTN 190** 1.5 Units
Home Technology Integration Instructional Strategies
Course advisory: SCC minimum English and math standards. Designed to provide instructors of home technology integration (HTI) courses with the tools necessary to successfully facilitate curriculum, administer learning, and apply instructional materials and equipment to the classroom setting. Emphasis is placed on the synthesis and evaluation of vendor provided HTI student materials and the transfer of demonstration and instruction skills of HTI technology. Students will receive a solid overview of the learning necessary to teach HTI courses as well as experience in a working HTI instructional laboratory. Safety training will be incorporated throughout the course. *One hour lecture, two hours lab.*
- ECTN 212** 1 Unit
FCC License Preparation
Course Advisories: ECTN 053, SCC minimum English standard. Computer-aided instruction and laboratory study of Elements I, II, III of the FCC License for Commercial Radio Operators. This is a pass/no-pass only course. Repeatable 2 times. *Three hours lab.*
- ECTN 213** 1 Unit
FCC License Preparation
Course Advisories: ECTN 053, SCC minimum English standards. Computer-aided instruction and laboratory study of Element IV of the FCC License for Commercial Radio Operators. This is a pass/no-pass only course. Repeatable 2 times. *Three hours lab.*
- Special Topics**
These courses, numbered 148, 248, or 548 depending upon their transferability, are courses of contemporary interest centered on changing knowledge and important issues in the field. Specific information will vary with each course.
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PROGRAM DESCRIPTION

The field of engineering deals with the design, production, and testing of new products as well as maintaining and improving existing ones. Engineers are professionals who apply mathematical and scientific principles to solve technical problems.

ASSOCIATE DEGREE

Not offered in this discipline.

ENGR 001 Introduction to Engineering (F-Day) <i>Course Advisories: Eligibility for enrollment in ENGL 001 and SCC minimum math standard.</i> A first, non-technical course for engineering students and students considering majoring in engineering. Introduction to different engineering fields, the campus life of engineering students, schedule guidelines, opportunities in engineering, engineers' roles in society, ethics in engineering, and strategies and approaches required to survive math, science, and engineering courses. One hour lecture.	1 Unit	ENGR 030 Engineering Mechanics: Statics (F-Day) <i>Prerequisites: MATH 021 and PHYS 006. Course Advisory: SCC minimum English standards.</i> This course, which is required for engineering majors, presents a study of the principles of statics of particles and rigid bodies as applied to equilibrium problems of two and three-dimensional structures, and the principles of friction, virtual work, and stability of equilibrium. Three hours lecture, one hour discussion.	3 Units
ENGR 017 Introduction To Electrical Engineering (S-Day) <i>Prerequisites: MATH 023 (may be taken concurrently) and PHYS 007. Course Advisory: SCC minimum English standards.</i> Required for engineering majors, the course presents a study of basic circuit analysis techniques including Kirchhoff's laws, mesh-current, node-voltage, Thevenin and Norton equivalent; transient and steady-state responses of passive circuits; sinusoidal steady-state analysis; power calculations; operational amplifier; semiconductor devices. Weekly homework assignments and written tests, including a comprehensive final examination and lab reports, will be used to evaluate student success. Four hours lecture, three hours lab.	4 Units	ENGR 045 Properties of Materials <i>Prerequisites: PHYS 006 and CHEM 001. Course Advisory: SCC minimum English standards.</i> This required course for engineering majors covers the application of basic principles of physics and chemistry to the structure and properties of engineering materials. Special emphasis is devoted to the relationship between microstructure and the mechanical properties of metals, polymers and ceramics, and the electrical, magnetic, and optical properties of materials. Three hours lecture, three hours lab.	4 Units

English

Humanities Division

PROGRAM DESCRIPTION

This program teaches writing, critical thinking, reading, and research skills as they apply to the areas of composition, creative writing, and the analysis of literature, the latter of which is presented through genre, survey, figure, and thematic courses.

ASSOCIATE IN ARTS DEGREE

The Associate in Arts Degree can be obtained by completing a total of 60 units, including the 18-unit major listed below, general education requirements, and electives. All courses in the major must be completed with a grade of C or better or a P if the course is taken on a pass-no pass basis.

REQUIRED COURSES

The courses are listed in the suggested sequence.

		Units	Recommended Electives
ENGL 002—Critical Thinking & Writing About	Lit.	3	ENGL 004, 005, 006, 007, 012, 016, 018, *021, *023, *024, *025, *030, *031, 032, 033, 034, 035, 036, 037, *040, *041, 044, 048, 049, 058, AMST 001, 002
One genre course from the list below:		3	
ENGL 021—Intro. to Poetry			
ENGL 023—Intro. to the Modern Novel			
ENGL 024—Intro. to the Short Story			
ENGL 025—Intro. to Drama as Literature			*If not previously taken for the major.
Two survey courses from the list below:		6	
ENGL 030—Survey of American Literature I			
ENGL 031—Survey of American Literature II			
ENGL 040—Survey of English Literature			
ENGL 041—Survey of English Literature			
Electives selected from the list of Recommended Electives		6	
		<u>6</u>	
		18	

ENGLISH AS A SECOND LANGUAGE

PROGRAM DESCRIPTION

The ESL courses emphasize study in English of reading, writing, speaking, and listening for non-native speakers. The program includes practice in the above areas as well as vocabulary acquisition and grammar work with the goals of building fluency in English and moving the students into mainstream college courses.

ASSOCIATE DEGREE

Not offered in this discipline.

ENGL 001	3 Units	ENGL 006	3 Units
<p>College Composition <i>Prerequisite: A score of 102 or better within the last three years on the sentence skills section of the assessment test; or SAT verbal score of at least 500; or ACT score of at least 23; or recommendation of a counselor or English instructor based on a Multiple Measures Evaluation; or a grade of "Credit" and a score of 8 or more on the Composition Mastery Final Examination upon completion of ENGL 305 or 350 or 355; or a grade of "Credit" in ENGL 370. Corequisite: LR 010.</i> A writing course which emphasizes critical reading, expository and argumentative writing, and mastery of library research. It includes instruction and practice in critical thinking, in analytical reading and evaluation of written work, and in the methods of clearly communicating and supporting ideas in organized, coherent essays. Students are required to write six to ten essays, one of which may be a research paper, based on essays, literature read in class, and/or personal experience. <i>Three hours lecture.</i></p>		<p>Creative Writing I <i>Prerequisite: ENGL 001.</i> An introductory study of creative writing techniques. Students develop self-expression through writing and through individual and class criticism of student work. Frequent writing is required. <i>Three hours lecture.</i></p>	
ENGL 002	3 Units	ENGL 007	3 Units
<p>Critical Thinking and Writing About Literature <i>Prerequisite: ENGL 001 with a grade of "C" or better.</i> The development of critical thinking, reading, and writing skills as they apply to the analysis of fiction, poetry and drama, literary criticism, and related non-fiction from diverse cultural sources and perspectives. Emphasis is on the techniques and principles of effective written argument as they apply to literature. Essay examinations, critical papers, and some research projects are required. <i>Three hours lecture.</i></p>		<p>Creative Writing II <i>Prerequisite: ENGL 006.</i> An advanced study of creative writing skills. Students will be expected to show proficiency in at least one genre (poetry, short story, drama, novel). Frequent writing and intense individual and class criticism of student work are requirements. Repeatable 2 times. <i>Three hours lecture.</i></p>	
ENGL 004	3 Units	ENGL 012	3 Units
<p>Critical Thinking and Composition: Language in Context <i>Prerequisite: ENGL 001. Course Advisory: SCC minimum math standard.</i> A study of the process of thought and its representation in writing, focusing on the formation of responsible opinions and their presentation in written argument. This course offers practice in the intellectual skills necessary for critical thinking, including observation, analysis, and research; it provides instruction in the organization, arrangement, and stylistic presentation of informative and argumentative writing; it examines the informative and argumentative writing of others and it requires students to write their own analytical and argumentative essays. Essay examinations and critical papers are required. <i>Three hours lecture.</i></p>		<p>Modern Women Writers <i>Prerequisite: ENGL 001.</i> A study of 20th century women writers, concentrating on British and North American women writers. The course focuses on novels, short stories, poems, plays and essays written by women and attempts to define and assess the contributions of women writers to 20th century literature. Styles and themes employed in the literature, as well as the cultural and political background in which it was written, will also be examined and analyzed. Examinations and critical papers are required. <i>Three hours lecture.</i></p>	
ENGL 005	3 Units	ENGL 013	3 Units
<p>Advanced Composition <i>Prerequisite: ENGL 001 with a grade of "C" or better.</i> A writing course which continues the development of expository writing skills through the study of sentence structure and variety, appropriate diction, and rhetorical devices and through reading and discussing professional and student essays. Emphasis is on improving student's expository writing skills through peer and teacher critiques, revision, and developing proofreading skills. <i>Three hours lecture.</i></p>		<p>Mystery Fiction <i>Prerequisite: ENGL 001.</i> Examines the origins of mystery fiction and the great fictional detectives, surveys the various schools of mystery fiction, and explores reader fascination with crime and detection in fiction. <i>Three hours lecture.</i></p>	
ENGL 014	3 Units	ENGL 014	3 Units
<p>Critical Thinking and Composition: Language in Context <i>Prerequisite: ENGL 001.</i> Course Advisory: SCC minimum math standard. A study of the process of thought and its representation in writing, focusing on the formation of responsible opinions and their presentation in written argument. This course offers practice in the intellectual skills necessary for critical thinking, including observation, analysis, and research; it provides instruction in the organization, arrangement, and stylistic presentation of informative and argumentative writing; it examines the informative and argumentative writing of others and it requires students to write their own analytical and argumentative essays. Essay examinations and critical papers are required. <i>Three hours lecture.</i></p>		<p>The Bible as Literature <i>Prerequisite: ENGL 001.</i> A general survey of narratives, drama, poetry, biography, history, culture, and prophecy of the "Old Testament," "The Apocrypha," and the "New Testament" with emphasis on literary interpretation of their content and techniques. <i>Three hours lecture.</i></p>	
ENGL 016	3 Units	ENGL 016	3 Units
<p>Critical Thinking and Composition: Language in Context <i>Prerequisite: ENGL 001.</i> Course Advisory: SCC minimum math standard. A study of the process of thought and its representation in writing, focusing on the formation of responsible opinions and their presentation in written argument. This course offers practice in the intellectual skills necessary for critical thinking, including observation, analysis, and research; it provides instruction in the organization, arrangement, and stylistic presentation of informative and argumentative writing; it examines the informative and argumentative writing of others and it requires students to write their own analytical and argumentative essays. Essay examinations and critical papers are required. <i>Three hours lecture.</i></p>		<p>Masterpieces of Western World Literature <i>Prerequisite: ENGL 001.</i> A study of a selection of major works in Western World literature from the Greeks to the present, excluding British Isles and American writers. This course will examine these selected major works, introducing the student to some of the most important literary efforts in Western World literature, as well as the works' historical and cultural contributions. Critical papers and examinations are required. <i>Three hours lecture.</i></p>	
ENGL 018	3 Units	ENGL 018	3 Units
<p>Critical Thinking and Composition: Language in Context <i>Prerequisite: ENGL 001.</i> Course Advisory: SCC minimum math standard. A study of the process of thought and its representation in writing, focusing on the formation of responsible opinions and their presentation in written argument. This course offers practice in the intellectual skills necessary for critical thinking, including observation, analysis, and research; it provides instruction in the organization, arrangement, and stylistic presentation of informative and argumentative writing; it examines the informative and argumentative writing of others and it requires students to write their own analytical and argumentative essays. Essay examinations and critical papers are required. <i>Three hours lecture.</i></p>		<p>Introduction To Mythology <i>Prerequisite: ENGL 001.</i> A survey of the major elements of mythology, its history and development as part of the human experience with a central focus on Western mythology, its origins and development as well as its appearance in and influence on literature. Examinations and papers are required. <i>Three hours lecture.</i></p>	

English

ENGL 021 Introduction to Poetry <i>Prerequisite: ENGL 001.</i> A study of poetry as a form of literature and art. This course examines the elements of poetry, the historical development of the genre, and the major themes treated by poetry. Examinations and critical papers are required. <i>Three hours lecture.</i>	3 Units	ENGL 032 Introduction to Native American Literature <i>Prerequisite: ENGL 001.</i> A study of representative literature by various Native American writers. Critical papers and written examinations are required. <i>Three hours lecture.</i>	3 Units
ENGL 023 Introduction to the Modern Novel <i>Prerequisite: ENGL 001.</i> A study of selected novels written during the 20th Century, including the development of the modern novel as a form of literature and the specific techniques and themes employed by novelists. Critical papers and examinations are required. <i>Three hours lecture.</i>	3 Units	ENGL 033 Survey of African American Literature in the United States <i>Prerequisite: ENGL 001.</i> A study of representative selections of poetry, short fiction, short drama, and essays written by African Americans from 1760 to the present. The ethnic context, artistic techniques, and literary themes will be studied. Critical papers and written examinations are required. <i>Three hours lecture.</i>	3 Units
ENGL 024 Introduction to the Short Story <i>Prerequisite: ENGL 001.</i> A study of the short story as a form of literature, examining the historical development of the short story, the literary elements of the genre, and the major themes treated by the short story. Examinations and critical papers are required. <i>Three hours lecture.</i>	3 Units	ENGL 034 African American Novel and Drama in the United States <i>Prerequisite: ENGL 001.</i> Through the in-depth study of novels and plays by African American writers, the course examines the sociopolitical effect on the works and the influence this literature has had on mainstream American literature. Critical papers and examinations are required. <i>Three hours lecture.</i>	3 Units
ENGL 025 Introduction to Drama as Literature <i>Prerequisite: ENGL 001.</i> A study of the types of dramatic literature/tragedy, comedy, and tragi-comedy/through a historical survey of representative dramas. Students will read, analyze, compare and contrast selected plays in class. Examinations and critical papers are required. <i>Three hours lecture.</i>	3 Units	ENGL 035 Latina/o Literature <i>Prerequisite: ENGL 001.</i> Study of literature written by Latinas/os, including short stories, novels, poetry and drama. Written examinations and critical papers are required. <i>Three hours lecture.</i>	3 Units
ENGL 030 Survey of American Literature I <i>Prerequisite: ENGL 001.</i> A survey of literature written in the United States from the time of early settlement to the end of the Civil War. Through focus on significant works of diverse writers, attention is given to major literary movements and to understanding, comparing, and contrasting the diverse political, religious, social, and cultural elements of literature in the United States. Written examinations and critical papers are required. <i>Three hours lecture.</i>	3 Units	ENGL 036 Multi-Ethnic Literature in America <i>Prerequisite: ENGL 001.</i> A study of representative literature by various American multicultural writers: Asian American, African American, European American, Latina/o, and Native American. Written examinations and critical papers are required. <i>Three hours lecture.</i>	3 Units
ENGL 031 Survey of American Literature II <i>Prerequisite: ENGL 001.</i> A survey of literature written in the United States from the end of the Civil War to the present. Through focus on significant works of diverse writers, attention is given to significant literary movements and to understanding, comparing and contrasting the diverse political, religious, social and cultural elements of literature in the United States. Written examinations and critical papers are required. <i>Three hours lecture.</i>	3 Units	ENGL 037 Survey of Asian American Literature <i>Prerequisite: ENGL 001.</i> A study of representative selections of poetry, fiction, short drama, and non-fiction by Asian American writers. The course examines the ethnic context, artistic technique, and literary themes. Critical papers and examinations are required. <i>Three hours lecture.</i>	3 Units
		ENGL 038 The California Experience in Literature <i>Prerequisite: ENGL 001.</i> A study of literature written by California writers, including historical and cultural backgrounds, variety of regional and ethnic experiences, and unifying themes, concepts, and dreams. <i>Three hours lecture.</i>	3 Units

ENGL 040	3 Units	ENGL 049	1-3 Units
<p>Survey of English Literature <i>Prerequisite: ENGL 001.</i> The study of major works of British authors from the Anglo-Saxon period through the Eighteenth Century in poetry, prose, and drama. The course focuses on the development of a literature in English and explores how this literature responds to and shapes its historical and cultural context. It introduces students to the use of critical theory in the analysis of literature. Examinations and critical papers are required. <i>Three hours lecture.</i></p>		<p>English Honors <i>Prerequisites: Completion of 24 units of college credit with a minimum GPA of 3.3; a minimum of 5 units in the discipline with a grade of "B" or better; an ability to work independently; permission of the Division Dean based on instructor availability.</i> An independent study project which generally results in a critical examination of literature of significant creative and/or analytical writing. May be repeated to a maximum of 6 units, including initial enrollment. <i>Three to nine hours weekly by arrangement with instructor and division Dean.</i></p>	
ENGL 041	3 Units	ENGL 051	3 Units
<p>Survey of English Literature <i>Prerequisite: ENGL 001.</i> A study of major works in poetry, prose, and drama from approximately 1798 to the present. The course focuses on the Romantic Movement, the Victorian Age, early 20th Century, modernism, postwar literature, post-colonial literature, and late 20th century post-modernism. It examines the shifting relationship between literature and its historical and cultural contexts. It introduces students to questions of canon formation and the use of critical theory in the analysis of literature. Examinations and critical papers are required. <i>Three hours lecture.</i></p>		<p>Technical Writing <i>Prerequisites: A score of 102 or better in the last three years on the sentence skills section of the assessment test; or recommendation of a counselor or English instructor based on a Multiple Measures Evaluation; or a grade of "Credit" and a score of 8 or more on the Composition Mastery Final Examination upon completion of ENGL 305 or 350 or 355; or a grade of "Credit" in ENGL 370. Course Advisory: Keyboarding skills.</i> The fundamentals of technical writing, including memos, forms, resumes, proposals, and formal and informal reports. Emphasis is on techniques for organizing, evaluating, and presenting information in the simple, direct, and objective style required in modern technical communications. Use of word processing, desktop publishing, graphics, tables, appropriate fonts, layout, and format will also be emphasized. <i>Three hours lecture.</i></p>	
ENGL 044	3 Units	ENGL 058	3 Units
<p>Introduction to Shakespeare <i>Prerequisite: ENGL 001.</i> An introduction to Shakespearean drama and poetry through a study of representative comedies, histories, tragedies, and sonnets. Students will be concerned with dramatic and poetic principles as well as with an understanding of the historical context into which Shakespearean drama fits. Examinations and critical papers are required. <i>Three hours lecture.</i></p>		<p>Creative Writing: The Literary Magazine <i>Prerequisite: ENGL 001.</i> A course in the contemporary American Literary magazine which will also produce its own literary magazine: requesting submissions, reviewing them, selecting material, arranging contents and determining the format. Students may write creatively and make their work available for class commentary, as well as for possible inclusion in the magazine. Repeatable 1 time. <i>Three hours lecture.</i></p>	
ENGL 046	3 Units	ENGL 064	.5-1.5 Units
<p>American Sign Language 1 <i>Prerequisite: Eligibility for ENGL 001.</i> An introductory course on the culture and language of the deaf in this country. The course includes the acquisition of Fingerspelling skills and basic functional vocabulary of ASL. In addition to fluency in these two separate skills, the student will acquire basic knowledge of ASL syntax and nonverbal aspects of ASL, a history of the deaf in the country and deaf education, variations in Manual Communication, and the Culture of the Deaf. There will be both written and signed examinations, a research project, homework assignments, and individual examinations to demonstrate competency in both expressive and receptive ASL. Students will be expected to acquire a vocabulary of approximately 500 words (signs) and be proficient in Fingerspelling. <i>Three hours lecture.</i></p>		<p>Writing the Research Paper <i>Prerequisite: Completion of ENGL 370.</i> Study of the principles and techniques of library research and the writing of the research paper. To earn 1.5 units the student must complete both the research and the writing of an actual paper. May be repeated to a maximum of 1.5 units, including initial enrollment. <i>One to three hours activity.</i></p>	
ENGL 047	3 Units	ENGL 087	1 or 1.5 or 2 Units
<p>American Sign Language 2 <i>Prerequisite: ENGL 046.</i> Emphasis is on vocabulary expansion, introduction to ASL idiomatic expressions and information regarding the ethics and process of becoming a sign language interpreter. Assessment of competency is accomplished through written and communicative examination. Some interaction with the deaf population is required. <i>Three hours lecture.</i></p>		<p>Drama in Performance <i>Prerequisite: Permission of instructor to confirm opening. Course Advisory: ENGL 001.</i> Introduction to the principles of drama through a study of plays being presented at the Oregon Shakespearean Festival. Repeatable 3 times. <i>A travel study course.</i></p>	

English

ENGL 305

3 Units

Introductory Reading and Writing Skills

Intensive instruction in developmental language processing skills, reading and writing skills, and general classroom survival skills. Success in this class will be based on attendance, satisfactory completion of in- and out-of class reading and writing assignments and the Composition Mastery Examination. Repeatable 1 time. This is a pass/no-pass only course. *Three hours lecture.*

ENGL 310

.5-1.5 Units

Writing Skills Lab

Upon registration, each student's writing sample will be used to identify his/her individual writing problems, and an individualized program will be designed to provide instruction in those problem areas. Credit will be earned upon successful completion and mastery of the student's course of study and an appropriate number of hours as specified in each student's contract. This is an open entry/open exit, pass/no-pass only course. May be repeated to a maximum of 6 units, including initial enrollment. *One to three hours lab weekly per unit.*

ENGL 350

3 Units

Reading and Writing Skills for ESL Students

Prerequisite: A score of 51-69 within the last three years on the sentence skills section of the assessment test; or recommendation of a counselor or English instructor based on a Multiple Measures Evaluation; or a grade of "Pass" or better and a score of 4 or more on the Composition Mastery Final Examination upon completion of ENGL 305. Corequisites: This course must be taken together with 1.5 units of the ENGL 350L. Credit for this course will be given only when the requirements of both components have been completed. Combines writing and reading practice to increase skill in developing clear paragraphs. This course includes an intensive study of grammar, reading comprehension, and ways to find ideas. ESL students will acquire new language patterns for writing standard American English. This is a pass/no-pass only course. *Three hours lecture.*

ENGL 350L

1.5 Units

English 350 Lab

Corequisites: ENGL 350. Upon registration in English 350L, students will go through structured curriculum which develops their reading and writing skills. Credit will be earned upon successful completion and mastery of the course of study and completion of the appropriate number of hours as specified. May be repeated once, for a maximum total of 3 units credit. Students who fail the corequisite ENGL 350 twice must enroll in ENGL 310 for individualized instruction. This is a pass/no-pass only course. *Four and one-half hours lab.*

ENGL 355

3 Units

Writing and Reading Skills

Prerequisite: A score of 51-69 within the last three years on the sentence skills section of the assessment test; or recommendation of a counselor or English instructor based on a Multiple Measures Evaluation; or a grade of "Pass" or better and a score of 4 or more on the Composition Mastery Final Examination upon completion of ENGL 305 or ENGL 350. Corequisites: This

course must be taken together with 1.5 units of the ENGL 355L. Credit for this course will be given only when the requirements of both components have been completed. Combines writing and reading practice to increase skill in developing clear paragraphs and short essays. This course includes an intensive study of grammar, reading comprehension, and ways to find ideas. This is a pass/no-pass only course. *Three hours lecture.*

ENGL 355L

1.5 Units

English 355 Lab

Corequisites: ENGL 355. Upon registration in English 355L, students will go through structured curriculum which develops their reading and writing skills. Credit will be earned upon successful completion and mastery of the course of study and completion of the appropriate number of hours as specified. May be repeated once, for a maximum total of 3 units credit. Students who fail the corequisite ENGL 355 twice must enroll in ENGL 310 for individualized instruction. This is a pass/no-pass only course. *Four and one-half hours lab.*

ENGL 370

3 Units

English Fundamentals

Prerequisite: A score of 70-101 within the last three years on the sentence skills section of the assessment test; or recommendation of a counselor or English instructor based on a Multiple Measures Evaluation; or a grade of "Pass" and a score of 6 or more on the Composition Mastery Final Examination upon completion of ENGL 305 or ENGL 350 or ENGL 355. Corequisite: ENGL 370L. Credit for the course will be given only when the requirements for all components have been met. Course Advisory: ENGL 353. Principles and practice of English composition, emphasizing analytical paragraphs and essays; critical reading, thinking, and writing; principles of essay and paragraph construction; grammar and punctuation; construction of effective sentences. This is a pass/no-pass only course. *Three hours lecture.*

ENGL 370L

.5 Unit

English 370 Lab

Corequisites: ENGL 370. Upon registration in English 370L, students will go through structured curriculum which develops their reading and writing skills. Credit will be earned upon successful completion and mastery of the course of study and completion of the appropriate number of hours as specified. May be repeated once, for a maximum total of one unit credit. Students who fail the corequisite ENGL 370 twice must enroll in ENGL 310 for individualized instruction. This is a pass/no-pass only course. *One and one-half hours lab.*

Special Topics

These courses, numbered 048 or 098, are courses of contemporary interest centered on changing knowledge and important issues in the field. Announcements of Special Topics courses appear in the Schedule of Classes.

READING

ENGL 062 3 Units

Analytical Reading

Prerequisite: *Eligibility for ENGL 370. Course Advisory:* ENGL 353. A college-level reading course designed to improve and enhance the student's ability to understand inferential reading passages. Emphasis is on the development of critical reading skills, including the ability to understand the author's point of view and to engage in textual analysis. In addition, the student should develop the ability to successfully critique college-level reading material by analyzing a variety of prose structures. *Three hours lecture.*

ENGL 320 .5 to 1.5 Units

Reading Improvement Lab

Designed to identify students' individual reading needs and to provide individualized instruction. Students will be assigned a worktext based on assessment in consultation with a Reading instructor. Credit will be earned when student has successfully completed the assigned course of study and appropriate number of lab hours as specified in each student's contract. This is an entry/exit, credit/no credit course. May be repeated to a maximum of 6 units, including initial enrollment. *One to six hours lab.*

ENGL 331 3 Units

Vocabulary Strategies for Reading Comprehension

Course Advisory: *CPT Reading score of 35 to 49.* A vocabulary skills development course designed to help students learn new words to understand reading. This course will emphasize strategies for word analysis and dictionary use to identify, learn, use, and retain meanings of unfamiliar words. This is a pass/no-pass only course. Repeatable 1 time. *Three hours lecture.*

ENGL 353 3 Units

Textbook Reading Strategies

Course Advisory: *CPT Reading score of 50 or above.* Reading strategies and practice to improve understanding, enlarge vocabulary, and improve retention. Students will learn how to comprehend main idea-supporting detail relationships, use the knowledge they already have, recognize organizational patterns and author's purpose, and respond thoughtfully through discussion and writing. To develop skills in college study reading, primary emphasis is on reading materials typically found in textbooks. Repeatable 1 time. This is a pass/no-pass only class. *Three hours lecture.*

ENGLISH AS A SECOND LANGUAGE

ESL 006 3 Units

ESL: Composition Skills

Prerequisite: *Successful completion of ESL 078 or ESL 079. Course Advisory:* *ESL Assessment Test Score: Level 1.* An advanced class for non-native speakers of English which offers practice in writing, vocabulary acquisition, and related grammar practice. Includes ongoing practice in critical analysis of English paragraph logic. Frequent compositions, quizzes, graded exercises, and a final exam are required. This course is a prerequisite for English 350 for those students who score 31-75 on the ESL assessment test. Repeatable 1 time. *Three hours lecture.*

ESL 055 3 Units

Advanced ESL Reading

Prerequisites: *Successful completion of ESL 078 or ESL 079 or ESL Assessment Test Score: Level 1.* A class for advanced non-native speakers of English involving the active, problem-solving process of intensive reading and focusing on the coordination of a number of skills to assist the student in drawing information from a content-oriented, college-level text. Students will also practice critical, extensive reading and writing at their individual level and pace using outside texts from the ESL collection at the Solano College Library. Comprehension tasks, exercises, quizzes, a final exam and weekly written journals are required for successful completion. Repeatable 1 time. *Three hours lecture.*

ESL 077 3 Units

Conversation/Pronunciation Skills

Corequisite: *Concurrent enrollment in ESL 077L. Prerequisite:* *Successful completion of ESL 372 or ESL 373 or ESL 374. Course Advisory:* *ESL Assessment Test Score: At or above Level 2.* Offers practice in acquiring patterns of American English grammar and pronunciation for the purpose of conversing clearly and completely. Includes practice in critically evaluating semantic and syntactic contrasts among various languages represented by students. *Three hours lecture.*

ESL 077L .5 Unit

Conversation/Pronunciation Skills

Corequisite: *ESL 077. Course Advisory:* *Familiarity with basic reading and writing skills: English alphabet letter names, numbers, and ability to follow directions.* Provides structured listening comprehension and pronunciation practice, basic grammar practice, and elementary word processing practice for students new to the English language who wish to improve their own ability to speak and understand clearly. Instruction is individualized. Materials for the lab may be purchased in the bookstore. May be repeated to a maximum of six units, including initial enrollment. This is an open entry/open exit, pass/no-pass only course. *One and one-half hours lab.*

English

ESL 078	3 Units	ESL 330	.5 -1.5 Units
Intermediate ESL Reading <i>Prerequisite: Successful completion of ESL 372 or ESL 373 or ESL 374. Course Advisory: ESL Assessment Test Score: At or above Level 2.</i> Offers development in reading and vocabulary improvement for the intermediate ESL student. College-level reading passages range from narration to argumentation. Students practice the phonetic structure of the English sound and spelling systems to decrease confusion in reading comprehension. Graded exercises, quizzes, comprehension tasks, unit tests, and a final exam are required for successful completion of this course. Repeatable 1 time. Three hours lecture.		ESL Lab <i>Course Advisory: Familiarity with basic reading and writing skills, English alphabet letter names, numbers, and ability to follow directions.</i> Provides structured listening comprehension and pronunciation practice, basic grammar practice, and elementary word processing practice for students new to the English language who wish to improve their own ability to speak and understand clearly. This is an open entry / open exit, credit/no-credit only course. May be repeated to a maximum of 6 units, including initial enrollment. This is an open entry / open exit, pass/no-pass only course. One to six hours lab weekly per unit.	
ESL 079	3 Units	ESL 372	3 Units
Intermediate Sentence Structure: Spoken English <i>Prerequisite: Successful completion of ESL 372 or ESL 373 or ESL 374. Course Advisory: ESL Assessment Test Score: At or above Level 2.</i> An intermediate English course for non-native speakers focusing on the correct use of basic English sentence structures in oral communication. Knowledge of the structures reinforced and verified through written assignments. Repeatable 1 time. Three hours lecture.		Fundamentals of ESL Reading <i>Course Advisory: Familiarity with basic reading and writing skills, English alphabet letter names, numbers, and ability to follow directions and ESL Assessment Test Score: Level 3.</i> Offers practice in high beginning level reading comprehension, vocabulary acquisition and writing skills development for the ESL student who is still developing fluency. Three hours lecture.	
ESL 087	3 Units	ESL 373	3 Units
Advanced Sentence Structure: Written English <i>Prerequisite: Successful completion of ESL 078 or ESL 079 or ESL Assessment Test score: Level 1.</i> An advanced English course for non-native speakers focusing on the correct use of basic English structures in written communication. Knowledge of the structures reinforced and verified through written assignments. Continuation of ESL 079. Three hours lecture.		ESL Basic Oral Communication Skills <i>Course Advisory: Familiarity with basic reading and writing skills, English alphabet letter names, numbers, and ability to follow directions and ESL Assessment Test Score: Level 3.</i> For students still developing fluency in spoken English, this course offers practice in mastering the patterns of spoken American English through study of the English sound system (pronunciation), conversation strategies, related grammar, writing, and spelling at a high-beginning level of proficiency with oral communication and listening as the focus. Three hours lecture.	
ESL 100	3 Units	ESL 374	3 Units
Health Professionals: Exploring Career Goals in Health Care <i>Prerequisite: Eligibility for placement in ESL 077, 078, 079. Course Advisory: SCC minimum English and Math standards.</i> Designed for health care professionals with low-intermediate English language proficiency. Integrated language skills on themes such as career options and requirements in health care, job resumes and interviews in health care, and phone and email communication in health care settings. Three hours lecture.		ESL Basic Grammar A <i>Course Advisory: Familiarity with basic reading and writing skills, English alphabet letter names, numbers, and ability to follow directions and ESL Assessment Test Score: Level 3.</i> The major goals of this course are increasing fluency and comprehension in speaking, listening, reading and writing English through the careful, guided study of grammar: Present, future and past verb tenses, singular and plural nouns, constructing simple sentences, special verbs and patterns, idioms to facilitate communication, spelling and study skills for learning a language. Attendance, participation, completion of quizzes and homework assignments requiring reading and writing will determine the student's success in completing the course. Three hours lecture.	
ESL 101	3 Units		
Health Professionals: Communicating with Patients and Families <i>Prerequisite: Eligibility for placement in Level II ESL courses which are ESL 077, ESL 078, and ESL 079.</i> Designed for health care professionals with low-intermediate English language proficiency. Integrated language skills on themes such as discussion of treatment options with patients, patient-centered communication techniques, and strategies for communicating with special-needs patients. Three hours lecture.			