

Certificates and Degrees



Accounting

There are three certificate programs available in accounting: Accountant, Computerized Accounting Specialist, and Tax Preparation. Accounting majors intending to transfer to a four-year college should refer to the Business Administration transfer curriculum.

Accountant Certificate Program

This program meets a substantial portion of the 45-unit requirement to take the California CPA exam. It is intended primarily for students possessing a bachelor's degree or foreign university equivalent. In addition, completion of this certificate is helpful in securing entry-level accounting positions in business and industry. CPA EXAM AND LICENSURE: Please contact the California Board of Accountancy.

Course ID	Title	Units
ACCT 1A	Financial Accounting	4
ACCT 1B*	Managerial Accounting	4
<i>or</i>		
ACCT 203*	Cost Accounting	3
ACCT 202A*	Intermediate Accounting I	3
ACCT 202B*	Intermediate Accounting II	3
ACCT 216*	Individual Income Tax	4
ACCT 217*	Partnership and Corporate Taxation	3
ACCT 275*	Auditing	3
BUS 12	Business Law	3
<i>or</i>		
BUS 14	Legal Environment of Business	3
Total		26-27

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 189, 214, 289; BUS 1, 102, 103, 104, 125; CIM 1, 112, 171, 174, 174A, 216, 216C, 218, 229A; ECON 2, 4.

Computerized Accounting Specialist Certificate Program

This program provides students who plan to enter the accounting field with knowledge of accounting principles and practices to record transactions for various types of businesses using a double-entry accounting system, as well as the latest commercial software, and the ability to analyze financial statements.

Course ID	Title	Units
ACCT 1A	Financial Accounting	4
ACCT 1B*	Managerial Accounting	4
ACCT 216*	Individual Income Tax	4
CIM 216*+	Spreadsheets: Excel	3
CIM 223B*	Computerized Accounting: QuickBooks— Advanced	1.5
	Select from Restricted Electives	3
Total		19.5

Restricted Electives:

ACCT 120	Introduction to Financial Planning	3
ACCT 202A*	Intermediate Accounting I	3
ACCT 217*	Partnership and Corporate Taxation	3
ACCT 275*	Auditing	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

+Completion of the A and B versions of this course can also be used to fulfill this requirement.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 110, 189, 202A, 202B, 203, 214, 289; BUS 102, 103, 104, 125; CIM 1, 112, 171, 174, 174A, 216B, 216C, 218, 229A; ECON 2, 4.

Tax Preparation Certificate Program

This program provides students with sufficient knowledge of Federal and State of California tax law to prepare individual and small business tax returns and to obtain an entry-level position as a tax preparer.

Course ID	Title	Units
ACCT 1A	Financial Accounting	4
<i>or</i>		
ACCT 215	General Accounting	3
ACCT 216*	Individual Income Tax	4
ACCT 217*	Partnership and Corporate Taxation	3
BUS 12	Business Law	3
<i>or</i>		
BUS 14	Legal Environment of Business	3
CIM 216*+	Spreadsheets: Excel	3
CIM 223A*	Computerized Accounting: QuickBooks— Beginning	1.5
<i>or</i>		
CIM 223B*	Computerized Accounting: QuickBooks— Advanced	1.5
Total		17.5-18.5

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

+Completion of the A and B versions of this course can also be used to fulfill this requirement.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 120, 189, 202B, 203, 214, 220, 289; BUS 1, 102, 103, 104, 125; CIM 1, 10, 112, 171, 174, 174A, 216, 216B, 216C, 218, 229A; ECON 2. 4.

Administrative Assistant Certificate Program

The Administrative Assistant program prepares individuals for employment in key staff positions or enhances existing skills of office assistants, office managers, and other professionals.

Course ID	Title	Units
BUS 103	Business English	3
CIM 1	Introduction to Computer Information Systems	3
or		
CIM 10	Introduction to Information Systems	3
or		
CIM 112	Microsoft Office	
CIM 121C*	Keyboarding for Computers—Advanced	1.5
CIM 174+	Computer Operating Systems: Windows	3
CIM 214*+	Word Processing: Word	3
or		
CIM 214A*/B*	Word Processing: Word—Beginning/ Advanced	1.5, 1.5
CIM 216*+	Spreadsheets: Excel	3
CIM 227*	Internet and Web Essentials	1.5
CIM 230*	Business Presentations: PowerPoint	3
	Select from Restricted Electives	3
	Total	24

Restricted Electives:

BUS 102	Oral Business Techniques (meets AA Oral Communication requirement)	3
BUS 104*	Business Communication	3
BUS 125	Human Relations in Business	3
CIM 218*	Database: Access	3
CIM 221	Managing Projects with Microsoft Project	3
CIM 223A*/B*	Computerized Accounting: QuickBooks— Beginning/Advanced	1.5, 1.5
CIM 271A*/B*	Web Development: XHTML—Beginning/ Advanced	1.5, 1.5
CIM 272A*	Web 2.0 Design: Cascading Style Sheets- Beginning	1.5
CIM 272B*	Web Design and Web Development Overview- Intermediate	1.5
CIM 278A/B*	Web Development: Dreamweaver— Beginning/Advanced	1.5, 1.5

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

+Completion of the A and B versions of this course can also be used to fulfill this requirement.

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 1, 12, 125, CIM 189, 289.

American Sign Language Interpreting Certificate Program

The American Sign Language (ASL) Interpreting program is designed to prepare the student to serve as an interpreting intern in a variety of settings. Proficiency in ASL is valuable to professionals in special education, health sciences, audiology, and therapy.

Course ID	Title	Units
SL 1*	American Sign Language I	4
SL 2*	American Sign Language II	4
SL 3*	American Sign Language III	4
SL 4*	American Sign Language IV	4
SL 101	Deaf Culture and It's History	3
SL 103*	Sign Language Interpreting I	3
SL 104*	Sign Language Interpreting I Lab	1
SL 105*	Sign Language Interpreting II	3
SL 106*	Sign Language Interpreting II Lab	1
SL 107*	Interpreting Sign to Voice	3
	Total	30

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Completion of the following courses SL 1*, 2, 3, 4, 101 and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: SOC 1.

Anthropology Associate Degree Program

The curriculum in the Anthropology Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
ANTH 1	Biological Anthropology	3
ANTH 2	Cultural Anthropology	3
ANTH 3*	Culture and Language	3
ANTH 9	Introduction to Archaeology	3
	Select from Restricted Electives	9
Total		21

Restricted Electives:

ANTH 4	Native American Indian Culture	3
ANTH 6*	Global Issues in Anthropological Perspective	3
ANTH 7	Indians of Southern California	3
ANTH 8	World Prehistory	3
ANTH 10	Celtic Cultures	3
ANTH 13	Magic, Witchcraft, and Religion	3
ANTH 14	Introduction to Visual Culture	3
ANTH 15	Primate Behavior	3
ANTH 21	Women and Culture: Cross-Cultural Perspectives	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree**Associate in Arts Degree**

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: BIO 11*, 12; GEOL 2; HIST 20/SOC 20; MATH 10*; PSYC 16; SOC 1.

Aquarium and Aquaculture Science Certificate Program

The Aquarium and Aquaculture Science certificate program provides students with career preparation for entry-level work in public aquarium, interpretive/education centers, pet industry, private business, or aquaculture related venues. For those already in the field, a skills upgrade in the latest techniques and information relating to water chemistry and toxicology, filtration, life support and habitat design, culture protocols, health, nutrition and disease, and equipment will be covered using hands-on application and innovative scientific approach. Current industry standards, state and federal regulations, and licensing are addressed. Through guided practical and technical experience, field trips, and internships, students will acquire good husbandry skills required to properly care for aquatic organisms and the dynamics involved in aquarium science.

Course ID	Title	Units
MST 10	Introduction to Aquaculture	3
MST 100	Aquarium Systems	3
MST 101*	Aquarium Management	1.5
MST 203	Ecology of Captive Aquatic Fish and Invertebrates	3
MST 204	Aquatic Animal Health and Disease Management	3
MST 205	Water Quality and Toxicity for Aquatic Systems	3
MST 206*	Aquatic System Design and Life Support	3
MST 207*	Internship: Aquarium and Aquaculture	1.5

and

CWE 168*	Cooperative Work Experience: Aquarium and Aquaculture	1
Total		22

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

It is strongly recommended that students seeking cooperative work experience internships at public aquariums, obtain an Open Water SCUBA Certification from a reputable and nationally recognized organization (PADI, NAUI, etc.), and complete a basic first aid, CPR, and Dan oxygen administration course(s).

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0, qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BIO 3A* or BIO 19/ENV 19*; CHEM 108; CIM 1; MATH 351

Architectural Drafting Certificate Program

This occupational program is a two-year sequence of courses designed for students who wish to train for employment in architecture or a field related to the construction industry.

Course ID	Title	Units
First Year		
ARCH 10	Introduction to Architecture	2
ARCH 12	History of Architecture	3
ARCH 50*/DR 50*	Introduction to Computer-Aided Drafting	3
ARCH 51*/DR 51*	Computer-Aided Drafting	3
ARCH 124A	Architectural Drawing I	4
ARCH 124B*	Architectural Drawing II	4
Second Year		
ARCH 42*	Descriptive Drawing and Perspective	3
ARCH 122	Architectural Practice	2
ARCH 124C*	Architectural Drawing III	4
ARCH 126	Materials and Methods of Construction	3
ARCH 132*	Residential Planning Principles and Design	3
ARCH 152*/DR 152*	Advanced Computer-Aided Drafting	3
	Select from Restricted Electives	3-4
Total		40-41

Restricted Electives:

ARCH 44	Architectural Presentation and Rendering	2
ARCH 161	Blueprint Plans and Specification Reading	4
ARCH 163	Uniform Building Code Inspection	4
ARCH 164*	Combination Residential Dwelling Inspection	3
ARCH 165	Electrical Code Inspection	3
ARCH 211	Concrete Inspection	3
ARCH 212	Drains, Waste, Vents, Water and Gas	3
ARCH 213	Mechanical Code: Heating, AC, Refrigeration, and Ductwork	3
ARCH 214	Code Enforcement and Disabled Access	3
ARCH 289	Special Topics	3-4
DR 289	Special Topics	3-4

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ARCH 34, 44, 136; ART 40, 41, 80

Art Associate Degree Program

The curriculum in the Art Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
First Year		
ART 40	Two-Dimensional Design	3
ART 41*	Three-Dimensional Design	3
ART 80	Beginning Drawing	3
	Select three units from Options	3
Second Year		
ART 25	Survey of Art History: Ancient Worlds to Gothic	3
ART 26	Survey of Art History: Renaissance to Modern	3
ART 50*	Beginning Painting	3
ART 85*	Beginning Life Drawing	3
	Select six units from Restricted Electives	6
	Total	30

Restricted Electives:

ART 20, 21, 22, 23, 24, 28, 29, 100; FA 27; MUS 20; TA 20

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

OPTIONS: A minimum of six units should be taken from one of the following course areas dependent upon students interest: ceramics, drawing, gallery exhibition, graphics, art history, painting, printmaking, sculpture, jewelry, or photography. See the Announcement of Courses section of the catalog.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer also to transfer patterns section of this catalog or to the catalog of the intended college of transfer. Consult with a counselor for assistance in planning a transfer program.

Astronomy Associate Degree Program

The curriculum in the Astronomy Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate in Science degree:

Course ID	Title	Units
First Year		
ASTR 20	General Astronomy	3
	<i>and</i>	
ASTR 25*	Observational Astronomy	3
CS 1A	Introduction to Computer Science	3
MATH 3A*	Analytic Geometry and Calculus	5
MATH 3B*	Analytic Geometry and Calculus	5
PHYS 4A*	General Physics	5
Second Year		
PHYS 4B*	General Physics	5
PHYS 4C*	General Physics	5
	Total	34

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of all the courses listed above and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: ASTR 45

Automotive Technology

The Automotive Technology programs are designed to prepare students for employment as automotive technicians. Students may also complete their Associate in Science or Associate in Arts Degree requirements and prepare to transfer to a four-year college. Training is given in both theory and practical skills in the operation, maintenance, and repair of all types of automotive systems. The following four certificate options are available: Automotive Chassis Specialist, Automotive Engine Service Specialist, Automotive Engine Performance Specialist, and General Automotive Technician.

Automotive Chassis Specialist Certificate Program

This program allows a student to prepare for a career with drivetrain emphasis. This program is ideal for the small-business owner, independent shop, or the dealership career-oriented technician.

Course ID	Title	Units
AUTO 100	Automotive Fundamentals	3
AUTO 105*	Automotive Power Train	3
AUTO 106A*	Automotive Suspension and Alignment	3
AUTO 106B*	Automotive Brakes	3
AUTO 107*	Automatic Transmissions	3
AUTO 108*	Automotive Air Conditioning	3
	Select from Restricted Electives	.5-4
Total		18.5-22

Restricted Electives:

AUTO 109*	California B.A.R. Basic Area Clean Air Car Course	5
AUTO 189/289	Special Topics	1-3
AUTO 201*	Advanced Automotive Electrical	3
AUTO 205*	Advanced Smog Update Training	.5
AUTO 207*	Automotive Engineering Fundamentals	3
AUTO 220*	Alternative Propulsion Systems	3
CWE 168*/169*†	Cooperative Work Experience: Automotive	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†CWE 168/169 should be taken after completing at least 9 units of the Automotive Chassis Specialist Certificate program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Automotive Engine Performance Specialist Certificate Program

This program allows a student to prepare for a career with an emphasis in engine performance. The student will be qualified to take the State of California Bureau of Automotive Repair Smog License exam upon completion of this program.

Course ID	Title	Units
AUTO 100	Automotive Fundamentals	3
AUTO 101*	Automotive Electrical System	3
AUTO 102*	Automotive Engine Performance/Electronics and Ignition Systems	3
AUTO 103*	Automotive Engine Performance/Fuel and Emissions Systems	3
AUTO 109*	California B.A.R. Basic Area Clean Air Car Course	5
AUTO 205*	Advanced Smog Update Training	.5
AUTO 207*	Automotive Engineering Fundamentals	3
	Select from Restricted Electives	3
Total		23.5

Restricted Electives:

AUTO 108*	Automotive Air Conditioning	3
AUTO 189/289	Special Topics	1-3
AUTO 200	Enhanced Area Clean Air Car Course	2
AUTO 201*	Advanced Automotive Electrical	3
AUTO 202	Advanced Engine Performance Diagnosis	3
AUTO 220*	Alternative Propulsion Systems	3
CWE 168*/169*†	Cooperative Work Experience: Automotive	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†CWE 168/169 should be taken after completing at least 9 units of the Automotive Tune-up Specialist Certificate program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Automotive Engine Service Specialist Certificate Program

This program prepares a student for a career as an automotive machinist. Emphasis is on detailed instruction in all phases of engine machining and blueprinting procedures. Students will rebuild a complete engine in a two-semester course sequence. Designed for the student considering working in an automotive machine shop.

Course ID	Title	Units
AUTO 100	Automotive Fundamentals	3
AUTO 102*	Automotive Engine Performance/Electronics and Ignition Systems	3
AUTO 103*	Automotive Engine Performance/Fuel and Emissions Systems	3
AUTO 104A*	Automotive Engines	5
AUTO 104B*	Automotive Engines	5
	Select from Restricted Electives	.5-4
Total		19.5-23

Restricted Electives:

AUTO 108*	Automotive Air Conditioning	3
AUTO 109*	California B.A.R. Basic Area Clean Air Car Course	5
AUTO 189/289	Special Topics	1-3
AUTO 204*	High Performance Engine Blueprinting	3
AUTO 205*	Advanced Smog Update Training	.5
AUTO 207*	Automotive Engineering Fundamentals	3
AUTO 220*	Alternative Propulsion Systems	3
CWE 168*/169*†	Cooperative Work Experience: Automotive	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†CWE 168/169 should be taken after completing at least 9 units of the Automotive Engine Service Specialist Certificate program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

General Automotive Technician Certificate Program

This program provides students with knowledge of all operating systems in the modern automobile. Ideal for the small business owner, independent shop, or the dealership career-oriented technician.

Course ID	Title	Units
AUTO 100	Automotive Fundamentals	3
AUTO 101*	Automotive Electrical System	3
AUTO 102*	Automotive Engine Performance/Electronics and Ignition Systems	3
AUTO 103*	Automotive Engine Performance/Fuel and Emissions Systems	3
AUTO 104A*	Automotive Engines	5
AUTO 104B*	Automotive Engines	5
AUTO 105*	Automotive Power Train	3
AUTO 106A*	Automotive Suspension and Alignment	3
AUTO 106B*	Automotive Brakes	3
AUTO 207*	Automotive Engineering Fundamentals	3
	Select from Restricted Electives	.5-4
Total		34.5-38

Restricted Electives:

AUTO 107*	Automotive Transmissions	3
AUTO 108*	Automotive Air Conditioning	3
AUTO 109*	California B.A.R. Basic Area Clean Air Car Course	5
AUTO 200	Enhanced Area Clean Air Car Course	2
AUTO 201*	Advanced Automotive Electrical	3
AUTO 202	Advanced Engine Performance Diagnosis	3
AUTO 205*	Advanced Smog Update Training	.5
AUTO 220*	Alternative Propulsion Systems	3
CWE 168*/169*†	Cooperative Work Experience: Automotive	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†CWE 168/169 should be taken after completing at least 9 units of the General Automotive Mechanic Certificate program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Biology Associate Degree Program—Biological Science

The curriculum in the Biology Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate in Science degree:

Course ID	Title	Units
First Year		
BIO 3A*	General Biology I	5
BIO 3B*	General Biology II	5
CHEM 1A*†	General Chemistry	5
CHEM 1B*	General Chemistry	5
Second Year		
BIO 3C*	Biochemistry and Molecular Biology	5
CHEM 12A*	Organic Chemistry	5
CHEM 12B*	Organic Chemistry	5
Total		35

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†NOTE: Students who have not successfully completed a year of high school chemistry should enroll in CHEM 3* prior to CHEM 1A*. NOTE: MATH prerequisite for CHEM 1A*, 3*; BIO 3A*.

Associate Degree

Associate in Science Degree

Completion of all the courses listed above and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer also to transfer patterns section of this catalog or to the catalog of the intended college of transfer. Consult with a counselor or biology instructor for assistance in planning alternative programs.

RECOMMENDED ELECTIVES: BIO 11*, 12 or 15; MATH 3A* or 11; PHYS 2A*, 2B or 4A, 4B

Business Administration Associate Degree Program

Business Administration

The curriculum in the Business Administration Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

<i>Course ID</i>	<i>Title</i>	<i>Units</i>
ACCT 1A	Financial Accounting	4
ACCT 1B*	Managerial Accounting	4
BUS 1	Introduction to Business	3
BUS 12	Business Law	3
or		
BUS 14	Legal Environment of Business	3
BUS 104*	Business Communication	3
CIM 1	Introduction to Computer Information Systems	3
or		
CIM 10	Introduction to Information Systems	3
ECON 2	Principles (Macro)	3
ECON 4*	Principles (Micro)	3
MATH 11*	A Brief Course in Calculus	5
Total		31

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: BUS 116, 120, 125, 135, 150, 260; ENG 1A*; MATH 9, 10; PHIL 12* or 15.

Business and Commerce

The curriculum in the Business and Commerce—General Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

<i>Course ID</i>	<i>Title</i>	<i>Units</i>
ACCT 1A	Financial Accounting	4
BUS 1	Introduction to Business	3
or		
BUS 150	Survey of International Business	3
BUS 102	Oral Business Techniques (meets AA Oral Communication requirement)	3
BUS 103	Business English	3
BUS 104*	Business Communication	3
BUS 120	Essentials of Business Management	3
BUS 125	Human Relations In Business	3
CIM 1	Introduction to Computer Information Systems	3
or		
CIM 10	Introduction to Information Systems	3
or		
CIM 120	Computer Literacy	1.5
Total		23.5-25

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Alternative major patterns will vary dependent upon the student's career or educational objectives. For example, students contemplating a career in Business Management with a liberal arts transfer major may support efforts to gain entry-level employment by contemplating an Associate degree major in business management. The following transferable courses are suggested: ACCT 1A, 1B; BUS 1, BUS 12 or 14, BUS 104*; and CIM 1. The student who has demonstrated breadth in business sciences by completion of a minimum of 18 units, in addition to those required to fulfill general education requirements, of courses appropriate for majors in accounting, computer and information management, business management, real estate, or office information systems may receive an Associate degree in business and commerce.

Refer to the Transfer Pattern section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. With proper planning, students can complete an Associate degree major with courses accepted by both the University of California and the California State University. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: It is suggested that career goals be discussed with a Business Science faculty member and a counselor to determine the optimum elective selection; however, courses appropriate for majors in Business Science are generally recommended.

Business Management

The Business Management programs are designed for the development of a high quality manager for whom there is an ever-growing need. The Business Management curriculum is structured to furnish a broad preparation for careers in business at the mid-management levels. There are six unique programs and two Occupational Skills Awards to choose from. Transfer Business Management majors should refer to the Business Administration Transfer Program.

Business Leadership Certificate Program

The Business Leadership program is designed to increase the ability to succeed in a highly competitive work environment.

<i>Course ID</i>	<i>Title</i>	<i>Units</i>
BUS 1	Introduction to Business	3
or		
BUS 150	Survey of International Business	3
or		
BUS 160	Small Business Management	3
BUS 102	Oral Business Techniques (meets AA Oral Communication requirement)	3
BUS 104*	Business Communication	3
BUS 120	Essentials of Business Management	3
BUS 125	Human Relations in Business	3
BUS 135	Elements of Marketing	3
or		
BUS 137	Professional Selling Fundamentals	3
or		

BUS 195*†	Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Business Management	2
	Total	18

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Business Marketing Certificate Program

The Business Marketing program offers a focus of courses designed to improve student success in the field of promotion, personal selling, and advertising.

Course ID	Title	Units
BUS 1	Introduction to Business	3
<i>or</i>		
BUS 150	Survey of International Business	3
<i>or</i>		
BUS 160	Small Business Management	3
BUS 102	Oral Business Techniques (meets AA Oral Communication requirement)	3
<i>or</i>		
BUS 138/CA 138	Advertising	3
BUS 104*	Business Communication	3
BUS 125	Human Relations in Business	3
BUS 135	Elements of Marketing	3
BUS 136	Principles of Retailing	3
<i>or</i>		
BUS 137	Professional Selling Fundamentals	3
<i>or</i>		
BUS 195*†	Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Business Marketing	2
	Total	18

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements

International Business Certificate Program

Technology and international commerce have redefined business in a global context. The International Business program prepares students for careers in international business and industries that deal with international trade and global markets. The program focuses on the dynamics of international organization, environments, trade, language, socioeconomic and cultural forces, political and legal issues, and emerging global markets. Completion of the recommended electives demonstrates global competencies in international business. Elective courses provide specialized areas of study. Transfer International Business majors should refer to the Business Administration transfer curriculum.

Course ID	Title	Units
BUS 1	Introduction to Business	3
BUS 12	Business Law	3
<i>or</i>		
BUS 14	Legal Environment of Business	3
BUS 135	Elements of Marketing	3
BUS 150	Survey of International Business	3
BUS 160	Small Business Management	3
<i>or</i>		
BUS 195*†	Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: International Business	2
BUS 260	Strategies for Exporting and Importing	3
	Total	18

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of Completion of the certificate program listed above and a minimum of levels 1 and 2 of a foreign language, and HUM 21 or ANTH 20/SP 20, and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 104*, 116, 120, 125, 189.

Professional Retailing Certificate Program

Success in business roles and merchandising is often found in the skills of management, promotion, or merchandising. The Professional Retailing program is designed to allow a choice of additional study in one of the three skill areas.

Course ID	Title	Units
BUS 1	Introduction to Business	3
BUS 125	Human Relations in Business	3
BUS 137	Professional Selling Fundamentals	3
BUS 195*†	Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Business	1-4
CIM 112	Microsoft Office	3
	Select one Specialty Industry Area	12
Total		26-29

Specialty Industry Areas

Area I—Management

BUS 12	Business Law	3
<i>or</i>		
BUS 14	Legal Environment of Business	3
BUS 103	Business English	
<i>or</i>		3
BUS 135	Elements of Marketing	
BUS 104*	Business Communication	
BUS 120	Essentials of Business Management	

Area II—Promotion

BUS 135	Elements of Marketing	3
BUS 138/CA 138	Advertising	3
GC 101	Introduction to Graphic Communication	3
FASH 150	Fashion Apparel and Professional Techniques	3

Area III—Merchandising

BUS 31/FASH 31	Textiles	3
BUS 135	Elements of Marketing	3
BUS 136	Principles of Retailing	3
<i>or</i>		
BUS 143/FASH 143	Fashion Buying and Merchandising	3
BUS 147/FASH 147	Special Events Coordination and Promotion	
BUS 148/FASH 148	Visual Merchandising	

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 12, 102, 103, 104, 116, 135, 138, 147, 150, 260, 290; CIM 1, 10, 120, 121A, 171, 174, 174A, 174; FASH 140, 144, 150.

Retail Management Certificate Program

The Retail Management program, designed by managers of major retail corporations, prepares individuals to be effective managers or for promotion to management in the retail industry. The curriculum assists student's understanding of the scope of the retail manager's job and the requirements for success. Completion of the certificate in Retail Management enhances the opportunity for entry employment as well as advancement in a retail career.

Course ID	Title	Units
ACCT 1A	Financial Accounting	4
<i>or</i>		
ACCT 215	General Accounting	3
ACCT 214	Business Analysis and Calculations	3
BUS 102	Oral Business Techniques (meets AA Oral Communication requirement)	3
BUS 104*	Business Communication	3
BUS 120	Essentials of Business Management	3
BUS 125	Human Relations in Business	3
BUS 135	Elements of Marketing	3
BUS 136	Principles of Retailing	3
BUS 221	Human Resources Management	3
CIM 1	Introduction to Computer Information Systems	3
<i>or</i>		
CIM 10	Introduction to Information Systems	
Total		30-31

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

RECOMMENDED ELECTIVES: BUS 12 or 14, 116, 137, 138, 150, 260.

Small Business Management Certificate Program

Provides a planned business approach to developing and managing your own small business.

Course ID	Title	Units
BUS 12	Business Law	3
<i>or</i>		
BUS 14	Legal Environment of Business	3
BUS 104*	Business Communication	
BUS 120	Essentials of Business Management	3
<i>or</i>		
BUS 125	Human Relations in Business	3
<i>or</i>		
BUS 150	Survey of International Business	3
BUS 135	Elements of Marketing	
<i>or</i>		3
BUS 136	Principles of Retailing	
<i>or</i>		1
BUS 195*†	Internship	
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Business Management	2
BUS 137	Professional Selling Fundamentals	3
BUS 160	Small Business Management	3
Total		18

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Human Resources Management Occupational Skills Award

The Human Resources Management Occupational Skills Award is designed to increase the ability to succeed in an emerging and evolving work environment. The curriculum assists student's understanding of the scope of human resources management and the requirements for success. Completion of the program in Human Resources Management enhances the opportunity for entry employment as well as advancement in a career.

Course ID	Title	Units
BUS 120	Essentials of Business Management	3
BUS 125	Human Relations in Business	3
BUS 221	Human Resources Management	3
Total		9

Project Management Occupational Skills Award

The Project Management Occupational Skills Award provides the opportunity to master the necessary management concepts to successfully complete projects with an effective level of leadership, planning, and teamwork. The courses assist in the development of the needed skills to ultimately gain personal confidence and trust of others to lead a project management team. Completion of this program increases the value of the management skills needed for entry-level employment as well as advancement in a career.

Course ID	Title	Units
BUS 120	Essentials of Business Management	3
BUS 125	Human Relations in Business	3
CIM 221	Managing Projects with Microsoft Project	3
Total		9

Chemistry Associate Degree Program

The curriculum in the Chemistry Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment at the technician level in government agencies and many areas of industry and manufacturing such as petroleum, foods, pharmaceuticals, plastics, and textiles.

Suggested courses for the Associate in Science degree:

Course ID	Title	Units
First Year		
CHEM 1A*†	General Chemistry	5
CHEM 1B*	General Chemistry	5
Second Year		
CHEM 12A*	Organic Chemistry	5
CHEM 12B*	Organic Chemistry	5
Total		20

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†NOTE: Students who have not successfully completed a year of high school chemistry should complete CHEM 3* prior to enrolling in CHEM 1A*. NOTE: MATH prerequisite for both CHEM 3* and 1A*.

Associate Degree

Associate in Science Degree

Completion of all the courses listed above and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer also to the Transfer Pattern section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: BIO 3C*; MATH 3A*, 3B; PHYS 2A*, 2B or 4A, 4B.

Child Development and Educational Studies Certificate Program

The mission of the Saddleback College Child Development and Educational Studies program is:

To prepare students with theory-based, hands-on early childhood teacher education enabling them to provide developmentally appropriate care and teaching practices in settings designed for young children.

To offer courses that will enable students to meet state certification requirements for early childhood teachers.

To prepare students for transfer to four-year child development and early childhood education programs to further their educational and career goals.

The core courses of the program are designed to prepare students with strong foundational skills for early childhood teaching practice, and the electives allow students to go more in depth into areas of their choosing.

The recommended preparations are chosen to guide the students to the most successful learning experiences.

Each of the awards and certificates are aligned with current State certification requirements for teachers of young children. Students are encouraged to apply for both the college certificate as well as the State Child Development Permit.

Early Childhood Teacher Certificate Program

This certificate is designed to meet the coursework requirements at the Teacher level for the State of California Children's Center Permit and prepares students to be competent and effective teachers in early childhood classrooms.

A minimum grade of 'C' in each course is required to receive the award or certificate.

CORE COURSES

Course ID	Title	Units
CDES 101*	Principles of Early Childhood Learning, Play, and Programs	3
CDES 105*	Child, Family, and Community	3
<i>or</i>		
SOC 15	Socialization	3
CDES 110*	Early Childhood Curriculum and Practice I	3
CDES 112*	Health, Safety, and Nutrition	3
CDES 120*	Observation and Assessment	3
PSYC 7	Developmental Psychology: Childhood and Adolescence	3

Developmental Courses

CDES 121*	Early Childhood Curriculum and Practice II: Supervised Field Experience	5
	Select from Restricted Electives	6

Restricted Electives:

CDES 111*	Child Guidance and Communication	3
CDES 113*	Math, Science, and Technology	3
CDES 114*	Creative and Dramatic Arts	3
CDES 115*	Language, Literacy, and Literature	3
CDES 117*	Culture and Diversity in Classrooms	3
CDES 240*	Music and Movement	3

And

General Education Courses 16
Must include at least one degree-applicable course in each of the following four areas: English/ Language Arts, Science or Math, Social Sciences, Humanities/Fine Arts

Total 45

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Educational Assistant: School Age Children and Youth Certificate Program

The purpose of the Educational Assistant certificate is to provide a system of professional development for individuals working as educational assistants in a variety of elementary classroom settings. It meets the coursework requirement for the School Age Child Development Permit at the Teacher level.

A minimum grade of 'C' in each course is required to receive the award or certificate.

CORE COURSES

Course ID	Title	Units
CDES 101*	Early Childhood Learning, Play, and Programs	3
CDES 105*	Child, Family, and Community	3
<i>or</i>		
SOC 15	Socialization	3
CDES 110*	Early Childhood Curriculum and Practice I	3
CDES 112*	Health, Safety, and Nutrition	3
CDES 120*	Observation and Assessment	3
PSYC 7	Developmental Psychology: Childhood and Adolescence	3

Developmental courses

CDES 90*	Explorations of K-12 Education	3
CDES 111*	Child Guidance and Communication	3
CDES 125*	School Age Children and Youth	3
	Select from Restricted Electives	3

Restricted Electives:

CDES 116*	Teaching in Multilingual Classrooms	3
CDES 117*	Culture and Diversity in Classrooms	3
CDES 118*	Exceptional Children	3
CDES 119*	Perceptual Motor Development	3
CDES 131*	Educational Psychology	3
CDES 240*	Music and Movement	3

And

General Education Courses 16
Must include at least one degree-applicable course in each of the following four areas: English/ Language Arts, Science or Math, Social Sciences, Humanities/Fine Arts

Total 45

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Master Teacher Certificate

This certificate is designed to meet the coursework requirements at the Master Teacher level for the State of California Children's Center Permit and prepares students to be competent teachers in early childhood classrooms and effective supervisors and mentors of other adults in the classroom.

A minimum grade of 'C' in each course is required to receive the award or certificate.

CORE COURSES

Course ID	Title	Units
CDES 101*	Early Childhood Learning, Play, and Programs	3
CDES 105*	Child, Family, and Community	3
<i>or</i>		
SOC 15	Socialization	3
CDES 110*	Early Childhood Curriculum and Practice I	3
CDES 112*	Health, Safety, and Nutrition	3
CDES 120*	Observation and Assessment	3
PSYC 7	Developmental Psychology: Childhood and Adolescence	3

Developmental course

CDES 121*	Early Childhood Curriculum and Practice II: Supervised Field Experience	5
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Supervision course

CDES 127	Adult Supervision and Mentor Practices	2
	Select one Specialty Area	6

Specialty Areas:**Diversity**

CDES 116*	Teaching in Multilingual Classrooms	3
CDES 117*	Culture and Diversity in Classrooms	3

Special Needs

CDES 118*	Exceptional Children	3
CDES 119*	Perceptual Motor Development	3

School Age Children and Youth

CDES 90*	Explorations in K-12 Education	3
CDES 125*	School Age Children and Youth	3

Infancy

CDES 123*	Infant and Toddler Development	3
CDES 133*	Infant and Toddler Curriculum and Group Care	3

Creative Arts

CDES 114*	Creative and Dramatic Arts	3
CDES 240*	Music and Movement	3

Language and Literacy

CDES 115*	Language Arts, Literature, and Literacy	3
CDES 116*	Teaching in Multilingual Classrooms	3

Technology

CDES 113*	Math, Science, and Technology	3
PHOT 51*	Intro to Digital Imaging	3

And

General Education Courses	16
Must include at least one degree-applicable course in each of the following four areas: English/ Language Arts, Science or Math, Social Sciences, Humanities/Fine Arts	

Total 47

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Infant Toddler Teacher Certificate

This certificate meets the coursework requirements of the Teacher level Child Development Permit and prepares students to be competent and effective teachers and caregivers in infant and toddler classrooms.

A minimum grade of 'C' in each course is required to receive the award or certificate.

CORE COURSES

Course ID	Title	Units
CDES 101*	Early Childhood Learning, Play, and Programs	3
CDES 105*	Child, Family, and Community	3
or		
SOC 15	Socialization of the Child	3
CDES 110*	Early Childhood Curriculum and Practice I	3
CDES 112*	Health, Safety, and Nutrition	3
CDES 120*	Observations and Assessment	3
PSYC 7	Developmental Psychology: Childhood and Adolescence	3

Developmental Courses

CDES 123*	Infant and Toddler Development	3
CDES 133*	Infant and Toddler Group Care and Programming	3
CDES 124†	Infant and Toddler: Practicum	1
with		
CWE 168*/169*†	Cooperative Work Experience	2

And

General Education Courses	16
Must include at least one degree-applicable course in each of the following four areas: English/ Language Arts, Science or Math, Social Sciences, Humanities/Fine Arts	

Total 43

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description

† Must be taken concurrently

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Associate Teacher Occupational Skills Award

This award meets the minimum coursework requirements for teaching in children's centers regulated by Title 22 and the coursework requirements for the Associate Teacher level of the State of California Children's Center Permit.

Course ID	Title	Units
CDES 101*	Principles of Early Childhood Learning, Play, and Programs	3
CDES 105*	Child, Family, and Community	3
or		
SOC 15	Socialization	3
CDES 110*	Early Childhood Curriculum and Practice I	3
PSYC 7	Developmental Psychology: Childhood and Adolescence	3
Total		12

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Computer and Information Management

The Computer and Information Management program includes industry standard programs that prepare students for careers using technology in the business workplace. The programs are: Applications Developer, E-Commerce Specialist, Network Administrator, Software Specialist, Web Designer, and Webmaster.

Applications Developer Certificate Program

This program is designed to prepare the student for entry-level employment as an applications developer.

Course ID	Title	Units
CIM 2A	Business Programming I: Visual Basic	3
CIM 7A*	Business Programming: Java—Beginning	3
CIM 205A	Web Development and DB: Intro to SQL and MySQL	3

CIM 251*	Introduction to Networking	3
CIM 260A*	Microsoft ASP.NET—Beginning	3
CIM 269A*	Web Development: JavaScript—Beginning	1.5
CIM 271A*	Web Development: XHTML—Beginning	1.5
	Select from Restricted Electives	3
Total		18

Restricted Electives:

CIM 2B*	Business Programming II: Visual Basic	3
CIM 6A	Business Programming I: C++	3
CIM 6B*	Business Programming II: C++	3
CIM 7B*	Business Programming: Java—Advanced	3
CIM 172*	Computer Operating Systems: Unix/Linux	3
CIM 205B*	Web Development and DB: LAMP (Linux/Apache/MySQL/PHP)	3
CIM 225	Web Development: PHP	3
CIM 246*	Application Development for Excel with Visual Basic	3
CIM 248*	Visual Basic for Applications—Access	3
CIM 257*	Network and Security Administration using Unix/Linux	3
CIM 260B*	Microsoft ASP.NET—Advanced	3
CIM 269B*	Web Development: Advanced JavaScript/CSS/SML/DOM/AJAX	3
CIM 271B*	Web Development: XHTML—Advanced	1.5
CIM 289	Special Topics	1.5-3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 1A, 1B; BUS 1, 12; CIM 112, 121A, 189, 227, 251, 252, 289; ECON 2, 4; MATH 9, 10.

E-Commerce Specialist Certificate Program

The E-Commerce Specialist Certificate program prepares the student to apply business functions to the web. All types of business sectors and activities can be web-based, including retail, wholesale, import-export, human resources, customer service, or departments within an organization. Electronic commerce, or e-commerce, is used in public and private business, both profit and non-profit sectors, in corporations, government, small businesses, professional associations, and personal applications as well. This program provides the skills for conducting business on the web, preparing an electronic approach, and managing an e-commerce web presence.

Course ID	Title	Units
CIM 218*	Database: Access	3
CIM 271A*/271B*	Web Development: XHTML— Beginning/Advanced	1.5, 1.5
CIM 272A*	Web 2.0 Design: Cascading Style Sheets—Beginning	1.5
CIM 272B*	Web Design and Web Development Overview—Intermediate	1.5
CIM 277*	E-Commerce and Web Site Design	3

CIM 278A	Web Development: Dreamweaver— Beginning	1.5
CIM 298*‡	Web Design: Capstone Portfolio Project Select from Restricted Electives	1.5 6
Total		21

Restricted Electives:

BUS 135	Elements of Marketing	3
BUS 138/CA 138	Advertising	3
BUS 195*†	Internship	1
	<i>and</i>	
CWE 168*/169*†	Cooperative Work Experience: Computer and Information Management	1
CIM 225	Web Development: PHP	3
CIM 264A/B*	Web Animation: Flash—Beginning/ Intermediate	1.5, 1.5
CIM 264C*	Web Animation: Flash and ActionScript— Beginning	3
CIM 264D*	Web Animation: Advanced Flash Sites and ActionScript Hacks	1.5
CIM 275	Web Marketing/Positioning	1.5
CIM 278B*	Web Development: Dreamweaver— Advanced	1.5
CIM 279*	Information Security Fundamentals	3
CIM 281	Web Development: Macromedia Fireworks	1.5
CIM 289	Special Topics	1.5-3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

‡Final course to be taken

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Network Administrator Certificate Program

This program prepares the student for an entry-level position as an information systems network administrator.

Course ID	Title	Units
CIM 1	Introduction to Computer Information Systems	3
	<i>or</i>	
CIM 10	Introduction to Information Systems	
	<i>or</i>	
CIM 112	Microsoft Office	
CIM 171*	Computer Operating Systems: Windows Command Line—Interface	3
CIM 172*	Computer Operating Systems: Unix/Linux	3
CIM 174+	Computer Operating Systems: Windows	3
CIM 251*	Introduction to Networking	3
CIM 252*	Networking Essentials and Technologies Select from Restricted Electives	3 6
Total		24

Restricted Electives:

CIM 7A*/B*	Business Programming: Java—Beginning/Advanced	3, 3
CIM 218*	Database: Access	3
CIM 227*	Internet and Web Essentials	1.5
CIM 230*	Business Presentations: PowerPoint	3
CIM 253*	Supporting Windows Server	3
CIM 254*	Windows Server Active: Directory Administration	3
CIM 256*	Fundamental Unix/Linux System Administration	3
CIM 257*	Network and Security Administration using Unix/Linux	3
CIM 258*	Advanced Network and Security Administration using Unix/Linux	3
CIM 259*	Windows Network Infrastructure Administration	3
CIM 271A*/B*	Web Development: XHTML—Beginning/Advanced	1.5, 1.5
CIM 279*	Information Security Fundamentals	3
CIM 289	Special Topics	3
CIM 297	Interconnecting CISCO Network Devices	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

+Completion of the A and B versions of this course can also be used to fulfill this requirement.

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: CIM 1, 2A, 2B, 4, 6A, 214, 216, 216A, 218, 227, 229A; ECON 2, 4; ET 215, 220, 225, 230.

Software Specialist Certificate Program

The Software Specialist Certificate program prepares the student for an entry-level position as a knowledge worker in the technical work environment using industry-standard software packages.

Course ID	Title	Units
CIM 1	Introduction to Computer Information Systems	3
or		
CIM 10	Introduction to Information Systems	3
or		
CIM 112	Microsoft Office	1.5
CIM 121A	Keyboarding for Computers—Beginning	
CIM 174+	Computer Operating Systems: Windows	3
CIM 227*	Internet and Web Essentials	1.5
CIM 230*	Business Presentations: PowerPoint	3
	Select from Restricted Electives	9
	Total	21

Restricted Electives:

CIM 121B*/C*	Keyboarding for Computers—Intermediate/Advanced	1.5, 1.5
CIM 171*	Computer Operating Systems: Windows Command Line—Interface	3
CIM 172*	Computer Operating Systems: Unix/Linux	3

CIM 214*	Word Processing: Word	3
or		
CIM 214A*/B*	Word Processing: Word—Beginning/Advanced	1.5, 1.5
CIM 216*+	Spreadsheets: Excel	3
CIM 216C*	Spreadsheets: Excel—Advanced	1.5
CIM 218*	Database: Access	3
CIM 223A*	Computerized Accounting: QuickBooks—Beginning	1.5
or		
CIM 223B*	Computerized Accounting: QuickBooks—Advanced	1.5
CIM 246*	Visual Basic for Applications: Excel	3
CIM 248*	Visual Basic for Applications—Access	3
CIM 249*	Administering Microsoft Windows Clients	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

+Completion of the A and B versions of this course can also be used to fulfill this requirement.

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 214, 215; CIM 121C*, 172, 214, 216, 216A, 216B, 218, 229A, 230, 251, 252; ECON 2, 4.

Web Designer Certificate Program

The Web Designer Certificate program prepares the student to develop a web presence for businesses, organizations, and individuals in communication, marketing, and data management through the development of a website. Students will learn how to reach an audience and communicate ideas. The program includes basic and advanced software skills, developing a mission, goals, and the promotion and maintenance of a website. Students may choose electives to round out their program.

Course ID	Title	Units
CIM 264A/B*	Web Animation: Flash—Beginning/Intermediate	1.5, 1.5
CIM 271A*/B*	Web Development: XHTML—Beginning/Advanced	1.5, 1.5
CIM 274A	Web Digital Imagery: Photoshop—Beginning	1.5
CIM 278A/B*	Web Development: Dreamweaver—Beginning/Advanced	1.5, 1.5
CIM 298*‡	Web Design: Capstone Portfolio Project	1.5
	Select from Restricted Electives	6
	Total	18

Restricted Electives:

BUS 195*†	Internship	1
and		
CWE 168*/169* †	Cooperative Work Experience: Computer and Information Management	2
CIM 205A	Web Development and DB: Intro SQL and MySQL	3

CIM 205B*	Web Development and DB: LAMP (Linux/Apache/MySQL/PHP)	3
CIM 225	Web Development: PHP	3
CIM 229A*/B*	Business Graphics—Beginning/Advanced	1.5, 1.5
CIM 260A*	Microsoft ASP: NET—Beginning	3
CIM 264C*	Web Animation: Flash and ActionScript—Beginning	3
CIM 264D*	Web Animation: Advanced Flash Sites and ActionScript Hacks	1.5
CIM 269A*	Web Development: JavaScript—Beginning	1.5
CIM 269B*	Web Development: Advanced JavaScript/CSS/XML/DOM	3
CIM 272A*	Web 2.0 Design: Cascading Style Sheets—Beginning	1.5
CIM 272B*	Web Design and Web Development Overview—Intermediate	1.5
CIM 274B*	Web Digital Imagery: Photoshop—Advanced	1.5
CIM 277*	E-Commerce and Web Site Design	3
CIM 281	Web Development: Macromedia Fireworks	3
CIM 289	Special Topics	1.5-3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description

†Must be taken concurrently

#Final course to be taken

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Webmaster Certificate Program

The Webmaster Certificate program prepares the student to build and administer a website and set up and maintain its web server. Students learn the technical aspect of server-level concerns of web construction and management to efficiently run websites in business and government organizations or for individuals. Topics include networking, security, web development, and database administration.

Course ID	Title	Units
CIM 7A*	Business Programming: Java—Beginning	3
CIM 172*	Computer Operating Systems: Unix/Linux	3
CIM 251*	Introduction to Networking	3
CIM 252*	Networking Essentials and Technologies	3
CIM 260A*	Microsoft ASP.NET—Beginning	3
CIM 271A*	Web Development: XHTML—Beginning	1.5
CIM 272A*	Web 2.0 Design: Cascading Style Sheets—Beginning	1.5
CIM 277*	E-Commerce and Web Site Design	1.5
CIM 298*†	Web Design: Capstone Portfolio Project	1.5
	Select from Restricted Electives	3
	Total	24

Restricted Electives:

BUS 195*†	Internship	1
and		
CWE 168*/169*†	Cooperative Work Experience: Computer and Information Management	1
CIM 7B*	Business Programming: Java—Advanced	3
CIM 205A	Web Development and DB: Intro SQL and MySQL	3

CIM 205B*	Web Development and DB: LAMP (Linux/Apache/MySQL/PHP)	3
CIM 256*	Fundamental Unix/Linux System Administration	3
CIM 257*	Network and Security Administration using Unix/Linux	3
CIM 258*	Advanced Network and Security Administration using Unix/Linux	3
CIM 260B*	Microsoft ASP.NET—Advanced	3
CIM 279*	Information Security Fundamentals	3
CIM 289	Special Topics	1.5-3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

#Final course to be taken

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Information Security: Security Occupational Skills Award

The Information Security: Security Occupational Skills Award provides the opportunity to master the necessary computer information security concepts to successfully implement various InfoSec security strategies.

Course ID	Title	Units
CIM 279*	Information Security Fundamentals	3
CIM 282	Network Defense and Countermeasures	3
CIM 283	Information Security Management	3
CIM 284	Security+	3
	Total	12

Computer Maintenance Technology Certificate Program

The Computer Maintenance Technology Certificate program prepares the student for entry-level employment as a computer technologist or computer technician in companies involved in the manufacture, installation, repair, maintenance, upgrading, or sales of personal computers and hardware for personal computers and computer networks.

Course ID	Title	Units
CIM 1	Introduction to Computer Information Systems	3
CIM 171*	Computer Operating Systems: DOS Command Line—Windows	3
CIM 174+	Computer Operating Systems: Windows	3
CMT 215	Electronics for Computer Technologists	3
or		
ET 101	Survey of Electronics	3
CMT 220*	Computer Maintenance and Repair I	3
CMT 225*	Computer Maintenance and Repair II	3
CMT 230*	Applied Network Technology	3
CMT 235*	A+ Exam Preparation for Computer Service Technicians	3
	Total	24

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

+Completion of the A and B versions of this course can also be used to fulfill this requirement.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: CIM 216A, 227, 251, 252; ET 11

Computer Science Associate Degree Program

The curriculum in the Computer Science Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate in Science degree:

Course ID	Title	Units
CS 1A	Introduction to Computer Science	3
CS 1B*	Introduction to Programming	3
CS 1C*	Advanced Programming	3
CS 2B*	Data Structures	3
CS 3A*	Computer Organization and Machine Language	3
CS 3B*	Computer Organization and Assembly Language	3
MATH 3A*	Analytic Geometry and Calculus	5
MATH 3B*	Analytic Geometry and Calculus	5
	Select from Restricted Electives	3-4
Total		31-32

Restricted Electives:

CS 4A*	Introduction to Java for Computer Science	3
CS 4B*	Advanced Topics in Java for Computer Science	3
ET 114*	Digital Electronic Circuits	4

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of all courses listed above and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: MATH 3C, 24, 26.

Construction Inspection Certificate Program

This program is designed to provide technical and theoretical knowledge of construction and secure employment as in-house, agency, city, county, or state building safety inspector.

Course ID	Title	Units
ARCH 161	Blueprint Plans and Specification Reading	4
ARCH 163	Uniform Building Code Inspection	4
ARCH 164*	Combination Residential Dwelling Inspection	3
ARCH 165	Electrical Code Inspection	3
ARCH 211	Concrete Inspection	3
ARCH 212	Plumbing Codes—Drains, Waste, Vents, Water, and Gas	3
ARCH 213	Mechanical Codes—Heating, Air Conditioning, Refrigeration, and Ductwork	3
Total		23

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: MATH 351.

Consumer Services Certificate Program

The Consumer Services program prepares students for a wide variety of employment opportunities that link the consumer, business, and government and improve communication among all three groups. This includes acting in a responsible manner to consumer problems and trends and providing information so that the consumer can use the products and services of a company correctly and with maximum benefits.

This program offers coursework for professional improvement and retraining as well as core courses to be utilized as transfer courses for students pursuing a Bachelor's degree in programs involving Family and Consumer Sciences/Home Economics, Business/Credit Counseling, or Consumer Affairs.

Course ID	Title	Units
BUS 125	Human Relations in Business	3
BUS 160	Introduction to Small Business Management	3
CIM 112	Microsoft Office	3
FCS 115	Consumer Issues	3
FCS 142	Life Management	3
or		
FCS 142A, B, C	Life Management	1,1,1
CWE 168*/169*	Cooperative Work Experience: Consumer Services	2

Select one Specialty Area		6-7
Total		23-24
Specialty Area 1—Foods and Nutrition:		
FN 50	Fundamentals of Nutrition	3
FN 110	Food Preparation Essentials	3
Specialty Area 2—Interior Design:		
ID 110	Fundamentals of Interior Design	3
ID 116	Interior Materials and Products	4
Specialty Area 3—Fashion:		
FASH 31/BUS 31	Textiles	3
FASH 150	Fashion Apparel and Professional Techniques	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 12; 103, 104, 135, 137; FN 64, 160, 171, 252;

Cosmetology Certificate Program

The following program is designed to prepare students for the State Board of Cosmetology examination and with successful completion of the program, students should be able to enter careers as cosmetologists. This program is offered on an open enrollment basis, and a waiting list may be maintained for those students who desire to enroll. Interested students should contact the Technology and Applied Science Division office.

This program has a minimum requirement of 1600 hours with 400 hours required for each course.

Course ID	Title	Units
COS 400A	Comprehensive Cosmetology I (400 hours)	12
COS 400B*	Comprehensive Cosmetology II (400 hours)	12
COS 400C*	Comprehensive Cosmetology III (400 hours)	12
COS 400D*	Comprehensive Cosmetology IV (400 hours)	12
Total (1,600 hours)		48

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

The Cosmetology Certificate Program is a nondegree-granting program; the courses in this program may not be used to satisfy Associate degree major elective unit requirements.

Cosmetician Occupational Skills Award

The Cosmetician Occupational Skills Award is designed to prepare the student for licensure as a Cosmetician/Esthetician. The student will be able to administer skin care to clients at salons, spas, dermatology offices, private clinics, and stores specializing in skin care products.

Course ID	Title	Units
COS 440	Cosmetician	16
Total		16

Manicuring Occupational Skills Award

The Manicuring Occupational Skills Award is designed to prepare the student for licensure as a Manicurist. The student will be able to administer nail care to clients at salons, spas, private clinics, and stores specializing in nail care products.

Course ID	Title	Units
COS 420	Manicuring	11
Total		11

Cross-Cultural Studies Associate Degree Program

The curriculum in the Cross-Cultural Studies Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

The Cross-Cultural Studies program is interdisciplinary in scope and will begin with a focus on the history, literature, and cultures of African Americans, Asian Americans, Chicanas(os)/Latinas(os), Middle Eastern Americans, and Native Americans. Courses also explore the relations of these cultures to each other and their relations to the dominant American culture in order to foster understanding about such topics as ethnicity, race, gender, sexuality/sexual orientation, class, and religion. Other groups which have been isolated in a similar manner from the dominant culture in the United States may be included in the Cross-Cultural Studies Program.

Select a minimum of 21 units from the following list of required Cross-Cultural Studies classes. Many of these courses also fulfill general education course requirements.

Core Requirements

(Both courses are required for a major)

Course ID	Title	Units
CCS 1	Multicultural Experiences in the United States	3
CCS 2	Multicultural Identities in the United States	3

Breadth Requirements

Social and Behavioral Sciences	6
Humanities/Arts Perspective	6
Restricted Electives	3
Total	21

Social and Behavioral Sciences

Select six units from the following courses:

Course ID	Title	Units
ANTH 4	Native American Indian Culture	3
ANTH 7	Indians of Southern California	3
ANTH 21	Women and Culture: Cross-Cultural Perspectives	3
CCS 10	Margins and Border Crossings	3
HIST 21	Women in United States History; A Multicultural Perspective	3
HIST 33	The Political/Social History of the Chicanas(os)	3
HIST 81	African American History	3
SOC 4	Introduction to Chicana(o) /Latina(o) Studies in Contemporary Society	3
SOC 5*	Introduction to African American Culture	3
SOC 6	Introduction to Asian Cultures in the United States	3
SOC 20/HIST 20	Ethnic Cultures of the United States	3

Humanities/Arts Perspective

Select six units from the following courses:

Course ID	Title	Units
ENG 23A*	American Ethnic Writing: African American Literature	3
ENG 24*	Ethnic Voices in Literature: The American Experience	3
MUS 27	History of Jazz	3
TA 110	Chicana(o)/Latina(o) Theatre	3

Restricted Electives

Select one course from the following:

ART 22, 23, 24, 29, CHI 21*, DANC 64, HIST 27, 28, 70, 72, 74, 75, 80, JA 21*, KOR 21*, MUS 23, PHIL 10*, PSYC 16*, SPAN 21A*, 21B*

*Course has a prerequisite, corequisite, limitation, or recommendation preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: FASH 144; KNES 28; 29.

Culinary Arts

(ALSO SEE FOODS)

The Culinary Arts courses are designed to train students for careers in catering, chef training, and restaurant operations, as well as for promotion of foods, equipment, and products. The program offers coursework for professional improvement, and some courses can be utilized as transfer courses for students pursuing a bachelor's degree in Family and Consumer Sciences/Home Economics with a Foods emphasis.

Catering Certificate Program

The Catering program is designed to prepare students for a wide variety of employment opportunities within catering operations as well as for developing and owning their own catering business.

Course ID	Title	Units
BUS 160	Small Business Management	3
FN 50	Fundamentals of Nutrition	3
FN 110†	Food Preparation Essentials	3
FN 120	Contemporary Meals	3
FN 142†	Classical Cuisine	2
FN 171	Sanitation and Safety	2
FN 172	Catering	2
FN 173	Catering and Banquets	2
CWE 168*/169*†	Cooperative Work Experience: Foods and Nutrition	2
	Select from Restricted Electives	4
Total		26

Restricted Electives:

FN 140	Cultural Foods	2
FN 189/289	Special Topics: Foods and Nutrition	1
FN 220	Country French Foods	2
FN 221	French Cuisine	2
FN 222	Chinese Foods	2
FN 223	Asian Foods	2
FN 226	Mexican Foods	2
FN 227	Mediterranean Foods	2
FN 228	Italian Foods	2
FN 230	Vegetarian Foods	2

FN 232	Lite Cuisine Strategies	2
FN 236	American Regional Foods	2
FN 245*	Specialty and Savory Baking	2
FN 275	Food and Beverage Operations	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†FN 110 and 142 recommended prior to CWE 168*/169* .

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 201, 202; FCS 115, 142; FN 64, 160, 162.

Culinary Arts Certificate Program

The Culinary Arts program prepares students for many contemporary employment opportunities within the restaurant and hospitality industries..

Course ID	Title	Units
FN 50	Fundamentals of Nutrition	3
FN 110†	Food Preparation Essentials	3
FN 142†	Classical Cuisine	2
FN 171	Sanitation and Safety	2
FN 172	Catering	2
FN 240	Introduction to Culinary Arts	2
FN 242	Breakfasts, Lunches, and Garde-Manger	1
FN 244	Baking Basics	2
CWE 168*/169†	Cooperative Work Experience: Food and Nutrition	2
	Select two Specialty Courses	2-6
Total		21-25

Specialty Courses:

FN 120	Contemporary Meals	3
FN 140	Cultural Foods	2
FN 189/289	Special Topics: Foods and Nutrition	1
FN 220	Country French Foods	2
FN 221	French Cuisine	2
FN 222	Chinese Foods	2
FN 223	Asian Foods	2
FN 226	Mexican Foods	2
FN 227	Mediterranean Foods	2
FN 228	Italian Foods	2
FN 230	Vegetarian Foods	2
FN 232	Lite Cuisine Strategies	2
FN 236	American Regional Foods	2
FN 275	Food and Beverage Operations	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†FN 110 and 142 recommended prior to CWE 168*/169* .

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 104*, 135, 136, 160; FN 64, 160; FCS 115, 134, 142.

Food Service Certificate Program

The Food Service program prepares students for many contemporary employment opportunities. These include Chef, Cook, Specialty and Ethnic Restaurant Operations, Food and Beverage Service, Fast Foods Operations, and Food Service in schools and day-care centers for the young and elderly.

Course ID	Title	Units
BUS 125	Human Relations in Business	3
FN 50	Fundamentals of Nutrition	3
FN 110	Food Preparation Essentials	3
FN 120	Contemporary Meals	3
FN 171	Sanitation and Safety	2
FN 240	Introduction to Culinary Arts	2
	Select from Restricted Electives	4
Total		21

Restricted Electives:

FN 220	Country French Foods	2
FN 222	Chinese Foods	2
FN 226	Mexican Foods	2
FN 227	Mediterranean Foods	2
FN 230	Vegetarian Foods	2
FN 236	American Regional Foods	2

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 104*, 135, 136, 160; FCS 115, 142; FN 64, 140, 142, 160.

Dance Associate Degree Program

The curriculum in the Dance Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

The following course of study must be completed to fulfill major requirements for the Associate Degree in Dance:

Course ID	Title	Units
DANC 9*	Choreography	3
DANC 10	Dance Production	2
<i>or</i>		
DANC 11	Dance Rehearsal and Performance	1-1.5
DANC 52*	Ballet Dancing Level I	1-1.5
DANC 53*	Intermediate Ballet	1-1.5
DANC 55*	Modern Dance Level I	1-1.5
DANC 56*	Intermediate Modern Dance	1-1.5
DANC 58*	Jazz Dancing Level I	1-1.5
DANC 64	History of Dance	3
	Select from Restricted Electives	5.5-8
Total		21

Restricted Electives:

DANC 51, 54, 57, 59, 60, 61, 62, 63, 65, 66, TA 42

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Completion of the required courses in the major and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

Drafting Technology Certificate Program

The Drafting Technology program includes courses designed to provide a general background and specialized skills to help the student find employment in government and private enterprise, especially where drafting skills are required.

Course ID	Title	Units
DR 23*	Engineering Graphics and Descriptive Geometry	3
<i>or</i>		
DR 100	Fundamentals of Mechanical Drafting	3
DR 50*/ARCH 50*	Introduction to Computer-Aided Drafting	3
DR 51*/ARCH 51*	Computer-Aided Drafting	3
DR 101*	Mechanical Drafting	3
DR 102*	Mechanical Drafting and Design	3
DR 120*	Fundamentals of Technical Illustration	2
DR 152*/ARCH 152*	Advanced Computer-Aided Drafting	3
ET 101	Survey of Electronics	3
Total		23

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Students who have completed one year of high school mechanical drafting, or equivalent, are exempt from taking DR 100.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ARCH 124A; CIM 1A; CS 1A; GEOL 23/ENV 23; MATH 124*, 251, 253, 255; PHYS 20.

Ecological Restoration Certificate Program

The certificate in Ecological Restoration trains students for a practical ecological application of appropriate techniques for a variety of ecological restoration projects. The projects may be carried out by industry or government agencies and may have specific legal requirements for implementation and proof of success. Students completing the certificate may be hired by local, county, state, or federal government; private consulting firms; or subcontractors hired by any of these agencies.

Course ID	Title	Units
ECOL 201	Ecological Restoration Techniques	4
ECOL 202	Advanced Ecological Restoration Techniques	4
ENV 1	Introduction to Environmental Studies	3
ENV 18	Introduction to Ecology	4
	Select from Restricted Electives	13
Total		28

Restricted Electives:

ENV 24	Natural History of California	3
ENV 105*	Environmental. Studies Internship	2
<i>and</i>		
CWE 168*/169*	Cooperative Work Experience: Ecological Restoration	1
ENV 123/HORT 123	Water and Soil Conservation	3
ENV 189	Special Topics	.5-4
HORT 29	Ornamental Native Plants	3
HORT 113	Soils and Fertilizers	3
HORT 116	Irrigation Systems	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

RECOMMENDED ELECTIVES: DR 50*/ARCH 50; ENV 106; GIS 110*/GEOG 110*; GEOL 23/ENV 23.

Economics Associate Degree Program

The curriculum in the Economics Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
CIM 1	Introduction to Computer Information Systems	3
<i>or</i>		
CS 1A	Introduction to Computer Science	3
ECON 2	Principles (Macro)	3
ECON 4*	Principles (Micro)	3
MATH 3A*	Analytic Geometry and Calculus	5
<i>or</i>		
MATH 11*	A Brief Course in Calculus	5
MATH 3B*	Analytical Geometry and Calculus	5
<i>or</i>		
MATH 10*	Introduction to Statistics	3
	Select from Restricted Electives	3-5
Total		20-24

Restricted Electives:

ACCT 1A; BUS 1, 104; ECON 6/ENV 6*; HIST 7, 8; MATH 2*, 3A*, 11*; PS 11/ECON 11

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

Electronic Technology

The Electronic Technology program serves three main purposes: (1) to provide certificate programs to prepare the student for a multitude of careers as an electronic technician, (2) to provide electronics skill upgrading or updating for improved job-related technical competency, and (3) to prepare students for transfer to university Engineering Technology or Industrial Technology programs.

The program curriculum and equipment are reviewed regularly by local electronics companies to ensure that the graduate can work effectively in the current electronics industry and adapt to new electronic products and technologies.

The three-certificate programs available are: Analog and Digital Circuit Electronic Technology, Digital Electronic Technology, and General Electronic Technology.

Analog and Digital Circuit Electronic Technology Certificate Program

This program prepares the student for entry-level employment as an Electronic Technician in companies involved in the manufacture, testing, troubleshooting, and repair of analog and digital circuit hardware. Courses cover a wide variety of discrete and integrated circuits with many functions, technologies, physical implementations, frequency bands, and complexities to provide maximum flexibility for employment within the electronics industry.

Course ID	Title	Units
ET 114*	Digital Electronic Circuits	4
ET 118*	Electronic Communication Systems	4

ET 133	D.C. and A.C. Fundamentals	4
ET 135*	Semiconductor Devices and Circuits	4
ET 200*	Digital Signal Processing and Microcontrollers	4
Total		20

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: Any Electronic Technology course not taken in certificate program; CS 1A, 1B; CMT 220*, 225; MATH 8*, 124*, 251*, 253*, 255*; PHYS 2A*, 20.

Digital Electronic Technology Certificate Program

This program prepares the student for entry-level employment as an Electronic Technician in companies involved in the manufacture, testing, installation, and repair of digital computers and related equipment. This certificate covers an introduction to computer/microcomputer software and repair.

Course ID	Title	Units
CMT 220*	Computer Maintenance and Repair I	3
CMT 225*	Computer Maintenance and Repair II	3
ET 114*	Digital Electronic Circuits	4
ET 133	D.C. and A.C. Fundamentals	4
ET 135*	Semiconductor Devices and Circuits	4
ET 200*	Digital Signal Processing and Microcontrollers	4
Total		22

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: Any Electronic Technology course not taken in certificate; CMT 230*; CS 1B*, 3A, 3B; MATH 8*, 124*, 251*, 253*, 255*; PHYS 2A*, 20.

General Electronic Technology Certificate Program

This program provides the student an education in the fundamentals of electronics and maximum flexibility to take elective courses of personal interest and complete a certificate in the shortest period of time. This program prepares the student for entry-level employment as an Electronic Technician at many companies.

Course ID	Title	Units
ET 114*	Digital Electronic Circuits	4
ET 133	D.C. and A.C. Fundamentals	4
ET 135*	Semiconductor Devices and Circuits	4
ET 200*	Digital Signal Processing and Microcontrollers	4
	Select from Restricted Electives	2-4
Total		18-20

Restricted Electives:

ET 118*	Electronic Communication Systems	4
ET 189/289	Special Topics	2-4

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: Any Electronic Technology course not taken in certificate; CIM 1, CMT 220*, 225; MATH 8, 124, 251, 253, 255; PHYS 2A*, 20.

Emergency Medical Technician Occupational Skills Award

The Emergency Medical Technology curriculum is designed to prepare the student for licensure as an EMT-1. The course prepares the student to care for the sick and injured in the hospital, at the scene of an emergency, and/or during transport.

Course ID	Title	Units
EMT 205*	Emergency Medical Technician Procedures	6.5
Total		6.5

Engineering Associate Degree Program

The curriculum in the Engineering Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Course ID	Title	Units
First Year		
CHEM 1A*	General Chemistry	5

CHEM 1B*	General Chemistry	5
CS 1A	Introduction to Computer Science	3
MATH 3A*	Analytic Geometry and Calculus	5
MATH 3B*	Analytic Geometry and Calculus	5
PHYS 4A*	General Physics	5
Second Year		
MATH 3C*	Analytic Geometry and Calculus	5
MATH 24*	Elementary Differential Equations	4
MATH 26*	Introduction to Linear Algebra	4
PHYS 4B*	General Physics	5
PHYS 4C*	General Physics	5
Total		51

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of all the courses listed above and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Completion of all courses in the program above, along with general education, unit and scholarship requirement, qualifies the student for the Associate in Science degree. The Associate in Arts degree is not available in the engineering program.

English as a Second Language Completion Certificate

The curriculum in the English as a Second Language Completion Certificate is designed to provide the students with the opportunity to achieve increased fluency in English while enrolled in non-credit coursework. Students who successfully complete the hours required for a certificate expand their employment and educational options.

To obtain the Certificate of Completion in ESL, the student must complete the following **required non-credit courses** at Saddleback College:

Course ID	Title	Non-credit hours per week
Two of the following		
ESL 320*	Beginning Multiskills I	6
ESL 321*	Beginning Multiskills II	6
ESL 330*	Intermediate Multiskills I	6
ESL 331*	Intermediate Multiskills II	6
ESL 340*	Advanced Multiskills	6
ESL 350*	Essential Academic Skills	6
One of the following:		
ESL 335*	Intermediate Reading and Writing I	3
ESL 336*	Intermediate Reading and Writing II	3
ESL 345*	Advanced Reading and Writing	3
ESL 346*	Advanced Writing for Work	3
One of the following:		
ESL 322*	Beginning Conversation	3
ESL 323*	Beginning Pronunciation	2
ESL 332*	Intermediate Conversation	3
ESL 333*	Intermediate Pronunciation	3

ESL 342*	Advanced Conversation	3
ESL 343*	Advanced Pronunciation	3
ESL 344*	Idioms and Expressions in American English	2
ESL 347*	Advanced Grammar Review	3
ESL 354*	Vocabulary Skills for College	3
ESL 355*	ESL Reading for College American Literature	3
ESL 357*	Grammar Review for College	3
ESL 358*	Listening and Note-Taking	3

Corequisite Labs:

ESL 888*	ESL Skills Lab	1
ESL 999*	ESL Laboratory	1

Total non-credit hours per week 17-21

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description

English Literature Associate Degree Program

The curriculum in the English Literature Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
ENG 1A*	Principles of Composition I (meets AA Writing Proficiency requirement)	3
ENG 1B*	Principles of Composition II	3
	Select from Restricted Electives	15

Restricted Electives:

ENG 15A, 15B, 17A, 17B, 18, 19, 20, 21A, 21B, 27A, 27B, 27E

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: ENG 23A*, 44, 46, 50, 52; HIST 4, 5; PHIL 1*, 12. Completion of four college semesters, or the equivalent, of a foreign language is strongly recommended.

Environmental Studies Associate Degree Program

The curriculum in the Environmental Studies Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
ENV 1	Introduction to Environmental Studies	3
ENV 18	Introduction to Ecology	4
	Select from Restricted Electives	13
Total		20

Restricted Electives:

ENV 6*/ECON 6*	Scarcity and Environment	3
ENV 19*/BIO 19*	Marine Biology	4
ENV 23/GEOL 23	Environmental Geology	4
ENV 24	Natural History of California	3
ENV 25	Environmental Hazards to Health	3
ENV 30	Alternative Energy Technologies	3
ENV 105*	Environmental Studies Internship	2
<i>and</i>		
CWE 168*/169*	Cooperative Work Experience: Environmental Studies	1
ENV 106	Natural Resource Conservation	3
ENV 120/CHEM 120	Chemistry of Everyday Life	4
ENV 123/HORT 123	Water and Soil Conservation	3
ENV 189	Special Topics	.5-4

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: ANTH 2; ARCH 12; BIO 3A*, 3B; CHEM 1A*, 1B; CIM 1; CS 1A, 1B or higher programming course; GEOG 1; GEOL 1; HORT 29; PHYS 2A*, 2B.

Family and Consumer Sciences Certificate Program

The Family and Consumer Sciences program is designed to develop those skills necessary for gainful employment in the field of Home Economics. Combined with courses such as business, journalism, television, or advertising, the Family and Consumer Sciences curriculum can also fulfill the vocational objectives of those who want to use their background in business or communications. Those wishing to transfer to a four-year college and receive a Bachelor's degree in Family and Consumer Sciences/Home Economics should refer to the transfer program in the catalog and in the catalog of the intended college of transfer.

Course ID	Title	Units
FASH 31/BUS 31	Textiles	3
FASH 110*	Contemporary Clothing Construction	3
FCS 115	Consumer Issues	3
FN 50	Fundamentals of Nutrition	3
FN 110	Food Preparation Essentials	3
ID 110	Fundamentals of Interior Design	3
ID 121*	Space Planning	3
	Select two Restricted Electives	6
	Select one Special Topics	.5-3
Total		27.5-30

Restricted Electives:

FASH 112*	Fashion Sewing—Advanced	3
FASH 141	Apparel Selection	3
FASH 144	Fashion Trends and Cultural Costumes	3
FCS 142	Life Management	3
<i>or</i>		
FCS 142 A, B, C	Life Management	1,1,1
FN 64	Nutrition Issues	3
FN 120	Contemporary Meals	3
FN 160	Nutrition, Weight Management, and Eating Disorders	3
FN 171	Sanitation and Safety	2
ID 122	History of Interior Architecture and Furnishings I	3
ID 125	History of Interior Architecture and Furnishings II	3

Special Topics:

FASH 189/289	Special Topics	.5-3
FCS 189/289	Special Topics	.5-3
FN 189/289	Special Topics	.5-3
ID 189/289	Special Topics	.5-3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: FCS 101; FASH 115, 120, 130, 140; FN 140, 142, 162, 171, 252.

Fashion Design

The Fashion Design program prepares students with the necessary skills to obtain positions in the design, apparel manufacturing, tailoring, pattern making, custom dressmaking, and related fields. Students may focus on one of the following certificate programs: Fashion Design and Advanced Fashion Design and Apparel Manufacturing. Many of the clothing courses can be utilized as transfer courses for those pursuing a Bachelor's degree in Family and Consumer Science (Home Economics) with a Clothing and Textiles emphasis. Refer also to Transfer Patterns section of this catalog or of the intended college of transfer.

Fashion Design Certificate Program

This Fashion Design program prepares the student for entry-level positions in the field of Fashion Design. They will be able to design clothing using the three major design procedures: flat pattern-making, draping on a dress form, and designing by sketching.

Course ID	Title	Units
FASH 31/BUS 31	Textiles	3
FASH 101	Introduction to Fashion Careers	3
FASH 111*	Fashion Sewing—Intermediate	3
FASH 112*	Fashion Sewing—Advanced	3
or		
FASH 124*	Wearable Art	3
FASH 130*	Flat Pattern Design	4
FASH 132*	Draping Fashion Designs	3
FASH 141	Apparel Selection	3
FASH 144	Fashion Trends and Cultural Costumes	3
FASH 145*/BUS 145*	Internship	1
or		
FASH 160*†	Fashion Fieldwork	2
and		
CWE 168*/169*†	Cooperative Work Experience: Fashion	1
FASH 150	Fashion Apparel and Professional Techniques	3
FASH 154	Fashion Illustration	3
FASH 189/289	Special Topics: Fashion	.5-3
or		
FASH 254	Fashion in Southern California	1
FASH 260*	Computer Applications in Fashion	2
or		
GD 149*	Digital Illustration	3
Total		35.5-40

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Recommended to be taken in last semester of program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 114, 215; BUS 136, 138, 160; FCS 115; FASH 120, 147, 209, 221, 230, 235, 236; TA 42.

Advanced Fashion Design and Apparel Manufacturing Certificate Program

The Advanced Fashion Design and Apparel Manufacturing certificate prepares the Fashion design student to enter the apparel manufacturing field. It explores the fashion industry, studying the many career options available beyond design. It then goes deeply into pattern and clothing manufacturing. The student who completes the Fashion Design program and then completes this advanced program will not only be able to design clothing but will be able to participate in many of the manufacturing processes.

Course ID	Title	Units
FASH 31/BUS 31	Textiles	3
FASH 101	Introduction to Fashion Careers	3
FASH 111*	Fashion Sewing—Intermediate	3
FASH 112*	Fashion Sewing—Advanced	3
FASH 113*	Couture Sewing	2
FASH 124*	Wearable Art	3
or		
FASH 240	Dye Processes on Fabrics	3
FASH 130*	Flat Pattern Design	4
FASH 132*	Draping Fashion Designs	3
FASH 136*	Apparel Design	3
FASH 141	Apparel Selection	3
FASH 144	Fashion Trends and Cultural Costumes	3
FASH 145*/BUS 145*	Internship	1
or		
FASH 160*†	Fashion Fieldwork	2
and		
CWE 168*/169*†	Cooperative Work Experience: Fashion	1
FASH 150	Fashion Apparel and Professional Techniques	3
FASH 154	Fashion Illustration	3
FASH 189/289	Special Topics: Fashion	.5-3
or		
FASH 254	Fashion in Southern California	1
FASH 234*	Advanced Pattern and Design Techniques	2
or		
FASH 238*	Advanced Draping and Fashion Design	2
FASH 235*	Designing for the Fashion Industry	2
FASH 260*	Computer Applications in Fashion	2
or		
GD 149*	Digital Illustration	3
Total		47.5-52

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Recommended to be taken in last semester of program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 114, 215; ART 42; CIM 1A; FASH 120, 143, 147, 209, 221; GC 101, TA 42.

Fashion Merchandising

The Fashion Merchandising program is designed to prepare professionally-trained individuals for the fashion industry. The program places emphasis on developing the fashion sense and the unique creativity of each student. The curriculum offers a comprehensive analysis of such subject areas as the manufacture, distribution, buying, and merchandising of fashion apparel.

The Fashion Merchandising program includes two certificates: Fashion Merchandising and Visual Fashion Merchandising.

Fashion Merchandising Certificate Program

The Fashion Merchandising certificate emphasizes all aspects of fashion merchandising including techniques of buying and selling, distributing and marketing, and promoting fashion goods. It combines a general merchandising background with training in specialized skills in order for students to find employment in today's fashion industry.

Course ID	Title	Units
FASH 31/BUS 31	Textiles	3
FASH 101	Introduction to Fashion Careers	3
FASH 143/BUS 143	Fashion Buying and Merchandising	
FASH 140	Fashion Image	3
<i>or</i>		
FASH 141	Apparel Selection	3
FASH 144	Fashion Trends and Cultural Costumes	3
FASH 147/BUS 147	Special Events Coordination and Promotion	3
FASH 148/BUS 148	Visual Merchandising	3
FASH 150	Fashion Apparel and Professional Techniques	3
FASH 154	Fashion Illustration	3
	Select one course from each Group	10.5-15
	Total	34-39
Group 1		
BUS 136	Principles of Retailing	3
BUS 137	Professional Selling Fundamentals	3
BUS 160	Small Business Management	3
Group 2		
FASH 260*	Computer Applications in Fashion	2
GD 147	Introduction to Computer Graphics	3
GD 149*	Digital Illustration	3
Group 3		
FASH 100	Basic Sewing	3
FASH 110*	Contemporary Clothing Construction	3
Group 4		
FASH 189/289	Special Topics: Fashion	.5-3
FASH 254	Fashion in Southern California	1
Group 5		
FASH 145*/BUS 145*	Internship	1
<i>or</i>		
FASH 160*†	Fashion Fieldwork	2
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Fashion	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Recommended to be taken with Cooperative Work Experience in last semester of program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 114; BUS 12A; BUS 103, 125, 136, 137, 138; FCS 115; FASH 145*/BUS 145, 154, 254; GC 101.

Visual Fashion Merchandising Certificate Program

The Visual Fashion Merchandising program explores interior and exterior displays with an emphasis on presentation of the products and on lighting and window design. Techniques and utilization of specialized materials in a diverse range of retail options are examined, as are the development of major presentations and overall store design.

Course ID	Title	Units
FASH 31/BUS 31	Textiles	3
FASH 101	Introduction to Fashion Careers	3
FASH 143/BUS 143	Fashion Buying and Merchandising	3
FASH 144	Fashion Trends	3
FASH 147/BUS 147	Special Events Coordination and Promotion	3
FASH 148/BUS 148	Visual Merchandising	3
FASH 154	Fashion Illustration	3
CWE 168*/169*†	Cooperative Work Experience: Fashion	1
	Select one course from each Group	8-10
	Total	30-32
Group 1		
ART 42	Color Theory and Practice	3
ART 100	Art Gallery/Display and Exhibition	3
ID 114	Applied Color and Design Theory for Interior Design	4
Group 2		
GD 144/ART 144	Typography	3
GD 147	Introduction to Computer Graphics	3
GD 149*	Digital Illustration	3
Group 3		
FASH 145*/BUS 145*	Internship	1
<i>or</i>		
FASH 160*†	Fashion Fieldwork	2
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Fashion	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Recommended to be taken in last semester of program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ART 20, 40, 41, 42, 50, 80; BUS 138/CA138; FASH 110*, 154, 160, 254; GC 101, GD 141/ART 141, 144; ID 110, 112, 121, 127, TA 44.

Fine Arts Associate Degree Program

The curriculum in the Fine Arts Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines to include FA 27 and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

Foods Certificate Program

(ALSO SEE CULINARY ARTS)

The Foods program is designed to train students for career applications in the food and hospitality industries such as with food companies, food-related businesses and industries, and restaurants. The program offers coursework for professional improvement, and some courses can be utilized as transfer courses for students pursuing a Bachelor's degree in Family and Consumer Sciences/Home Economics with a Foods emphasis.

Course ID	Title	Units
FN 50	Fundamentals of Nutrition	3
FN 110†	Food Preparation Essentials	3
FN 120	Contemporary Meals	3
FN 140	Cultural Foods	2
FN 142†	Classical Cuisine	2
FN 171	Sanitation and Safety	2
FN 189/289	Special Topics: Foods and Nutrition	1
FN 232	Lite Cuisine Strategies	2
CWE 168*/169*†	Cooperative Work Experience: Foods and Nutrition	2
	Select three Specialty Courses	6-7
	Total	26-27

Specialty Courses:

FN 220	Country French Foods	2
FN 221	French Cuisine	2
FN 222	Chinese Foods	2
FN 223	Asian Foods	2
FN 226	Mexican Foods	2
FN 227	Mediterranean Foods	2
FN 228	Italian Foods	2
FN 230	Vegetarian Foods	2
FN 236	American Regional Foods	2
FN 244	Baking Basics	2
FN 245*	Specialty and Savory Baking	2
FN 275	Food and Beverage Operations	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†FN 110 and 142 recommended prior to CWE 168*/169* .

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 104*, 135, 136, 160; FCS 115, 142; FN 64, 160, 162.

Foreign Language Associate Degree Program

The curricula in Arabic, Chinese, French, German, Italian, Japanese, Persian, and Spanish are designed to provide the student the opportunity to achieve the Associate Degree. While a baccalaureate or higher is recommended for those considering professional careers, earning the Associate Degree would demonstrate commitment to the major. Attainment of an Associate Degree may support attempts to gain entry-level employment. Sign Language courses can be applied to Saddleback College's American Sign Language Interpreting Certificate Program.

Associate Degree

Associate in Arts Degree

Complete at least 23 units as follows: 20 units in one language including Arabic, Chinese, French, German, Italian, Japanese, Persian, or Spanish (courses numbered 1, 2, 3, 4) and 3 units from any other language course including culture or conversation courses (courses numbered 10 or 21) , and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

General Studies Associate Degree Program

The General Studies major is defined as follows:

- 1) A minimum of 18 units in a single discipline or related disciplines in addition to those used to meet the Associate Degree General Education requirements for graduation; or

- 2) Completion of a minimum of 60 transferable units and certification of all requirements of the California State University General Education Certification pattern will satisfy graduation requirements at Saddleback College for an Associate in Arts Degree with a major in General Studies; or
- 3) Completion of a minimum of 60 transferable units and certification of all requirements of the Intersegmental General Education Transfer Curriculum (IGETC) will satisfy graduation requirements at Saddleback College for an Associate in Arts Degree with a major in General Studies.

GEOG 2	Cultural Geography	3
GEOG 3	World Regional Geography	3
GEOG 38	California Geography	3
GEOL 1	Introduction to Physical Geology	4
Total		22

Geographic Information Systems Certificate Program

The Geographic Information Systems (GIS) certificate program is a new technology that has applications in many fields. Successful completion of this program will prepare the student to use this new technology in his/her chosen area of specialization. GIS is an innovative way to organize large amounts of data by geographic area and to present the information in map (spatial) form. Many business organizations and governmental entities are requesting that their employees be trained in this field.

Course ID	Title	Units
CIM 2A	Business Programming I: Visual Basic (for Business Majors)	3
DR 50*/ARCH 50*	Introduction to Computer-Aided Drafting	3
GIS 110*/GEOG 110*	Introduction to Geographic Information Systems (GIS)	2
GIS 211*/GEOG 211*	Intermediate Geographic Information Systems (GIS)	2
GIS 212*	Advanced Geographic Information Systems	2
GEOG 1	Physical Geography	3
GEOG 1L*	Physical Geography Lab (Taken within one year of GEOG 1)	1
	Select from Restricted Electives	3-4
Total		19-20

Restricted Electives:

ANTH 2	Cultural Anthropology	3
ANTH 9	Introduction to Archaeology	3
BUS 135	Introduction to Marketing	3
ENV 18	Introduction to Ecology	4
ENV 23/GEOL 23	Environmental Geology	4
GEOG 2	Cultural Geography	3
GEOG 3	World Regional Geography	3
GEOG 38	California Geography	3
GEOL 1	Introduction to Physical Geology	4
GEOL 3	Geology of California	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Geography Associate Degree Program

The curriculum in the Geography Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
ANTH 1	Biological Anthropology	3
ANTH 2	Cultural Anthropology	3
GEOG 1	Physical Geography	3

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: HIST 4, 5, 32; PS 11/ECON 11, PS 14.

Geology Associate Degree Program

The curriculum in the Geology Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate in Science degree:

Course ID	Title	Units
First Year—Fall Semester		
CHEM 1A*	General Chemistry	5
GEOL 1	Introduction to Physical Geology	4
<i>or</i>		
GEOL 20	Introduction to Earth Science	4
MATH 2*	Pre-Calculus (required of students unprepared for MATH 3A*)	(5)
Spring Semester		
CHEM 1B*	General Chemistry	5
GEOL 2*	Historical Geology	4
MATH 3A*	Analytic Geometry and Calculus	5
Second Year—Fall Semester		
BIO 3A*	General Biology I	5
MATH 3B*	Analytic Geometry and Calculus	5
PHYS 2A*	Introduction to Physics	5
<i>or</i>		
PHYS 4A*	General Physics	5
Spring Semester		
GEOL 6*	Principles of Mineralogy	4
PHYS 2B*	Introduction to Physics	5
<i>or</i>		
PHYS 4B*	General Physics	5
Total		47-52

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of all the courses listed above and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: GEOL 3, 4, 5, 7, 10, 23; DR 100 (if mechanical drafting not taken in high school).

Gerontology Certificate Program

The Gerontology Certificate program is comprehensive in scope. It is designed to meet the needs of career-oriented students who wish career preparation at the Certificate/Associate-degree level.

Course ID	Title	Units
GERO 101	Fundamentals of Aging	1.5
GERO 110	Psychology of Aging	1.5
GERO 115	Sociology of Aging	1.5
GERO 120	Physiology of Aging	1.5
GERO 145	Activity Leadership	3
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3
HS 120	Human Development in the Social Environment	3
HS 140	Applied Group Leadership and Group Process	3
or		
HS 174	Intervention and Referral Techniques	3
HS 150*	Field Instruction and Seminar II	3
HSC 222	Basic Life Support/CPR for Health Care Providers	.75
Total		24.75

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Graphics

The Graphics program is designed to prepare students for certificates in the Computer Graphics, Graphic Communications, Graphic Design, and Illustration fields. Training is provided in both theory and practical skills. Directed skill development is stressed in the following areas of study: Computer Graphics (computer art and layout), Graphic Communications (printing), Graphic Design (design and art production), and Illustration/Animation (advertising and editorial art).

This program will provide students with the opportunity to acquire knowledge and skills that are required for employment, Associate degree, or transfer in the related areas of design, illustration, printing, and computer graphics.

Computer Graphics Certificate Program

This program is designed to prepare students for employment in computer graphics fields. Training is provided in both theory and practical skills. This program relies on the student's basic understanding of Graphic Design and/or Graphic Communications principles as they relate to industry standards. Students are encouraged to adhere to electives noted for a rounded educational experience. Some of the careers that are found within the computer graphics field are: Computer Graphics Artist, Desktop Publisher, Pre-Press Technician, Computer Animator, and Multimedia Producer.

Course ID	Title	Units
GD 144/ART 144	Typography	3
GD 147	Introduction to Computer Graphics	3
GD 148*	Digital Graphic Design	3
GD 149*	Digital Illustration	3
GD 150*	Digital Animation	3
GD 151	Digital Layout and Design	3
GD 154*	Digital Pre-Press	3
Total		21

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: GC 101, ART 140/GD 140, 141, 145, 163.

Graphic Communications Certificate Program

This program prepares students for careers typically found in the graphic communications field, such as Printshop Manager, Press Operator, Silkscreen Production Technician, Camera Operator, Dark-room Technician, Color Separator, Camera Stripper, and Computer Pre-Press/Desktop Publisher.

Course ID	Title	Units
GC 63/ART 63	Introduction to Screen Printing	3
GC 195*	Graphics Studio	3
GC 101	Introduction to Graphic Communications	3

GD 144/ART 144	Typography	3
GD 147	Introduction to Computer Graphics	3
GD 151	Digital Layout and Design	3
GD 154*	Digital Pre-Press	3
Total		21

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: GD 140/ART 140, 141, 142, 144

Graphic Design Certificate Program

This program option prepares students for careers typically found in the graphic design field, such as Art Director, Graphic Designer, Production Artist, Illustrator, Computer Graphics Designer, Package Designer, Product Designer, Airbrush Artist, and Lettering/Calligraphy Artist.

Course ID	Title	Units
GD 140/ART 140	Beginning Graphic Design	3
GD 142/ART 142	Package Design	3
GD 145/ART 145	Graphic Illustration	3
GD 147	Introduction to Computer Graphics	3
GD 149*	Digital Illustration	3
GD 154*	Digital Pre-Press	3
GD 200	Photoshop Skills for Graphic Designers	3
GD 240/ART 240	Intermediate Graphic Design	3
CWE 168*/169*	Cooperative Work Experience: Graphics	1
Total		25

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ART 40, 41, 80, 85; GC 101.

Illustration/Animation Certificate Program

This program prepares students for careers in animation and in editorial illustration such as magazine, book illustration, medical illustration, and marine illustration or in advertising illustration such as product illustration, poster art, tee-shirt, and decal art.

Course ID	Title	Units
GD 141/ART 141	Graphic Rendering Techniques	3
GD 144/ART 144	Typography	3
GD 145/ART 145	Graphic Illustration	3
GD 147	Introduction to Computer Graphics	3
GD 149*	Digital Illustration	3
GD 150*	Digital Animation	3
GD 241	Airbrush Techniques	3
Total		21

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ART 40, 80, 85.

History Associate Degree Program

The curriculum in the History Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
HIST 4	World History to 1750	3
HIST 5	World History from 1750	3
HIST 16	History of the United States to 1876	3
HIST 17	History of United States Since 1876	3
	Select from Restricted Electives	9
Total		21

Restricted Electives:

ECON 2, 20; HIST 7, 8, 9, 10, 12, 15, 19, 20, 21, 25, 30, 32, 33, 40, 41, 61, 62, 63, 70, 71, 72, 75, 80, 135; PS 4, 11, 12, 14, 61, 75, 80; HIST 20/SOC 20

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

Horticulture Certificate Program

The Horticulture program is soundly based on horticultural technology and prepares students for careers related to production and care of plants, trees, and shrubs commonly used in landscape design, retail and wholesale nurseries, and park departments. The certificate offered within the Horticulture program is outlined below.

Course ID	Title	Units
HORT 10	Plant Materials: Herbaceous Plants	3
HORT 11	Plant Materials: Trees and Shrubs	3
HORT 112	Plant Propagation	3
HORT 113	Soils and Fertilizers	3
HORT 116	Irrigation Systems	3
	Select one course from each Group	7-11
Total		22-26
Group I:		
HORT 20	Introduction to Horticulture Science	4
HORT 115	History of Landscape Design	3
Group II:		
HORT 7	Introduction to Landscape Design	3
HORT 120	Intergrated Pest Management	4
Group III:		
CWE 168*/169*	Cooperative Work Experience: Horticulture	1
HORT 29	Ornamental Native Plants	3
HORT 160	Native Ornamental Plants/Morro Bay	1
HORT 161	Horticulture Field Studies: Grand Canyon and Adjacent Areas	1.5
HORT 162	Horticulture Field Studies: Yosemite National Park	1.5
HORT 163	Horticulture Field Studies: Sequoia National Park	1.5
HORT 164	Horticulture Field Studies: Zion National Park	1.5
HORT 165	Horticulture Field Studies: National Parks of the Southwest	2.5

†CWE 168*/169* should be taken after completing at least 9 units of the Horticulture Certificate.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 1, 120, 137; CIM 1A; HORT 208, 209; SPAN 1.

General Horticulture Occupational Skills Award

General Horticulture encourages students to master skills required to propagate and maintain healthy plants, including the use of soils and fertilizers.

Course ID	Title	Units
HORT 20	Introduction to Horticultural Science	4
HORT 112	Plant Propagation	3
HORT 113	Soils and Fertilizers	3
Total		10

Plant Identification Occupational Skills Award

Plant Identification encourages students to master skills required to identify all of the important annuals, groundcovers, vines, trees, shrubs, and native plants used in Southern California landscapes. Award holders will be able to make recommendations for the incorporation of these species into the landscape based on flower color, time of flowering, height, spread, fruit production, and known problems.

Course ID	Title	Units
HORT 10	Plant Materials—Herbaceous Plants	3
HORT 11	Plant Materials—Trees and Shrubs	3
HORT 29	Ornamental Native Plants	3
Total		9

Human Development Associate Degree Program

The curriculum in the Human Development Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
ANTH 2	Cultural Anthropology	3
BIO 20	Introduction to Biology	4
MATH 10*	Introduction to Statistics	3
PSYC 1	Introduction to Psychology	3
PSYC 7	Developmental Psychology—Childhood and Adolescence	3
SOC 1	Introduction to Sociology	3
SOC 15	Socialization of the Child	3
Total		22

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: CDES 120*, 121.

Human Services

Human Services department offers the following programs of study for people who want to work with people. The curricula are courses of study designed to meet the needs of career-oriented students who wish career preparation at the Associate degree or vocational certificate levels. They will also serve as an introduction to social work, social welfare, criminal justice, counseling, and other helping professions for students planning advanced degrees in these fields.

The Human Services department offers the seven programs listed below as well as a Gerontology certificate program.

Alcohol and Drug Studies Certificate Program

The Alcohol and Drug Studies program integrates theory and practical experience in developing skills necessary to work with the alcohol and drug abuse population, as well as with families and employers of chemically dependent persons. This program option combines the Human Services behavioral core, skills training, and experiential learning in the field work settings.

Course ID	Title	Units
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3.5
HS 120	Human Development in the Social Environment	3
HS 130	Special Population Issues	3
HS 150*	Field Instruction and Seminar II	3.5
HS 170	Alcohol and Other Drugs in our Society	3
HS 171	Substance Abuse: Intervention, Treatment, and Recovery	3
HS 172	Physiological Effects of Alcohol and Drugs	3
HS 175	Substance Abuse Education, Prevention, and Intervention	3
HS 210*	Case Administration	1
HS 285	Ethical Issues/Clients' Rights	3
	Select from Restricted Electives	6
Total		38

Restricted Electives:

HS 140	Group Leadership and Group Process	3
HS 173	Family Dynamics and Addiction	3
HS 174	Intervention and Referral Techniques	3
HS 182	Substance Abuse: Adolescent Treatment and Recovery	3
HS 186	Self Esteem Strategies in Human Services	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Corrections and Criminal Justice Certificate Program

The program in Corrections and Criminal Justice provides the student with an introduction to the Human Services behavioral core and skills with a specialized area of study in criminal justice. Students completing the program may find employment in probation, juvenile counseling settings, California Youth Authority, and half-way houses.

Course ID	Title	Units
HS 37	Introduction to Criminology	3
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3.5
HS 119	Introduction to the Criminal Justice System	3
HS 120	Human Development in the Social Environment	3
HS 128	Community-Based Corrections	3
HS 150*	Field Instruction and Seminar II	3.5
HS 170	Alcohol and Other Drugs in our Society	3
HS 187	Juvenile Violence, Gangs, and Victimization	3
	Select from Restricted Electives	3
Total		31

Restricted Electives:

HS 140	Group Leadership and Group Process	3
HS 174	Intervention and Referral Techniques	3
HS 285	Ethical Issues/Clients' Rights	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Eating Disorders Certificate Program

The Eating Disorders program is a unique and innovative program that provides students with a comprehensive background of knowledge and skills in preparing persons to work in this field.

Course ID	Title	Units
FN 50	Fundamentals of Nutrition	3
or		
FN 160	Nutrition, Weight Management, and Eating Disorders	3
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3.5
HS 120	Human Development in the Social Environment	3
HS 140	Group Leadership and Group Process	3
HS 150*	Field Instruction and Seminar II	3.5
HS 173	Family Dynamics and Addiction	3
HS 181	Introduction to Eating Disorders	3
HS 184*	Medical Aspects of Eating Disorders	3
HS 185*	Background and Treatment of Eating Disorders	3
HS 210*	Case Administration	1
HS 285	Ethical Issues/ Clients' Rights	3
Total		35

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Family Services Certificate Program

This program seeks to address a growing number of individual and family needs that are an outgrowth of changing family patterns. Parenting skills, single-parent education, methods of coping with stress and chemical abuse, effective budget management, general communication skills, etc., are just a few of the challenges and skills needed for effective family living in the 21st century. This program can meet the challenge by providing training for human services workers who will work in schools, community agencies, rehabilitation centers, and halfway houses and as support persons to law enforcement and other community agencies.

Course ID	Title	Units
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3.5
HS 120	Human Development in the Social Environment	3
HS 150*	Field Instruction and Seminar II	3.5
HS 173	Family Dynamics and Addiction	3
HS 174	Intervention and Referral Techniques	3
HS 175	Substance Abuse Education, Prevention, and Intervention	3
HS 182	Substance Abuse: Adolescent Treatment and Recovery	3
HS 191	Violence in the Family	3
HS 266	Dysfunctional Families and ACA Issues	3
Total		31

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Human Services Generalist Certificate Program

The Human Services Generalist program is designed to provide

persons with both a historical and a current perspective of the basic issues within the human services field. It will introduce students to the growing career options within the field, provide an opportunity to explore several of the program options, and generally provide the kind of information that will enable students to make informed decisions in regard to career directions.

Course ID	Title	Units
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3.5
HS 120	Human Development in the Social Environment	3
HS 130	Special Population Issues	3
HS 140	Group Leadership and Group Process	3
HS 150*	Field Instruction and Seminar II	3.5
HS 175	Substance Abuse Education, Prevention, and Intervention	3
HS 173	Family Dynamics and Addiction	3
or		
HS 266	Dysfunctional Families/ACA Issues	3
	Select from Restricted Electives	3
Total		28

Restricted Electives:

APSY 150, 160; HS 170, 171, 172, 174, 175, 180, 191; PSYC 106; SOC 1, 2, 10, 20; WS 100, 135.

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Mentor and Prevention Assistance Specialist Certificate Program

This certificate program is designed to provide the knowledge and skills for persons who desire to work as mentor coordinators, mentor volunteers, or prevention specialists. Those who complete this program may work or volunteer in K-12 schools, alternative schools, court mentor mediators, probation or other correctional facilities, and for cities or other community agencies.

Course ID	Title	Units
APSY 150	Helping Relationships	3
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3.5
HS 120	Human Development in the Social Environment	3
HS 140	Group Leadership and Group Process	3
HS 150*	Field Instruction and Seminar II	3.5
HS 161	Conflict Resolution and Mediation Training	1.5
HS 174	Intervention and Referral Techniques	3
HS 175	Substance Abuse Education, Prevention, and Intervention	3
HS 130	Special Population Issues	3
or		
HS 182	Substance Abuse: Adolescent Treatment and Recovery	3
Total		29.5

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Victim Services/Domestic Violence Certificate Program

This program introduces students to the subject of victimization and its implications within various population groups in society. The program is designed to prepare students to work in a variety of settings dealing with victims and their families.

Course ID	Title	Units
HS 100	Human Services in a Changing Society	3
HS 110*	Field Instruction and Seminar I	3.5
HS 119	Introduction to the Criminal Justice System	3
HS 120	Human Development in the Social Environment	3
or		
HS 130	Special Population Issues	3
HS 128	Community-Based Corrections	3
HS 150*	Field Instruction and Seminar II	3.5
HS 170	Alcohol and Other Drugs in our Society	3
HS 191	Violence in the Family	3
HS 285	Ethical Issues/Clients' Rights	3
	Select from Restricted Elective	3
	Total	31

Restricted Electives:

HS 173	Family Dynamics and Addiction	3
HS 174	Intervention and Referral Techniques	3
HS 266	Dysfunctional Families/ACA Issues	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Humanities Associate Degree Program

The curriculum in the Humanities Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
	Foreign Language level 3 or 4	5
HIST 4	World History to 1750	3
HIST 5	World History from 1750	3
HUM 1*	Introduction to Humanities	3
HUM 3*	The Culture of Medieval and Renaissance Europe	3
HUM 10A*	Culture, Science, and Society I	3
HUM 10B*	Culture, Science, and Society II	3
HUM 21*/IDS 1*	The Search for Meaning: Ideas of Self Across Cultures	3
HUM 22*/IDS 2*	Gods, Clocks, and Visions	3
HUM 25*/IDS 5*	Planet Earth: Contemporary Issues and Controversies	3
PHIL 1*	Introduction to Philosophy	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Interior Design

Saddleback College offers an interdisciplinary Interior Design curriculum partnership in conjunction with two other Southern California community colleges: Fullerton College and Orange Coast College. This regional program provides multi-level, accredited courses that prepare students with the competencies required to enter the Interior Design profession.

Level I - Interiors Merchandising Certificate Program

The Interiors Merchandising level provides the student with a short-term certificate program leading to employment in merchandising or sales.

Course ID	Title	Units
BUS 137	Professional Selling Fundamentals	3
ID 110	Fundamentals of Interior Design	3
ID 111*	Interior Design Studio I	2
ID 112	Beginning Drafting for Interiors	3
ID 113	Interior Design Careers	2
ID 114	Applied Color and Design Theory for Interior Design	4
ID 115*	Computer-Aided Design/Drafting for Interior Design	3
ID 116	Interior Materials and Products	4
	Total	24

Associate Degree will be awarded for Level III only.

Level II - Interior Design Assistant Certificate Program

The Interior Design Assistant level meets the standards that can lead to a minimum preparation for design certification and employment as a design assistant.

Course ID	Title	Units
Level I Courses		
ARCH 124A	Architectural Drawing I	4
ID 121*	Space Planning	3
ID 122	History of Interior Architecture and Furnishings I	3
ID 123*	Interior Design Illustration	2
ID 125	History of Interior Architecture and Furnishings II	3
ID 126*	Interior Design Studio II	2
ID 127*	Fundamentals of Lighting	3
ID 128*	Business and Professional Practice for Interior Design	3
ID 129*	Interior Design Internship	1
and		
CWE 168*/169*	Cooperative Work Experience: Interior Design	1
Total		49

Associate Degree will be awarded for Level III only.

Level III - Interior Design Professional Certificate Program

The Interior Design Professional level meets the educational standards leading to employment and certification as a professional interior designer.

Course ID	Title	Units
Level I and II Courses		
BUS 160	Small Business Management	3
ID 133*	Rendering and Rapid Visualization for Interior Design	2
ID 210*	Interior Design Studio III	2
ID 211	Codes and Specifications for Interior Design	2
ID 212*	Advanced Computer-Aided Design/Drafting for Interior Design	3
ID 213*	Interior Design Studio IV	2
Total		63

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Journalism Certificate Program

The Journalism program curriculum is designed to train persons in the range of skills necessary for work in editorial departments of newspapers, magazines, industrial in-house publications, and public relations programs in business and government.

This program provides background and experience needed by persons who may be employed as editors, staff writers, editorial and staff reporters, and photographers.

Course ID	Title	Units
JRN 1/CA 1	Mass Media and Society	3
JRN 2*	News Writing	3
JRN 104	Print Media Design	3
JRN 105	Feature Writing	3
JRN 120*†	Newspaper Publication	4-4
JRN 125*†	Magazine Journalism	3-3
Total		26

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken twice.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Students seeking a certificate in journalism are urged to undertake a broadly based program of academic study: courses in literature, philosophy, foreign language, natural sciences, social sciences, fine arts, and math.

Students intending to pursue a bachelor's degree in communications or journalism should not expect to receive credit for more than 12 units of journalism courses toward the degree. Refer to the Transfer Major Patterns section of the catalog and to the catalog of the intended college of transfer.

RECOMMENDED ELECTIVES: CIM 228A, 228B; PHOT 50, 55.

Kinesiology Associate Degree Program

The curriculum in the Kinesiology Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
HLTH 1	Contemporary Health Issues	3
or		
HLTH 3	Women's Health Issues	1.5
HLTH 2	Responding to Emergencies/First Aid and CPR	

KNES 51	Introduction to Kinesiology and Athletics	3
KNES 52	Fundamentals of Human Movement <i>and</i>	3
	A minimum of 3 units in Training and Theory selected from the following: KNES 53,54, 105 <i>and</i>	3
	A minimum of 6 units in Kinesiology activity skills courses from at least 4 of the following areas:	
	(1) Fitness	
	(2) Individual Sports	
	(3) Aquatics	
	(4) Dance,	
	(5) Team Sports	
	(6) Combative Skills	
	NOTE: Intercollegiate Athletics may be applied in appropriate areas.	6
	Total	19.5

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BIO 11*, 20; KNES 107; PSYC 1; SP 1 or 5.

Landscape Design Certificate Program

This program is designed to train students for careers in landscape design and maintenance with municipal and county parks departments, industrial and commercial firms, and residential construction companies.

<i>Course ID</i>	<i>Title</i>	<i>Units</i>
HORT 7	Introduction to Landscape Design	3
HORT 10	Plant Materials: Herbaceous Plants	3
HORT 11	Plant Materials: Trees and Shrubs	3
HORT 106	Landscape CADD	3
HORT 109	Introduction to Planting Design	3
HORT 116	Irrigation Systems	3
HORT 130	Hardscape and Construction Materials	3
	Select from Restricted Electives	1-3
	Total	22-24

Restricted Electives:

CWE 168*/169*†	Cooperative Work Experience: Horticulture	1
HORT 29	Ornamental Native Plants	3
HORT 160	Native Ornamental Plants/Morro Bay	1
HORT 161	Horticulture Field Studies: Grand Canyon and Adjacent Areas	1.5
HORT 162	Horticulture Field Studies: Yosemite National Park	1.5
HORT 163	Horticulture Field Studies: Sequoia National Park	1.5
HORT 164	Horticulture Field Studies: Zion National Park	1.5
HORT 165	Horticulture Field Studies: National Parks of the Southwest	2.5

†CWE 168/169 should be taken after completing at least 9 units of the Landscape Design Certificate Program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 215; BUS 1, 120, 137; CIM 1A; HORT 113, 115; SPAN 1.

General Landscape Design Occupational Skills Award

A comprehensive overview of the drawing, design, and construction materials used by the landscape designer. The skills acquired will enhance the ability to provide landscaping assistance to customers of retail and wholesale nurseries.

<i>Course ID</i>	<i>Title</i>	<i>Units</i>
HORT 7	Introduction Landscape Design	3
HORT 109	Planting Design	3
HORT 130	Hardscape and Construction Materials	3
	Total	9

Liberal Arts and Sciences Associate Degree

In some cases, the student's career goals and transfer program are such that there is little opportunity for specialization at the lower-division level. The student who has demonstrated breadth in the fine arts and humanities, social and behavioral sciences, and natural sciences by completion of a minimum of 18 units of transfer-level coursework in those areas, in addition to those required to fulfill general education requirements, may receive an Associate degree in liberal arts and sciences. Consult with a counselor for assistance in planning a program.

Marine Science Technology

The Marine Science Technology program is designed to provide technician training for several ocean-related careers. Two program options are outlined below to orient students to the different emphases necessary for individual interest and career goals.

Marine Science Technician Certificate Program

Rapid growth of the field of marine environmental management in Southern California brings demand for marine science technicians having the practical seamanship skills of navigation, vessel operation, marine systems and equipment maintenance, as well as scientific expertise. Flexibility in study areas of concentration allows for tailoring coursework to specific employment opportunities.

Classroom work in oceanographic disciplines is combined with seagoing laboratory experience aboard marine research vessels, both sail and power. The program is designed to develop a solid educational foundation so that graduates will be prepared to work closely with scientists, researchers, engineers, and marine survey and operations personnel as they endeavor to manage this enormous resource for the good of mankind.

Course ID	Title	Units
ENV 18	Intro to Ecology	4
or		
ENV 19*/BIO 19*	Marine Biology	4
or		
MS 4	Southern California Coastal Ecology	4
MS 20	Introduction to Oceanography	
	Select from Restricted Electives	15
	Total	23

Restricted Electives:

MST 100	Aquarium Systems	3
and		
MST 101*	Aquarium Management	1.5
MST 201	Marlinspike Seamanship	2
MST 202	Marine Weather	3
MST 205	Water Quality and Toxicity of Captive Aquatic Systems	3
MST 210	Coastal Navigation	3
MST 212	Sailing, Seamanship, and Boating Safety	3
MST 214A*	Intermediate Ocean Sailing	3
MST 214B*	Advanced Cruising Under Sail	3
MST 215*	Vessel Command and Organization	3
MST 216	USCG Master License and Examination Preparation Course	3
MST 217	Sub Sea Technology: Remotely Operated Vehicle	2
MST 218*	Electronic Aids to Navigation	3
MST 219*	Marine Ecological Survey/GIS	3
MST 289	Special Topics	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: CHEM 1A*, 106; CIM 1A; DR 100; ET 102, 104; PHYS 2A*.

Seamanship Certificate Program

This program is designed to prepare individuals as boat operators and to take Coast Guard licensing examinations, as well as train marine technicians in the seagoing disciplines. Fieldwork is conducted throughout Southern California and the Channel Islands from Dana Point and Newport harbors. Boats include 28 to 48-foot sailing and power vessels, as well as safety sail training and introductory boating experience on Saddleback's fleet of 14-foot Capri sailboats.

Course ID	Title	Units
MST 201	Marlinspike Seamanship	2
MST 202	Marine Weather	2
MST 210	Coastal Navigation	3
MST 214B*	Advanced Cruising Under Sail	3
MST 215*	Vessel Command and Organization	3
	Select from Restricted Electives	9
	Total	22

Restricted Electives:

MST 211	Celestial Navigation	3
MST 212	Sailing, Seamanship, and Boating Safety	3
MST 214A*	Intermediate Ocean Sailing	3
MST 216	USCG Master License and Examination Preparation Course	3
MST 217	Sub Sea Technology: Remotely Operated Vehicle	2
MST 218*	Electronic Aids to Navigation	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ET 101, 102; DR 100, PHYS 2A*.

Mathematics Associate Degree Program

The curriculum in the Mathematics Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Mathematics major for Associate degree:

Course ID	Title	Units
First Year		
CS 1B*	Introduction to Programming	3
or		
CS 4A*	Introduction to Java for Computer Science	5
MATH 3A*	Analytic Geometry and Calculus	
MATH 3B*	Analytic Geometry and Calculus	5
Second Year		
MATH 3C*	Analytic Geometry and Calculus	5
MATH 24*	Elementary Differential Equations	4
MATH 26*	Introduction to Linear Algebra	4
	Total	26

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree**Associate in Arts Degree**

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

Medical Assistant

This program prepares students for employment as a medical assistant in a physician's office or clinic. The curriculum is designed to provide training in administrative (front office) and clinical (back office) medical assisting skills. Instruction is given in basic medical office procedures (including appointment scheduling, billing, and insurance), assisting with examinations, surgical and laboratory procedures (including venipuncture, pharmacology, and injections), electrocardiography, public relations, supervision, and practice-building techniques. An externship experience helps provide the student with the skills necessary to enter this field.

Successful completion of courses will require that a grade of "C" or better be achieved. When a student fails to achieve a "C" or better in any course, the student will be given the opportunity to repeat the failed course once on a space available basis. If a student receives a second grade of less than a "C" in any Medical Assistant course, that student will be dropped from the Medical Assistant Program and will not be eligible for re-entry into the Saddleback College Medical Assistant program. A student may not enter Clinical Experience (MA 217) until all courses are completed with a grade of "C" or better.

Administrative Medical Assistant Certificate Program

This program prepares the student for employment as an administrative (front office) medical assistant in a physician's office or clinic. The program is designed to prepare the student to schedule appointments, perform medical reception duties, handle financial matters (including medical collection), manage the medical records, and do insurance billing. The externship in the front office of a physician's office will help provide the student with the administrative experience necessary to enter the workforce. Students are required to carry malpractice insurance while in MA 217A.

Course ID	Title	Units
HSC 222	Basic Life Support/CPR for Healthcare Providers	.75
INSR 214A	Basics in Medical Insurance	2.5
INSR 215A	CPT-4 and ICD-9-CM Medical Insurance Coding	3
MA 200	Medical Terminology	3
MA 210	Introduction to Medical or Laboratory Assisting	2
MA 211A	Medical Reception Techniques	2.5
MA 212A	Medical Office Financial Procedures	2.5
MA 213A	Medical Records Management	2.5
MA 217A*	Medical Assisting Clinical Experience Administrative	3
MA 260/HSC 260	Computer Applications for Healthcare Personnel	1.5
Total		23.25

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: HSC 240*; MA 211B, 212B, 213B, 214B, 218B.

Clinical Medical Assistant Certificate Program

This program prepares the student for employment as a clinical (back office) medical assistant in a physician's office or clinic. The program is designed to prepare the student to aid the physician by assisting with examinations and treatments, performing venipunctures and collecting other routine laboratory samples, performing routine laboratory procedures, assisting with office surgery, giving medications including by injection, performing electrocardiograms, and practicing medical and surgical asepsis. An externship in the back office of a physician's office will help provide the student with the clinical experience necessary to enter the workforce. Students are required to carry malpractice insurance while in MA 217B.

Course ID	Title	Units
HSC 222	Basic Life Support/CPR for Healthcare Providers	.75
MA 200	Medical Terminology	3
MA 210	Introduction to Medical or Laboratory Assisting	2
MA 211B	Physical Examination Procedures	3
MA 212B	Medical Office Laboratory Procedures	3
MA 213B	Medical Asepsis and Surgical Procedures	3
MA 214B	Medication Administration for Medical Assistants	3
MA 217B*	Medical Assisting Clinical Experience—Clinical	3
MA 218B	Electrocardiography for the Medical Assistant	2
MA 260/HSC 260	Computer Applications for Healthcare Personnel	1.5
Total		24.25

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: HSC 240*; INSR 214A, 215A ; MA 211A, 212A, 213A.

Medical Assistant Certificate Program

This program prepares the student for employment as a medical assistant in a physician's office or clinic. The curriculum is designed to provide training in both administrative and clinical procedures and practices. Instruction is given in basic medical office procedures, including appointment scheduling, billing, insurance, medical reception, medical records management, surgical and laboratory procedures, venipuncture, pharmacology and injections, electrocardiography, public relations, and practice-building techniques. An externship in a physician's office combining administrative and clinical experience helps provide the student with the clinical experience necessary to enter the workforce. Students are required to carry malpractice insurance while in MA 217C.

Course ID	Title	Units
HSC 222	Basic Life Support/CPR for Healthcare Providers	.75
INSR 214A	Basics in Medical Insurance	2.5
INSR 215A	CPT-4 and ICD-9-CM Medical Insurance Coding	3
MA 200	Medical Terminology	3
MA 210	Introduction to Medical or Laboratory Assisting	2
MA 211A	Medical Reception Techniques	2.5
MA 211B	Physical Examination Procedures	3
MA 212A	Medical Office Financial Procedures	2.5
MA 212B	Medical Office Laboratory Procedures	3
MA 213A	Medical Records Management	2.5
MA 213B	Medical Asepsis and Surgical Procedures	3
MA 214B	Medication Administration for Medical Assistants	3
MA 217C*	Medical Assisting Clinical Experience—Comprehensive	3
MA 218B	Electrocardiography for the Medical Assistant	2
MA 260/HSC 260	Computer Applications for Healthcare Personnel	1.5
Total		37.25

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: HSC 240*.

Medical Insurance Coding Occupational Skills Award

Completion of the occupational skills award in Medical Insurance Coding prepares the student for employment in a medical office or as an independent consultant/contractor who specializes in medical insurance billing and coding.

Course ID	Title	Units
INSR 214A	Basics in Medical Insurance	2
INSR 215A	CPT-4 and ICD-9-CM Medical Insurance	

Coding	3	
MA 260/HSC 260	Computer Applications for Healthcare Personnel	1.5
Total		6.5

Music Associate Degree Program

The curriculum in Music is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree will demonstrate commitment to the major, and attainment of a degree which can support attempts to gain entry-level employment.

The following course of study must be completed to fulfill major requirements for the Associate Degree in Music:

Course ID	Title	Units
MUS 50*	Applied Music: Instrumental	2.5, 2.5
or		
MUS 51*	Applied Music: Keyboard	2.5, 2.5
or		
MUS 52*	Applied Music: Voice	2.5, 2.5
	Select from: MUS 31*, 32*, 33*, 34*, 35*, 40*, 41*, 42*, 47*, 62*, 63, 64*, 66*, 75*, 148 or 297*	3-6
MUS 10*	Harmony I	3
MUS 11*	Harmony II	3
MUS 54	Beginning Piano (or proficiency exam)	(1)
MUS 55*	Intermediate Piano (or proficiency exam)	(1)
MUS 92*	Musicianship I	2
MUS 93*	Musicianship II	2
	Select two courses from: MUS 20, 23, 24, 25, 26, 27, 28, 29	6
Total		24-29

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Refer to Graduation Requirements for specific information regarding unit, scholarship, residence, and general education requirements.

Associate Degree

Associate in Arts Degree

Completion of the required courses in the major and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program for transfer.

Natural Sciences Associate Degree Programs

(SEE ASTRONOMY, BIOLOGY, CHEMISTRY, GEOLOGY, PHYSICAL SCIENCE, and PHYSICS)

Nursing (National League for Nursing Accredited)

PURPOSES OF THE PROGRAM IN NURSING

The purposes of this program in Nursing are to provide the education necessary to develop competent practitioners in nursing and to provide a base for the continuing development of the student as an individual.

ENROLLMENT PROCEDURES

Procedures for applying to the Nursing program and application packets are available in the Health Sciences and Human Services division office and on the division website. Prospective nursing students are encouraged to attend an RN Information Session. (See schedule of classes)

In order to apply, a student must complete BIO 11* (Anatomy), BIO 12 (Physiology), BIO 15* (Microbiology), and ENG 1A* (Principles of Composition 1) or their equivalents with a grade of "C" or better. BIO 12* (Physiology) must have been completed within the past seven years.

Students must also have a qualifying GPA of 2.5 to apply. Applications will be taken each semester. The application period for the spring semester is September 1-15, and the application period for the fall semester is March 1-15.

Students qualified for application will be ranked according to points received for prerequisite biologies and overall GPA greater than or equal to 3.0. In this ranking system grades will be weighed as follows: A = 5 points, B = 3 points, and C = 1 point. A 3.0-3.49 GPA = 1 point, 3.5-3.99 GPA = 2 points, and 4.0 GPA = 3 points.

Three-fourths of the students will be admitted from the highest ranking to the lowest ranking in the applicant pool. Ties will be decided by the number of required core nursing courses completed. One-fourth of the remaining applicants will be selected by lottery.

The Nursing Program at Saddleback College is an impacted program, therefore students who hold F-1 (student visas) will not be considered for admission to the Nursing Program.

Students may use the following resources to obtain information or to seek clarification regarding nursing issues:

California Board of Registered Nursing
400 R Street
Sacramento, CA 95814
916-322-3350
National League for Nursing Accrediting Commission
61 Broadway Street
New York, NY 10006
800-669-1656

Nursing (National League for Nursing Accredited)

Registered Nurse Certificate Program

Every required prerequisite and core class must be completed with a "C" or better.

Course ID	Title	Units
May be taken prior to Nursing Clinical Sequence:		
BIO 11*	Human Anatomy	4
BIO 12*	Human Physiology	4
BIO 15*	General Microbiology	5
ENG 1A*	Principles of Composition I	3
Total		16

Eligible for Entry into Nursing Clinical Sequence

Semester I		
GERO 101	Fundamentals of Aging	1.5
N 160*	Pharmacology	2.5
N 170*#	Nursing Process	7.75
N 171*#	Mental Health Nursing	3
Total		14.75

Semester II		
N 161	Growth and Development	1.5
N 172*#	Medical-Surgical Nursing	8.75
PSYC 1	Introduction to Psychology	3
Total		13.25

Semester III		
N 173*†#	Nursing Care of Children and Families	3.5
N 174*#	Women's Health Nursing	3.5
Total		7

Semester IV		
N 176*#	Advanced Nursing	8
SP 1	Communication Fundamentals	3
<i>or</i>		
SP 5	Interpersonal Communication	3
Total		11

Total units Registered Nursing Certificate **62**

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

#Clinical course.

Selected clinical experiences in various hospitals, clinics, and community agencies are provided throughout the Nursing Program.

Upon completion of the Registered Nurse Certificate Students are eligible for RN Licensure Exam

Associate Degree—Nursing Program

Refer to Graduation Requirements for specific information regarding unit, scholarship, residence, and general education requirements.

Licensed Vocational Nurse (LVN) to Registered Nurse (RN) Program

The Nursing program is designed to provide a system by which vocational nurses can continue their education and become eligible to write the State Board Exam. Procedures for application and admission packets are available in the offices of the Division of Health Sciences and Human Services. Students are admitted from a wait list.

Admission of LVNs to the Nursing program is on a space-available basis. To be placed on the wait list requires:

1. Proof of satisfactory completion of an accredited VN program or a current California VN license.
2. Completion of all the core science courses: BIO 11*, 12*, 15*, and ENG 1A* or equivalent, with a grade of "C" or better.
3. Completion of N 162 with a grade of "C" or better within two years of admission
4. Completion of matriculation testing.
5. Attendance at "LVN to RN" guidance session.
6. Overall GPA of 2.5 in prerequisite courses.
7. Application submitted with Director/Assistant Director of Nursing.

Consideration will be given to each applicant's prior education in determining placement into the program. All classes are challengeable. Every required prerequisite and core class must be completed with a "C" or better.

Required Prerequisites:

Course ID	Title	Units
BIO 11*	Human Anatomy	4
BIO 12*	Human Physiology	4
BIO 15*	General Microbiology	5
ENG 1A*	Principles of Composition I	3
N 162*	Successful Transition to Professional Nursing	1.5
Total		17.5

Required Core Classes:

Course ID	Title	Units
GERO 101	Fundamentals of Aging	1.5
N 171*#	Mental Health Nursing	3
N 173*#	Nursing Care of Children and Families	3.5
N 174*#	Women's Health Nursing	3.5
N 176*#	Advanced Nursing	8
PSYC 1	Introduction to Psychology	3
SP 1	Communication Fundamentals	3
<i>or</i>		
SP 5	Interpersonal Communication	3
Total		25.5

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

#Clinical course.

Licensed Vocational Nurse (LVN) to Registered Nurse (RN) 30-Unit Option

BRN Rules and Regulations

Section 1429—Preparation Required for Licensed Vocational Nurses

- (a) An applicant who is licensed in California as a vocational nurse is eligible to apply for licensure as a registered nurse if such applicant has successfully completed the courses prescribed below and meets all the other requirements set forth in Section 2736 of the code. Such applicant shall submit evidence to the board, including a transcript, of successful completion of the requirements set forth in subsection (c) and of successful completion or challenge of courses in physiology and microbiology comparable to such courses required for licensure as a registered nurse.
- (b) The school shall offer objective counseling of this option and evaluate each licensed vocational nurse applicant for admission to its registered nursing program on an individual basis. A school's determination of the prerequisite courses required of a licensed vocational nurse applicant shall be based on an analysis of each applicant's academic deficiencies, irrespective of the time such courses were taken.
- (c) The additional education required of licensed vocational nurse applicants shall not exceed a maximum of thirty (30) semester or forty-five (45) quarter units. Courses required for vocational nurse licensure do not count toward fulfillment of the additional education requirement. However, other courses comparable to those required for licensure as a registered nurse, as specified in Section 1426, may be counted toward fulfillment of the additional education requirement.

Nursing courses shall be taken in an accredited school and shall be beyond courses equivalent to the first year of professional nursing courses. The nursing content shall include nursing intervention in acute, preventive, remedial, supportive, rehabilitative, and teaching aspects of nursing. Theory and courses with concurrent clinical practice shall include advanced medical-surgical, mental health, psychiatric nursing, and geriatric nursing. The nursing content shall include the basic standards for competent performance prescribed in Section 1443.5 of these regulations.

This option is available to all LVNs entering the Saddleback College Nursing program. Persons electing this 30-unit option will be eligible to write the State board exam but will not be graduates of the Saddleback College Nursing program.

Admission of VNs to the Nursing program is on a space-available basis. To be placed on the wait list requires:

1. Proof of satisfactory completion of an accredited VN program or a current California VN license.
2. Completion of BIO 12*, BIO 15*, and N 162 with grades of "C" or better with a GPA of 2.5 or greater.
3. Attendance at "LVN to RN" guidance session.
4. N 162 must be taken within 2 years of admission.
5. Applicant must commit, in writing, to the 30-unit status prior to or during application.
6. Application submitted with the Director/Assistant Director of Nursing.

Consideration will be given to each applicant's prior education in determining placement into the program. All classes are challengeable. Every required prerequisite and core class must be completed with a "C" or better.

Courses Required for the 30-Unit Option:

Required Prerequisites:

Course ID	Title	Units
BIO 12*	Human Physiology	4
BIO 15*	General Microbiology	5
N 162*	Successful Transition to Professional Nursing	1.5

Required Core Classes:

GERO 101	Fundamentals of Aging	1.5
N 171*	Mental Health Nursing	3
N 173*#	Nursing Care of Children and Families	3.5
N 174*#	Women's Health Nursing	3.5
N 176*#¥	Advanced Nursing	8
Total		30

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

#Clinical course.

¥Fulfills the Management & Leadership and Advanced Medical-Surgical requirement.

Diploma School Registered Nursing Program

This program is designed for the RN graduate of a hospital diploma program. Completion of the program listed below and completion of the graduation requirements will qualify the student for an Associate in Science Degree in Nursing.

Upon completion of the following courses, full credit will be awarded in the area of Nursing for holders of current California Registered Nursing Licenses. A minimum of 12 units must be earned at Saddleback College.

Course ID	Title	Units
ENG 1A*†	Principles of Composition I	3
GERO 101†	Fundamentals of Aging	1
PSYC 1	Introduction to Psychology	3
SOC 1	Introduction to Sociology	3
SP 1	Communication Fundamentals	3
or		
SP 5	Interpersonal Communication	3
Total		13

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†A minimum grade of "C" is required.

Refer to Graduation Requirements for specific information regarding unit, scholarship, residence, and general education requirements.

The state universities in the area have planned curricula to dovetail with the community college programs in Orange County; therefore, it will be possible in most instances to make a smooth articulation to a baccalaureate program in Nursing.

The student will need to meet admission requirements as determined by the particular baccalaureate program he/she wishes to enter. These requirements may include courses in the natural sciences or other areas. Students should seek the necessary counseling before taking general education courses at Saddleback College as some additional courses may need to be included.

Nutrition Certificate Program

The Nutrition program prepares students for a wide variety of employment opportunities involving the applications of fundamentals of normal nutrition. Employment possibilities include: Public agencies, day-care centers for the young and the elderly, food co-ops, recreation work, pregnancy clinics, education (such as preschool and elementary school), health clubs, gym and figure salons, health food stores and nutritional supplement sales, and drug abuse clinics. The program offers coursework for professional improvement, and some courses can be utilized as transfer courses for students pursuing a Bachelor's degree. Refer to the Family and Consumer Sciences/Home Economics transfer section of the Saddleback College Catalog, as well as the catalog of the intended college of transfer.

Course ID	Title	Units
FCS 115	Consumer Issues	3
or		
FCS 142	Life Management	3
CWE 168*/169*†	Cooperative Work Experience: Foods and Nutrition	2
FN 50†	Fundamentals of Nutrition	3
FN 64	Nutrition Issues and Controversies	3
FN 110	Food Preparation Essentials	3
FN 120	Contemporary Meals	3
FN 160	Nutrition, Weight Management, and Eating Disorders	3
FN 162	Nutrition and Meal Planning for One or Two	3
FN 164	Sports Nutrition	2
or		
FN 171	Sanitation and Safety	2
FN 230	Vegetarian Foods	2
or		
FN 232	Lite Cuisine Strategies	2
Total		27

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

† Foods and Nutrition 50 recommended prior to CWE 168*/169*.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 125, 137; 134; FN 140, 171, 252; HLTH 1; KNES 107; PSYC 33, 106; SP 1.

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

† Foods and Nutrition 50 recommended prior to CWE 168*/169*.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 125, 137; 134; FN 140, 171, 252; HLTH 1; PE 107; PSYC 33, 106; SP 1.

Oceanography Associate Degree Program

The curriculum in the Oceanography Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate in Science degree:

Course ID	Title	Units
First Year		
CHEM 1A*	General Chemistry	5
CHEM 1B*	General Chemistry	5
GEOL 1	Introduction to Physical Geology	4
MATH 3A*	Analytic Geometry and Calculus	5
MS 20	Introduction to Oceanography	4
Second Year		
MATH 3B*	Analytic Geometry and Calculus	5
MATH 3C*	Analytic Geometry and Calculus	5
MATH 10*	Introduction to Statistics	3

PHYS 4A*	General Physics	5
PHYS 4B*	General Physics	5
Total		46

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of all courses listed above and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Completion of at least 20 units in the major including MS 20 and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements. Refer also to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: BIO 3A* or 20, 19; GEOL 2, 5, 6, 7, 20; PHYS 4C*.

Office & Computer Skills Occupational Skills Award

An introduction to office procedures and basic skills needed for employment in today's office environment. Areas of study include: office environment, organizational structure, computer skills, business math, filing, and records management.

Course ID	Title	Units
CIM 213A	Office Skills: Office Procedures	2.5
CIM 213B	Office Skills: Keyboarding	.5
CIM 213D	Office Skills: Windows	.5
CIM 213E	Office Skills: Word Processing (Word)	.5
CIM 213F	Office Skills: Spreadsheets (Excel)	.5
CIM 213G	Office Skills: Desktop Presentation for Business (PowerPoint)	.5
CIM 213H	Office Skills: Database (Access)	.5
CIM 213J	Office Skills: Desktop Publishing (Publisher)	.5
Total		6

Paramedic Certificate Program

The Paramedic program is designed to prepare the student for licensure as a Paramedic. It is an intense, full-time program consisting of lecture, skills lab, clinical practice, and field internship. Students must possess a current CPR-Health Care Provider Card and are also required to have a current EMT-1 certification and one-year recent work experience. Students must have or purchase malpractice insurance prior to taking PM 230.

Course ID	Title	Units
PM 220*†	Paramedicine Theory	14
PM 230*†	Paramedical Clinical Experience	7.5
PM 240*†	Paramedic Field Internship	12
Total		33.5

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†A minimum grade of "C" is required.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BIO 201; EMT 218; ENG 1A*, 200, 220; HSC 217,

Philosophy Associate Degree Program

The curriculum in the Philosophy Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Select a minimum of 12 units from the following:

PHIL 1*	Introduction to Philosophy	3
PHIL 10*	World Religions	3
PHIL 12*	Introduction to Logic	3
PHIL 15*	Introduction to Ethics	3

Select a minimum of 9 units from the following:

ENG 15A*	Survey of American Literature: 1620-1860	3
ENG 15B*	Survey of American Literature: 1860-Contemporary	3
<i>or</i>		
ENG 17A*	Survey of English Literature: Beowulf to Romantic Movement	3
ENG 17B*	Survey of English Literature: Romantic Movement to the Present	3
<i>or</i>		
ENG 21A*	World Literature: Ancient to the 17th Century	3
ENG 21B*	World Literature: 17th Century to Modern	3
HIST 4	World History to 1750	3
HIST 5	World History from 1750	3
HUM 1*	Introduction to Humanities	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: Four college semesters, or the equivalent, of a foreign language are strongly recommended. Art history, English literature, history, interdisciplinary studies courses, MATH 9, and psychology or other social sciences are also recommended.

Phlebotomist/Laboratory Assistant Occupational Skills Award

This curriculum prepares the student for employment as a Phlebotomist/Laboratory Assistant in a hospital, laboratory, or clinic. The training is designed to prepare students to collect specimens, do venipunctures, and clean and maintain medical laboratory equipment. Enrollment in CWE 168/169 (two units) will provide the necessary 120 hours of clinical experience required to complete this program. Successful completion of HSC 240 and CWE 168/169 will lead to certification as a Phlebotomist/Laboratory Assistant.

Course ID	Title	Units
HSC 240*	Phlebotomist/Laboratory Assistant Procedures	4
CWE 168*/169*	Cooperative Work Experience: Phlebotomist	2
Total		6

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Photography Associate Degree Program

The curriculum in the Photography Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
First Year		
ART 40	Two-Dimensional Design	3
PHOT 50	Introduction to Photography	3
PHOT 51*	Introduction to Photoshop and Digital Imaging	3
PHOT 55*	Intermediate Photography	3
Second Year		
PHOT 152*	Intermediate Photoshop and Digital Imaging	3
or		
PHOT 189	Special Topics: Photography	3
or		
PHOT 190	Special Problems in Photography	3
PHOT 156*	Advanced Photography	3
PHOT 160*	Color Digital Photography	3
Total		21

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ART 80, 189; JRN 1/CA 1.

Physical Education Associate Degree Program

SEE KINESIOLOGY

Physical Science—General Emphasis Associate Degree Program

The curriculum in the Physical Science Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested major areas for the Associate in Science degree:

Astronomy, Chemistry, Environmental Studies, Geography, Geology, Marine Science, Physics

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Physics Associate Degree Program

The curriculum in the Physics Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate in Science degree:

Course ID	Title	Units
First Year		
CS 1A	Introduction to Computer Science	3
MATH 3A*	Analytic Geometry and Calculus	5
MATH 3B*	Analytic Geometry and Calculus	5
PHYS 4A*	General Physics	5
Second Year		
MATH 3C*	Analytic Geometry and Calculus	5
MATH 24*	Elementary Differential Equations	4
MATH 26*	Introduction to Linear Algebra	4
PHYS 4B*	General Physics	5
PHYS 4C*	General Physics	5
Total		41

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of all the courses listed and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer also to Transfer Patterns section of this catalog or to the catalog of the intended college of transfer. Consult with a counselor or Physics instructor for assistance in planning alternative programs.

RECOMMENDED ELECTIVES: CHEM 1A*, 1B.

Political Science Associate Degree Program

The curriculum in the Political Science Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

It is recommended that PS 1 be taken prior to or concurrently with a combination of courses to be selected from those listed below.

Course ID	Title	Units
ECON 2	Principles (Macro)	3
PS 1	American Government	3
PS 4	Introduction to Political Science	3
PS 10	Introduction to Political Theory	3
PS 11/ECON 11	International Political Economy	3
PS 12	Comparative Politics and Government	3
PS 14	International Relations	3
SOC 1	Introduction to Sociology	3
Total		24

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: ECON 4*; HIST 9, 16, 17, 21; MATH 10*.

Psychology Associate Degree Program

The curriculum in the Psychology Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
MATH 10*	Introduction to Statistics	3
PSYC 1	Introduction to Psychology	3
PSYC 2*	Research Methods in Psychology	3
PSYC 3*	Biological Psychology	3
	Select from Restricted Electives	6
Total		18

Restricted Electives:

ANTH 1, 2; BIO 3A*, 11, 12, 20; CHEM 1A*; MATH 9; PHIL 1*; PSYC 5, 7, 21, 30, 33, 37; SOC 1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

Radio/Television/Film/ Post Production Certificate Program

The certificate program in Radio, Television, Film, and Electronic Media prepares the student in all areas relating to the understanding and use of electronic media, with particular emphasis on hands-on experience. Employment possibilities include: producing, directing, on-air talent, editing, and numerous other vocational opportunities. This program provides and encourages both field and studio work in the student's area of specialty (Radio, Television or Film). Coursework includes participation in internships at various stations and facilities.

Course ID	Title	Units
CA 1/JRN 1	Mass Media and Society	3
or		
CA 100	Introduction to Radio, TV, Film	3
CA 40*	Television and Film Scriptwriting I	3
CA 101	Video Production Basics	3
	Select 15 units from one Specialty Area	15
Total		24

Specialty Area 1—Television

Required courses:		
CA 124*	Television Production I	4
CA 125*	Television Production II	3
Electives: (8 units)		
CA 42*	Television and Film Directing	3
CA 111*	Advanced Audio Production and Sound Design	3
CA 126*	TV Production III	2
CA 128*	Television and Radio News and Public Affairs	3
CA 131	Non-Linear Editing I	3
CA 142*	Television and Film Scriptwriting II	3
CA 232*	Non-Linear Editing II	3
CA 233*†	Radio/Television/Film Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Radio/Television	1

Specialty Area 2—Radio

Required Courses:		
CA 110	Audio Production	3
CA 113*	Radio Broadcasting	3
Electives: (9 units)		
CA 111*	Advanced Audio Production and Sound Design	3
CA 115*	Advanced Radio Broadcasting	2
CA 118/MUS 118	Digital Multi-Track Music Recording	4
CA 128*	Television and Radio News and Public Affairs	3
CA 233*†	Radio/Television/Film Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Radio/Television	1

Specialty Area 3—Film

Required Courses:		
CA 31*	Film Production I	3
CA 32	Film Production II	3
Electives: (9 units)		
CA 42*	TV/Film Directing	3
CA 111*	Advanced Audio Production and Sound Design	3
CA 131	Non-Linear Editing I	3
CA 142*	Television and Film Scriptwriting II	3
CA 232*	Non-Linear Editing II	3
CA 233*†	Radio/Television/Film Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Radio/Television	1

Specialty Area 4—Post Production

Required Courses:		
CA 131	Non-Linear Editing I	3
CA 232*	Non-Linear Editing II	3
Electives: (9 units)		
CA 42*	TV/Film Directing	3
CA 111*	Advanced Audio Production and Sound Design	3
CA 118/MUS 118	Digital Multi-Track Music Recording	4
CA 233*†	Radio/Television/Film Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Radio/Television	1
CA 235*	Digital Special Effects	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Must be taken concurrently

Associate Degree**Associate in Science Degree**

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Digital Post Production Occupational Skills Awards

The Digital Post-Production Occupational Skills Award provides the opportunity to master the necessary, fundamental proficiencies to complete a film, television or electronic media production from the delivery of media to finished product. The courses assist in student development by focusing on specific technical skills as well as working on practical assignments that mirror real-world tasks. Completion of this Occupational Skills Award increases the value of the technical, aesthetic, and project management skills needed for employment and advancement in a career in this field.

Course ID	Title	Units
Required courses:		
CA 131	Non-Linear Editing I	3
CA 232*	Non-Linear Editing II	3
	Select from Restricted Electives	9
Total		15

Restricted Electives:

CA 42*	TV/Film Directing	3
CA 111*	Advanced Audio Production and Sound Design	3
CA 118/MUS 118	Digital Multi-Track Music Recording	4
CA 233*†	Radio/Television/Film Internship	1
<i>and</i>		
CWE 168*/169*†	Cooperative Work Experience: Radio/Television	1
CA 235*	Digital Special Effects	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Film Production Occupational Skills Awards

The Film Production Occupational Skills Award provides the opportunity to master the necessary, fundamental proficiencies to complete a filmic production from the conception to finished product. The courses assist in student development by focusing on specific technical skills as well as working on practical assignments that mirror real-world tasks, including the production of several broadcast-quality short films suitable for use on a demonstration reel. Completion of this program increases the value of the technical, aesthetic, and project management skills needed for employment and advancement in a career in this field.

Course ID	Title	Units
Required courses:		
CA 31*	Film Production I	3
CA 32	Film Production II	3
	Select from Restricted Electives	9
Total		15

Restricted Electives:

CA 42*	TV/Film Directing	3
CA 111*	Advanced Audio Production and Sound Design	3
CA 131	Non-Linear Editing I	3
CA 142*	Television and Film Scriptwriting II	3
CA 232*	Non-Linear Editing II	3
CA 233*+	Radio/Television/Film Internship	1
and		
CWE 168*/169*+	Cooperative Work Experience: Radio/Television	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Radio Broadcasting Occupational Skills Awards

The Radio Broadcasting Occupational Skills Award provides the opportunity to master the necessary, fundamental proficiencies to complete a radio production from the conception to finished product as well as to understand the principles of radio broadcasting and station management. The courses assist in student development by focusing on specific technical skills as well as working on practical assignments that mirror real-world tasks, including the production of broadcast-quality radio programs suitable for use on a demonstration reel and the hands-on management of the college's flagship radio station KSBR. Completion of this program increases the value of the technical, aesthetic, and project management skills needed for employment and advancement in a career in this field.

Course ID	Title	Units
Required courses:		
CA 110	Audio Production	3
CA 113*	Radio Broadcasting	3
	Select from Restricted Electives	9
	Total	15

Restricted Electives:

CA 111*	Advanced Audio Production and Sound Design	3
CA 115*	Advanced Radio Broadcasting	2
CA 118/MUS 118	Digital Multi-Track Music Recording	4
CA 128*	Television and Radio News and Public Affairs	3
CA 233*+	Radio/Television/Film Internship	1
and		
CWE 168*/169*+	Cooperative Work Experience: Radio/Television	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Television Production Occupational Skills Awards

The Television Production Occupational Skills Award provides the opportunity to master the necessary, fundamental proficiencies to complete a television production from the conception to finished product. The courses assist in student development by focusing on specific technical skills as well as working on practical assignments that mirror real-world tasks, including the production of broadcast-quality programs suitable for use on a demonstration reel. Completion of this program increases the value of the technical, aesthetic, and project management skills needed for employment and advancement in a career in this field.

Course ID	Title	Units
Required courses:		
CA 124*	Television Production I	4
CA 125*	Television Production II	3
	Select from Restricted Electives	8
	Total	15

Restricted Electives:

CA 42*	Television and Film Directing	3
CA 111*	Advanced Audio Production and Sound Design	3
CA 126*	TV Production III	3
CA 128*	Television and Radio News and Public Affairs	3
CA 131	Non-Linear Editing I	3
CA 142*	Television and Film Scriptwriting II	3
CA 232*	Non-Linear Editing II	3
CA 233*+	Radio/Television/Film Internship	1
and		
CWE 168*/169*+	Cooperative Work Experience: Radio/Television	1

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

PENDING STATE APPROVAL

Rapid Digital Manufacturing Certificate Program

Rapid Digital Manufacturing addresses the competencies required by technical, engineering, and management professionals working in industry where products are designed and developed, with specific emphasis on mechanical/manufacturing, art/animation, medical imagery, geographic information systems, and architecture.

The program is designed to develop a solid educational foundation for graduates to work closely with engineers, designers, and professionals in multiple industries, using additive processes for product development, 3D visualization, art, entertainment, architecture, medical modeling, and geographic information systems.

Course ID	Title	Units
CIM 221	Managing Projects with Microsoft Project	3
DR 51*/ARCH 51*	Computer-Aided Drafting	3
DR 152*/ARCH 152*	Advanced Computer-Aided-Drafting	3
MFG 200*	Introduction to Rapid-Prototyping Technology	3
MFG 201*	Advanced CAD Model Making and Tooling	2
MFG 202*	Industrial Materials	2
MFG 203	Introduction to Manufacturing Processes	2
MFG 204*	3D Computer-aided Design - Solidworks	3
MFG 289	Special Topics	3-6
	Total	24-27

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Real Estate

The Real Estate programs are designed to educate the student to become an effective real estate professional. The three programs are : Real Estate Appraisal, Real Estate Escrow, and Real Estate Sales/Broker.

Real Estate Appraisal Certificate Program

The Real Estate Appraisal program is designed to prepare students with educational courses needed for positions within the real estate appraisal profession and to meet the California State requirements under the Department of Business, Transportation and Housing Agency for the real estate licenses of State Licensed Real Estate Property Appraiser.

REAL ESTATE APPRAISAL LICENSE and/or CERTIFICATE: Please contact the California Office of Real Estate Appraisers.

Course ID	Title	Units
RE 176A*	Real Estate Appraisal I	3
RE 176B*	Real Estate Appraisal II	3
RE 178*	Real Estate Economics	3
RE 200	Uniform Standards of Professional Appraisal Practice (USPAP)	1.5
RE 222*	Real Estate Calculations	3
	Select from Specialty Courses	6
Total		19.5

Specialty Courses:

RE 170	Real Estate Principles	3
RE 174*	Legal Aspects of Real Estate	3
RE 175*	Real Estate Finance	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: BUS 1, 135, 137.

Real Estate Escrow Certificate Program

The Escrow program is designed to educate the student to become an effective escrow professional. Activities related to this field are escrow principles, practice, and problems. Associated courses in real estate, management, and office procedures are provided.

Course ID	Title	Units
CIM 120	Computer Literacy	1.5
CIM 121A	Keyboarding for Computers: Beginning	1.5
RE 170	Real Estate Principles	3
RE 172*	Real Estate Practice	3
RE 174*	Legal Aspects of Real Estate	3
RE 175*	Real Estate Finance	3
RE 190	Escrow	3
Total		18

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES (Select two courses to meet the Educational Achievement Award requirements of the California Escrow Association): ACCT 1A, 214, 215; BUS 12, 104*, 125, 160; RE 176A*, 178*.

Real Estate Sales/Broker Certificate Program

This Real Estate program is designed to educate the student to become an effective Real Estate professional. Activities related to the program are real estate practice, law, appraisal, finance, computations, escrow, investment, exchanging, and taxation.

REAL ESTATE SALESPERSON LICENSE: RE 170, 172, and one additional elective must be completed before enrolling for the State exam. Electives list: ACCT 215, BUS 12, RE 122, 174, 175, 176A, 178, 190, 195, 280. Please check with the California Department of Real Estate for any changes.

REAL ESTATE BROKER LICENSE: Five courses are required: RE 172, 174, 175, 176A, and 178 or ACCT 215. In addition, three more courses must be taken from the following list: BUS 12, RE 122, 170, 176B, 190, 195, 280. Please check with the California Department of Real Estate for any changes. The 30-unit Certificate meets the Broker License examination course requirements.

Course ID	Title	Units
RE 170	Real Estate Principles	3
RE 172*	Real Estate Practice	3
RE 174*	Legal Aspects of Real Estate	3
RE 175*	Real Estate Finance	3
RE 176A*	Real Estate Appraisal I	3
RE 178*	Real Estate Economics	3
	Select nine units from Restricted Electives	9
	Select one Specialty Course	3
Total		30

Restricted Electives:

RE 122*	Real Estate Office Administration	3
RE 176B*	Real Estate Appraisal II	3
RE 190	Escrow	3
RE 195*	Property Management	3
RE 280	Mortgage Loan Brokering and Lending	3

Specialty Courses:

BUS 137	Professional Selling Fundamentals	3
RE 202*	Real Estate Technologies	3
RE 222*	Real Estate Calculations	3
RE 250*	Real Estate License Preparation	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 110, 214; BUS 12, 110, 120, 125, 135; CIM 121A; ECON 2, 4; RE 176B*, 195.

Social Sciences Associate Degree Program

The curriculum in the Social Sciences Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Twelve units in Social Science subject area of emphasis.

HIST 4	World History to 1750	3
HIST 5	World History from 1750	3
HIST 16	History of the United States to 1876	3
HIST 17	History of the United States Since 1876	3

Six units in Social Science secondary area of emphasis.

PS 1	American Government	3
PS 4	Introduction to Political Science	3
PS 14	International Relations	3

Three units of Social Science electives.

ANTH 2	Cultural Anthropology	3
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Total		21
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Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

Sociology Associate Degree Program

The curriculum in the Sociology Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
ANTH 2	Cultural Anthropology	3
MATH 10*	Introduction to Statistics	3
PSYC 1	Introduction to Psychology	3
SOC 1	Introduction to Sociology	3
SOC 2	Social Problems	3
SOC 10	Introduction to Marriage and the Family	3
SOC 30*/PSYC 30*	Social Psychology	3
Total		21

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: CS 1A; GEOG 2; SOC 20/HIST 20, 81; SOC 4, 5, 20, 25; PSYC 2.

Speech/Communication Associate Degree Program

The curriculum in the Speech/Communication Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested courses for the Associate degree:

Course ID	Title	Units
SP 1	Communication Fundamentals (meets AA Speech requirements)	3
SP 2*	Persuasion	3
SP 3*	Argumentation and Debate	3
SP 5	Interpersonal Communication	3
SP 30/TA 30	Introduction to Oral Interpretation	3
SP 32*/TA 32*	Interpreters' Theatre	3
Total		18

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED Electives: ANTH 20/SP 20; SP 8, 106.

Technology Associate Degree Program— General Technology

The General Technology Associate Degree provides students the opportunity to achieve an Associate degree using occupational and vocational courses, and to afford maximum flexibility to students in designing a program which may lead to employment.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Alternative major patterns will vary depending upon the student's career or educational objectives. The student who has demonstrated breadth in general technology by completion of a minimum of 18 units, in addition to those required to fulfill general education requirements, of courses appropriate for majors offered in the Division of Advanced Technology and Applied Science, or other areas such as industrial technology, industrial arts, fire protection administration and technology, or vocational education may receive an Associate degree in general technology.

Theatre Arts Associate Degree Program

The curriculum in the Theatre Arts Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Possible entry-level career opportunities for students completing this program include various stagecraft positions in local repertory theatres and the entertainment industry.

Sample Course of Study

Course ID	Title	Units
First Year—Fall Semester		
TA 1	Acting	3
TA 15, 16, 17, 18 or 19	Rehearsal and Performance (Tech. and/or Acting)	1-2
TA 35/SP 35	Voice and Diction	3
TA 40	Stagecraft	4
TA 43	Stage Make-up	1

First Year—Spring Semester

TA 2*	Beginning Scene Study	3
TA 15, 16, 17, 18 or 19	Rehearsal and Performance (Tech. and/or Acting)	1-2
TA 42	Costume Design	3

Second Year—Fall Semester

TA 3*	Advanced Scene Study	3
TA 15, 16, 17, 18 or 19	Rehearsal and Performance (Tech. and/or Acting)	1-2
TA 25	Theatre History: Primitive to Renaissance	3
TA 41*	Stage Lighting	3

Second Year—Spring Semester

TA 4*	Acting Styles: Classical	3
or TA 5*	Acting Styles: Contemporary	
TA 15, 16, 17, 18 or 19	Rehearsal and Performance (Tech. and/or Acting)	1-2
TA 26	Theatre History: Renaissance to Contemporary	3
TA 45*	Scene Design	3
TA 142	Theatre Production	1
Total		40-44

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.

RECOMMENDED ELECTIVES: TA 4, 5, 7, 10, 11, 12, 20, 22, 30, 32, 44, 108, 110, 113, 130.

Travel and Tourism Certificate Program

The Travel and Tourism program is designed to prepare students for careers in the travel agency industry. The program stresses the following: ticketing and reservations, major tourist areas and resorts, fares and routes, tour promotion, and planning. The program covers all aspects of travel including air, cruise ships, rail, and car.

Course ID	Title	Units
TOUR 250	Introduction to Travel and Tourism	3
TOUR 252	World Destinations/Resorts— Western Hemisphere	3
TOUR 253	World Destinations-Europe	3
TOUR 254	World Destinations-Pacific, Asia, Africa	3
TOUR 255	Travel Sales and Marketing	3
TOUR 257	Tours and Cruises	3
TOUR 259*†	Airline Computer Training	2
TOUR 260*	Advanced Airline Computer Training	2
CWE 168*/169*	Cooperative Work Experience: Travel Agency Operation	1
Total		23

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

†Recommended to be taken in last semester of program.

Associate Degree

Associate in Science Degree

Completion of the certificate program and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Science degree. A minimum of 12 units must be completed at Saddleback College.

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

RECOMMENDED ELECTIVES: ACCT 215; BUS 1, 102, 125, 135, 137, 138; CIM 121AB.

Women's and Gender Studies Associate Degree Program

The curriculum in the Women's and Gender Studies Associate Degree program is designed to provide the student the opportunity to achieve an Associate degree. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree would demonstrate commitment to the major. Attainment of an Associate degree may support attempts to gain entry-level employment.

Suggested major courses for the Associate in Science degree:

CORE REQUIREMENT:

Course ID	Title	Units
WS 10	Introduction to Women's Studies	3

Majors must also select a minimum of 17 units from the following courses:

ANTH 21	Women and Culture: Cross-Cultural Perspectives	3
ART 21	Women and Art	3
CA 29	Women in Film and Television	3
ENG 50*	Women Authors	3
HIST 21	Women in United States History: A Multicultural Perspective	3
HLTH 3	Women's Health Issues	3
MUS 29	Women, Music, and Society	3
PSYC 21	The Psychology of Women	3
SOC 21	Women in Contemporary Society	3
SP 8	Gender Communication	3
WS 10	Introduction to Women's Studies	3
WS 40	Women and Religion: In Search of the Goddess	3
WS 120	Women and Careers	3

*Course has a prerequisite, corequisite, limitation, or recommended preparation; see course description.

Associate Degree

Associate in Arts Degree

Complete at least 18 units (or as described in the major area of study) in a single subject or related disciplines and a minimum of 60 units including the general education requirements with an overall GPA of 2.0 qualifies the student for the Associate in Arts degree. A minimum of 12 units must be completed at Saddleback College.

Refer to the Graduation Requirements for the specific course list meeting general education requirements.

Refer to the Transfer Major Patterns section of this catalog or to the catalog of the intended college of transfer. Courses selected to fulfill requirements for the Associate degree should reflect requirements of the college to which the student plans to transfer. Consult with a counselor for assistance in planning a program.