

CHABOT COLLEGE
CATALOG ADDENDUM
2004-2006



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CATALOG UPDATE

The current Chabot College Catalog covers the period 2003-2005. Chabot College will not produce a new catalog this year but, rather, this addendum which reflects all changes or corrections through Spring, 2006. It is anticipated that a fully revised college catalog will be produced in Spring 2006.

This catalog supplement should be used by students and staff along with the existing 2003-2005 catalog. Students are strongly encouraged to seek advice from the Counseling Division. Additional information and publications will be made available to students throughout the year as appropriate.

CHABOT COLLEGE CATALOG ADDENDUM

2004-2006

USING THE 2004-2006 CATALOG ADDENDUM

This Addendum contains curriculum changes affecting both the 2004-05 and the 2005-06 academic years. In some cases, 2005-2006 changes supersede those listed in the 2004-2005 section. Those have been clearly marked in the 2004-2005 section. In other cases, you should consult both sections to see all the changes that have been made. **Refer to the Table of Contents on the next page to see which pages you should view for a particular area.**

DIRECTORY

	TELEPHONE NUMBER
President	723-6640
Vice President, Academic Services	723-6627
Applied Technology & Business	723-6653
Arts & Humanities	723-6829
Health Sciences, P.E. & Athletics	723-7484
Language Arts	723-6804
Library	723-7513
Science & Mathematics	723-6898
Social Sciences	723-6670
Vice President, Business Services	723-6994
Bookstore	723-6926
Cafeteria	723-6651
Campus Safety	723-6923
Vice President, Student Services	723-6743
Admissions and Records	723-6700
Children's Center	723-6684
Counseling	723-6718
Disabled Student Resource Center	723-6725
Financial Aid	723-6748
Special Programs and Services	723-6917
Student Life	723-6914

CHABOT COLLEGE

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ACADEMIC CALENDAR 2005-2006

FALL SEMESTER 2005

Orientation Week	
August 15, 16	New Faculty Orientation
August 17	District Convocation
August 18	Staff Development Day
August 19	College/Division/Day
August 22	INSTRUCTION BEGINS
August 27	Instruction Begins Saturday Classes
September 2	Last day to Add or Drop (NGR–No Grade of Record) in person
September 3-5	Holiday Weekend – Labor Day No Instruction
September 5	Last day to Add or Drop (NGR–No Grade of Record) online
September 6	CENSUS DAY
September 23	Deadline to apply for Credit/No Credit
October 31	60% Point for Financial Aid
November 10	Last day to drop with a "W" (Withdrawal) (in person)
November 11	Last day to drop with a "W" (Withdrawal) (online)
November 11	Holiday – Veterans Day
November 23, 24, 25, 26	Holiday – Thanksgiving No Instruction
December 10	Last Day of Instruction, Saturday Classes
December 14	LAST DAY OF INSTRUCTION
December 15-21	Final Examination Period
December 17	Final Examination for Saturday Classes
January 3	Deadline for Instructors to File Grades
December 22-January 16	Semester Recess No Instruction

SPRING SEMESTER 2006

January 16	Holiday – Martin Luther King, Jr. Day
January 17	INSTRUCTION BEGINS
January 21	Instruction Begins Saturday Classes
February 3	Last day to Add or Drop (NGR–No Grade of Record) in person
February 5	Last day to Add or Drop (NGR–No Grade of Record) online
February 6	CENSUS DAY
February 16	FLEX DAY Day Classes Cancelled Evening Classes In Session
February 17	Deadline to apply for Credit/No Credit
February 17-20	Holiday – Presidents' Days
April 6	60% Point for Financial Aid
April 7	Last day to drop with a "W" (Withdrawal) (in person)
April 9	Last day to drop with a "W" (Withdrawal) (online)
April 10-14	Spring Break No instruction
April 14	Deadline to Apply for Graduation End of Spring Semester 2005
May 13	Last Day of Instruction, Saturday Classes
May 19	LAST DAY OF INSTRUCTION
May 20	Final Examination for Saturday Classes
May 20-26	Final Examination Period
May 26	COMMENCEMENT
June 1	Deadline for Instructors to File Grades

GENERAL INFORMATION

CHANGES TO PAGE 11

CHABOT COLLEGE VISION AND MISSION STATEMENTS

July 1, 2004

VISION

Chabot College is a learning-centered institution with a culture of thoughtfulness and academic excellence, committed to creating a vibrant community of life-long learners.

MISSION

Chabot College is a public comprehensive community college that prepares students to succeed in their education, progress in the workplace, and engage in the civic and cultural life of the global community. The college furthers student learning and responds to the educational needs of our local population and economy. The college serves as an educational leader, contributing its resources to the intellectual, cultural, physical, and economic vitality of the region. Recognizing that learning is a life-long journey, the college provides opportunities for the intellectual enrichment and physical well-being of all community members who can benefit.

VALUES

The college's vision and mission are supported by the following collective values:

LEARNING AND TEACHING

- supporting a variety of teaching philosophies and learning modalities
- providing an environment conducive to intellectual curiosity and innovation
- encouraging collaboration that fosters learning
- engaging in ongoing reflection on learning, by students and by staff
- cultivating critical thinking in various contexts
- supporting the development of the whole person

COMMUNITY AND DIVERSITY

- building a safe and supportive campus community
- treating one another with respect, dignity, and integrity
- practicing our work in an ethical and reflective manner
- honoring and respecting cultural diversity
- encouraging diversity in our curriculum and community of learners

INDIVIDUAL AND COLLECTIVE RESPONSIBILITY

- taking individual responsibility for our own learning
- cultivating a sense of social and individual responsibility
- developing reflective, responsible and compassionate citizens
- playing a leadership role in the larger community
- embracing thoughtful change and innovation

CHANGES TO PAGE 13

(Revise as follows)

CITIZENS' ADVISORY BOARDS

Citizens' Advisory Boards, composed of leaders in business, industry, labor, public agencies, and the professions are working with the administration to develop curricula.

The Advisory Boards assure that instructional programs are developed in accordance with the needs of business, industry and professions in the District.

The Advisory Boards advise the colleges on the need or desirability of a particular educational program or course, content of such programs or courses, performance standards, equipment and facilities, selection of students, placement of students, technical information evaluation, teacher recruitment and financial and legislative matters.

The following Advisory Boards presently operate: Accounting, Administration of Justice, Architectural, Automotive, Computer Application Systems, Dental Health Programs, Design Technology, Early Childhood Development, Electronics, Engineering, Fire Technology, Graphic Communications, Health Information Technology, Inspection, Interior Design, Machine Tool and Manufacturing, Medical Assisting, Nursing, Radio and Television Broadcasting, Real Estate, Service to Seniors, Welding. As new needs are identified, other Advisory Boards will be appointed to assist the college in developing appropriate programs.

CHANGES TO PAGE 14

FEES

Enrollment Fee: \$26 per semester unit (subject to change).

Nonresident Tuition: Out-of-state students are required to pay \$152 per semester unit in addition to the enrollment fee and basic fees.

International, Non-immigrant Visa Tuition: International students and non-immigrant aliens attending on other visa types are required to pay \$155 per semester unit in addition to the enrollment fee and basic fees.

CHANGES TO PAGE 15

Parking Fees: Students who wish to park their vehicles on College parking lots must purchase their parking permit or a ticket for each day that parking is desired. The fee is \$30.00 per semester—4 wheel vehicle; \$15.00 per semester—motorcycle, and \$2.00 for daily parking. Students eligible for the Board of Governors (BOG) Fee Waiver pay \$20 per semester.

Student Health Fee: Mandatory health service fee of \$13 per semester to support health services for enrolled students...

FEES ARE SUBJECT TO CHANGE

Enrollment fees are regulated by the State budget. The College reserves the right to collect enrollment fee increases approved by the State Legislature from all students including those who have paid fees prior to the implementation of new rates.

CHANGES TO PAGE 170

(Revise)

Sex or Sexual Orientation

Chabot College does not discriminate on the basis of sex or sexual orientation in the educational programs or activities it conducts...

(Revise)

DECLARACION DE NO DISCRIMINACION

Chabot College, de acuerdo con las leyes civiles, declara que no discrimina hacia ninguna persona a base de su raza, color, nacionalidad, ascendencia, religion, creencia, sexo, orientación sexual, edad o incapacidad...

CURRICULUM CHANGES

2004-2005

Program and course changes in this section
went into effect Fall Semester 2004.

They remain in effect for 2005-2006
except as noted below:

Boxed programs and courses
were in effect for 2004-2005 only.
They change again in Fall 2005.

See the 2005-2006 Section
for revisions effective Fall 2005.



GRADUATION REQUIREMENTS

CHANGES TO PAGE 17

- I. ASSOCIATE IN ARTS DEGREE (A.A.)**
- A. LANGUAGE AND RATIONALITY
Communications and Analytical Thinking
(Add)
History 12*
- C. HUMANITIES
(Add)
English 34
- D. SOCIAL AND BEHAVIORAL SCIENCES
(Add)
History 27*
Political Science 2*
- *May be used to fulfill one area only.*
- E. HEALTH AND PHYSICAL EDUCATION
**2. Physical Education Complete 2 SEM UNITS
(Add)**
Physical Education 4
- AMERICAN INSTITUTIONS **Complete a minimum
of 6 SEM UNITS**
- (Replace as follows)**
Select one course from Group A and one course
from Group B
Group A: History 7* ,20* or Political Science 1*
Group B: History 8*, 12*, 21*, 22*, 25*, 27*
Political Science 2*
- *May be used to fulfill one area only.*

CHANGES TO PAGE 19

- I. ASSOCIATE IN SCIENCE DEGREE (A.S.)**
- A. LANGUAGE AND RATIONALITY
Communications and Analytical Thinking
(Add)
History 12*
- C. HUMANITIES
(Add)
English 34
- D. SOCIAL AND BEHAVIORAL SCIENCES
(Add)
History 27*
Political Science 2*
- *May be used to fulfill one area only.*
- E. HEALTH or AMERICAN INSTITUTIONS
& PHYSICAL EDUCATION
**1. Health Education OR
American Institutions: Complete 3 SEM UNITS
(Replace as follows)**
Health 1, 4, Physical Education 18 or
History 7*, 8*, 12*, 20*, 21*, 22*, 25*, 27* or
Political Science 1*, 2*
- 2. Physical Education . Complete 1 SEM UNIT
(Add)**
Physical Education 4
- *May be used to fulfill one area only.*

CHANGES TO PAGE 23

CALIFORNIA STATE UNIVERSITY (CSU)

Upper Division Transfer Requirements:
You are eligible for admission to the CSU if you:

(Revise paragraph)

- Completed or will complete 60* semester (90) quarter) or more CSU transferable units with an overall GPA of 2.0 or better.

(Add footnote)

*Some CSU institutions may allow 56 units. Check with individual campuses for their requirements.

ADVANCED PLACEMENT PROGRAM

CHANGES TO PAGE 25

(Revise chart as follows)

AP Examination	AP Score	Subject Credit Given For:	Prerequisite Met For the Following Course(s)	Chabot Credits Issued For Graduation	1. AA/AS GE 2. CSU/GEB 3. IGETC Requirement Met
CHEMISTRY	3, 4, 5	Chemistry 1A	Biology 2A Chemistry 1B Engineering 45	5 units	1. Satisfies Area B 2. 6 units toward Area B1 and B3 (lab) 3. Satisfies Area 5, Group A (no lab units)
ECONOMICS Micro	3, 4, 5	Economics 1	n/a	3 units	1. Satisfies Area D 2. 3 units toward Area D2 3. 3 units toward Area 4
ECONOMICS Macro	3, 4, 5	Economics 2	n/a	3 units	1. Satisfies Area D 2. 3 units toward Area D2 3. 3 units toward Area 4

DEGREE PROGRAMS AND TRANSFER MAJORS

CHANGES TO PAGES 27-29

(Revise Titles)

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
(From) Fire Service Technology (To) Fire Technology		X		X	
(From) Fire Service Technology - Inspector (To) Fire Prevention Inspector		X		X	

(Add)

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
Geography		X			
Psychology-Counseling - Human Services (Pending State Approval)		X	X		
Retail Management				X	
Retailing					X

CHANGES TO PAGE 30

Special Numbers and Rubrics
(Add)
 500 Supplementary Instruction Lab Courses

**ADMINISTRATION OF JUSTICE
 (ADMJ)**

**ADMINISTRATION OF JUSTICE
 ASSOCIATE IN ARTS DEGREE**

SOPHOMORE YEAR

(Change from) Administration of Justice 62 (The Justice System)
(To) Administration of Justice 63 (Criminal Investigation)

***Administration of Justice Options*

(Add) Administration of Justice 62, 79

(Delete) Administration of Justice 63, 81, 82

CHANGES TO PAGE 31

(Delete prerequisite)
 54 INVESTIGATIVE REPORTING 3 UNITS
 ...concise report...3 hours.

(Delete prerequisite)
 60 CRIMINAL LAW 3 UNITS
 ...social force. 3 hours...

(Delete prerequisite)
 61 EVIDENCE 3 UNITS
 ...case studies. 3 hours...

CHANGES TO PAGE 32

(Delete prerequisite)
 63 CRIMINAL INVESTIGATION 3 UNITS
 ...specific crimes. 3 hours...

(Delete prerequisite)
 74 GANGS AND DRUGS 2 UNITS
 ...drug trafficking. 2 hours.

(Delete prerequisite)
 79 HOMICIDE INVESTIGATION 3 UNITS
 ...investigation of course. 3 hours.

ANTHROPOLOGY (ANTH)

CHANGES TO PAGE 33

(Title change)
 5 CULTURES OF THE U.S.: ANTHROPOLOGICAL
 PERSPECTIVES ON RACE, CLASS,
 GENDER AND ETHNICITY 3 UNITS

ARCHITECTURE (ARCH)

CHANGES TO PAGES 34 & 35

DEGREE:

~~AS—ARCHITECTURE [Add] (PENDING STATE
 APPROVAL) [APPROVED]~~

(Add)
 500 ARCHITECTURE STUDIO 0 UNITS
 Extended study of various topics from the standard transfer program in architecture. Emphasis on developing an in-depth understanding of how design theory, freehand techniques, and computer graphics are used to produce successful architectural renderings and plans. Corequisite: Architecture 2A, 2B, 4A, 4B, 8A, 8B, 16, 31A, 31B, 32A, 32B, 33, or 68. Variable hours laboratory.

ART (ART)

CHANGES TO PAGE 40

(Add)
 500 ART SKILLS DEVELOPMENT LAB 0 units
 Extended practice of various topics from the fine arts courses. Emphasis on developing manual dexterity, technical proficiency, and visual literacy. Corequisites: Art 7A, 7B, 7C, 7D, 12A, 12B, 12C, 12D, 13A, 13B, 13C, 13D, 16A, 16B, 16C, 16D, 17, 18, 19, 20, 31A, 31B, 32A, 32B. Variable hours laboratory.

AUTOMOTIVE TECHNOLOGY (AUTO)

CHANGES TO PAGE 41 & 42

**AUTOMOTIVE DIAGNOSTIC TECHNOLOGY
 ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR FALL SPRING
(Title and unit change)
 Automotive Technology 50
 (Automotive Fundamentals) 2¹/₂
Total 37

**AUTOMOTIVE TECHNOLOGY
 ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR FALL SPRING
(Title and unit change)
 Automotive Technology 50
 (Automotive Fundamentals) 2¹/₂
Total 44

AUTOMOTIVE MECHANICS
CERTIFICATE OF ACHIEVEMENT

FRESHMAN YEAR FALL SPRING
(Title and unit change)
 Automotive Technology 50
 (Automotive Fundamentals) 2¹/₂
Total 27¹/₂

AUTOMOTIVE SERVICE
CERTIFICATE OF ACHIEVEMENT

FRESHMAN YEAR FALL SPRING
(Title and unit change)
 Automotive Technology 50
 (Automotive Fundamentals) 2¹/₂
Total 27

AUTOMOTIVE TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT

FRESHMAN YEAR FALL SPRING
(Title and unit change)
 Automotive Technology 50
 (Automotive Fundamentals) 2¹/₂
Total 44

(Title and unit change)
 50 AUTOMOTIVE FUNDAMENTALS 2¹/₂ UNITS
(May be repeated three times)

Automotive industry fundamentals including engine operating principles; engine teardown and diagnosis; fastener recognition, use and repair; hand tool identification and usage; electrical fundamentals; service information access and use; automotive chemical and fluid applications; hazardous waste handling; general shop equipment usage, and shop safety. 1½ hours lecture, 3½ hours laboratory. Transfer: CSU.

(Title correction)
 62 AUTOMOTIVE AIR CONDITIONING
 COOLING AND HEATING SYSTEMS 2¹/₂ UNITS

BIOLOGICAL SCIENCES

CHANGES TO PAGE 46

PHYSIOLOGY (PHSI)

(Revision)
 2 PATHOPHYSIOLOGY 3 UNITS
 ...May be offered in Distance Education delivery format. 3 hours.

BUSINESS (BUS)

CHANGES TO PAGE 47-49

CERTIFICATE OF ACHIEVEMENT:

(Add)
RETAIL MANAGEMENT (PENDING STATE APPROVAL)

CERTIFICATE OF COMPLETION:

(Add)
RETAILING

■ ■ ■ ■ ■ APPLIES TO 2004-05 ONLY. ■ ■ ■ ■ ■
 SEE THE 2005-06 SECTION FOR REVISIONS.
 ■ ■ ■ ■ ■

BUSINESS ADMINISTRATION
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

SOPHOMORE YEAR FALL SPRING
(Course change)
 Computer Application Systems 50
 (Introduction to Computer Application
 Systems) or
 Computer Application Systems 8
 (Computer Literacy) or
 Computer Science 8 (Computer Literacy) 3

BUSINESS (GENERAL)
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL

SOPHOMORE YEAR FALL SPRING
(Course change)
 Computer Application Systems 54A
 (Microsoft Excel I) or
 Computer Science 8 (Computer
 Literacy) or
 Computer Application Systems 8
 (Computer Literacy) or
 Computer Application Systems 50
 (Introduction to Computer Application
 Systems) 3

BUSINESS
(EMPHASIS IN INTERNATIONAL BUSINESS)
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL

SOPHOMORE YEAR FALL SPRING
(Course change)
 Computer Application Systems 54A
 (Microsoft Excel I) or
 Computer Application Systems 55
 (Microsoft Office® Integration and
 Advanced Topics) 3-4
Total 43-46

**BUSINESS
(EMPHASIS IN MARKETING)**
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL

SOPHOMORE YEAR	FALL	SPRING
(Course change)		
Computer Application Systems 54A (Microsoft Excel I) or Computer Science 8 (Computer Literacy) or Computer Application Systems 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3

**BUSINESS
(EMPHASIS IN MANAGEMENT)**
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL

SOPHOMORE YEAR	FALL	SPRING
(Course change)		
Computer Application Systems 54A (Microsoft Excel I) or Computer Application Systems 55 (Microsoft Office® Integration and Advanced Topics)		3-4
Total		40-43

ACCOUNTING TECHNICIAN
CERTIFICATE OF ACHIEVEMENT

(Title change)

Computer Application Systems 58 (Introduction to Microsoft Access®)		3
--	--	---

(Add)

RETAIL MANAGEMENT
CERTIFICATE OF ACHIEVEMENT
PENDING STATE APPROVAL

This certificate is developed in accordance with the Western Association of Food Chains' new *W AFC Retail Management Certificate Program*, a program that has been fully endorsed by the Western Association of Food Chains and its member companies. The certificate's curriculum was developed out of a collaborative effort between several industry and college professionals and encompasses several business essentials, including the "soft skills" of management and communication required for career success in the retail industry.

CORE COURSES	FALL	SPRING
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)		3-4
Business 14 (Business Communications)		3
Business 15 (Business Correspondence)		3
Business 16 (Business Mathematics)		3

Business 21 (Human Resource Management) .	3
Business 22 (Introduction to Management)	3
Business 28 (Human Relations in the Workplace)	3
Business 32 (Retail Store Management)	3
Business 36 (Introduction to Marketing)	3
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)	3
Total	30-31

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

MANAGEMENT
CERTIFICATE OF COMPLETION
PENDING STATE APPROVAL

CORE COURSES	FALL	SPRING
(Title correction)		
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)		3-4
(Unit change)		
Option*		6-7
Total		18-20

*Select at least six units from the following

(Add)
Business 10 (Business Law) 4 units

(Add)

RETAILING
CERTIFICATE OF COMPLETION

CORE COURSES	FALL	SPRING
Business 14 (Business Communications) or Business 15 (Business Correspondence)		3
Business 16 (Business Mathematics)		3
Business 22 (Introduction to Management)		3
Business 32 (Retail Store Management)		3
Business 36 (Introduction to Marketing)		3
Total		15

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

CHANGES TO PAGE 50

(Add credit restriction)
5 INTRODUCTION TO PEACHTREE
ACCOUNTING 1 UNIT
...(Combined credit for Computer Application Systems 60, Business 5, and/or Business 7 may not exceed 12 units.) 1 hour lecture, 1 hour laboratory. Transfer: CSU.

(Add credit restriction)

7 GENERAL ACCOUNTING 3 UNITS
 ...(Combined credit for Computer Application Systems 60, Business 5, and/or Business 7 may not exceed 12 units.) 3 hours lecture, 1 hour laboratory. Transfer: CSU.

CHANGES TO PAGE 51

(Title correction)

96 BUSINESS WORK EXPERIENCE SEMINAR 1 UNIT

CHEMISTRY (CHEM)

1B GENERAL COLLEGE CHEMISTRY 5 UNITS

(Revise description)

Continuation of Chemistry 1A. Chemical energetics and equilibria, solutions and ionic equilibria...

CHANGES TO PAGE 52

CHICANO/LATINO STUDIES

CHICANO/LATINO STUDIES
 ASSOCIATE IN ARTS DEGREE
 (PENDING STATE APPROVAL)

CORE COURSES FALL SPRING

(Title Change)

History 22 (Mexican American History in the Development of U.S. History from Pre-Columbian Period to the Present) 3 3

CHANGES TO PAGE 53-55

COMPUTER APPLICATION SYSTEMS (CAS)

■■■■■ APPLIES TO 2004-05 ONLY. ■■■■■

SEE THE 2005-06 SECTION FOR REVISIONS.

COMPUTER APPLICATION SYSTEMS—
COMPUTER PROGRAMMING
 ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR FALL SPRING

(Course substitution: Replace CAS 55A with)

Computer Application Systems 55
 (Microsoft Office® Integration and Advanced Topics) 4

Total 36

COMPUTER APPLICATION SYSTEMS—
COMPUTER SOFTWARE APPLICATIONS
 ASSOCIATE IN ARTS DEGREE

SOPHOMORE YEAR FALL SPRING

(Course substitution: Replace CAS 55A with)

Computer Application Systems 55
 (Microsoft Office® Integration and Advanced Topics) 4

(Delete)

Computer Application Systems 55B
 (Microsoft Office® Applications Integrations II) 4

(Title correction)

Computer Science 12 (Advanced Visual BASIC Programming) 2

Total 35-38

COMPUTER APPLICATION SYSTEMS—
COMPUTER SOFTWARE APPLICATIONS
 CERTIFICATE OF ACHIEVEMENT

(Revised)

CORE COURSES FALL SPRING

Computer Application Systems 50
 (Introduction to Computer Application Systems) or
 Computer Application Systems 8
 (Computer Literacy) or
 Computer Science 8 (Computer Literacy) 3

Computer Application Systems 54A
 (Microsoft Excel® I) 3

Computer Application Systems 54B
 (Microsoft Excel® II) 3

Computer Application Systems 55
 (Microsoft Office® Integration and Advanced Topics) 4

Computer Application Systems 80 (BASIC – Computer Programming in BASIC) 4

Computer Application Systems 58
 (Introduction to Microsoft Access®) 3

Computer Application Systems 82
 (Designing Web Pages) 3

Total 23

ADMINISTRATIVE ASSISTANT
 CERTIFICATE OF ACHIEVEMENT

(Revised)

CORE COURSES FALL SPRING

Business 1A (Principles of Accounting I) or
 Business 7 (General Accounting) 3-4

Computer Application Systems 70
 (Computer Keyboarding and Formatting) or
 Computer Application Systems 72A
 (Elementary Computer Keyboarding I) and

Computer Application Systems 72B (Elementary Computer Keyboarding II) and Computer Application Systems 72C (Computer Keyboarding III)	3
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)	3
Computer Application Systems 88A (Microsoft Word® I)	3
Computer Application Systems 54A (Microsoft Excel® I)	3
Business 14 (Business Communications) or Business 15 (Business Correspondence) ..	3
Business 28 (Human Relations in the Workplace) or Business 22 (Introduction to Management)	3
Computer Application Systems 88B (Microsoft Word® II)	3
Computer Application Systems 54B (Microsoft Excel® II) or Computer Application Systems 58 (Introduction to Microsoft Access®)	3
Total	27-28

**OFFICE TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT**

(Revised)

CORE COURSES	FALL	SPRING
Computer Application Systems 70 (Computer Keyboarding and Formatting) or Computer Application Systems 72A (Elementary Computer Keyboarding I) and Computer Application Systems 72B (Elementary Computer Keyboarding II) and Computer Application Systems 72C (Computer Keyboarding III)		3
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Business 14 (Business Communications) or Business 15 (Business Correspondence)		3
Computer Application Systems 88A (Microsoft Word® I)		3
Computer Application Systems 54A (Microsoft Excel® I)		3
Electives*		5
Total		20

*Five units may be selected from the following:

- Computer Application Systems 54B (Microsoft Excel® II) 3 units
- Computer Application Systems 58 (Introduction to Microsoft Access®) 3 units
- Computer Application Systems 72H (Proofreading Skills) 1 unit
- Computer Application Systems 72I (Filing and Records Management) 1 unit
- Computer Application Systems 72J (Ten-Key) 1 unit
- Computer Application Systems 82 (Designing Web Pages) 3 units
- Computer Application Systems 88B (Microsoft Word® II) 3 units

(Revise)

8 COMPUTER LITERACY 3 UNITS
(See also Computer Science 8)

Introduction to computers including: Microsoft Windows, Microsoft Office, Multimedia, the internet, browsers, World Wide Web, an awareness of types of computer software in use including programming languages, electronic mail, computer-based careers and trends, and other computing issues in today's society. No prior computer experience necessary. Course recommended for students of any major who want to learn about computers and how to use them. Hands-on laboratory experience reinforces lecture. Strongly recommended: eligibility for Mathematics 65 or Mathematics 65A (May not receive credit if Computer Science 8 has been completed.) May be offered in Distance Education delivery format. 2 hours lecture, 2 hours laboratory. Transfer: CSU, UC; AA/AS; (CAN CSCI 2)

(Delete)

41 INTRODUCTION TO UNIX 2 UNITS

(Revise)

50 INTRODUCTION TO COMPUTER APPLICATION SYSTEMS 3 UNITS

Introduction to computer applications for business and home use. Includes hardware and common software applications such as Word, Excel, PowerPoint, and Access, plus an understanding of an Internet Browser for the World Wide Web, HTML, personal computer, and familiarization with its capabilities in a Windows environment. May be offered in Distance Education delivery format. 3 hours lecture, 1 hour laboratory. Transfer: CSU; CSU/GE: D7.

CHANGES TO PAGE 56

(Delete)

55A MICROSOFT OFFICE APPLICATIONS INTEGRATION I 3 UNITS

(Delete)

55B MICROSOFT OFFICE APPLICATIONS INTEGRATION II 4 UNITS

■■■■■ APPLIES TO 2004-05 ONLY. ■■■■■
SEE THE 2005-06 SECTION FOR REVISIONS.
■■■■■

(Add)

55 MICROSOFT OFFICE® INTEGRATION AND ADVANCED TOPICS 4 UNITS

Advanced computer concepts and topics for using the integrated features of Microsoft Office. Prerequisite: Computer Applications Systems 50 or Computer Application Systems 8 or Computer Science 8. (Combined credit for Computer Application Systems 55, 61, and 88A may not exceed 12 units.) 3 hours lecture, 3 hours laboratory. Transfer: CSU.

(Title and wording change)

58 INTRODUCTION TO MICROSOFT ACCESS® 3 UNITS

Introduction to database use and concepts using Microsoft Access® software...

(Add)

60 BUSINESS SOFTWARE APPLICATIONS/ GENERAL ACCOUNTING 12 UNITS

(May be repeated 1 time)

Introduction to the principles of automated and manual accounting systems and computerized spreadsheets and databases typically required for employment. This self-paced, individualized course in general accounting, systematic record keeping and business transaction analysis emphasizes using personal computers to develop a fluent understanding and hands-on application of accounting and database principles and practices and related software applications such as Excel, Access and Peachtree. (Combined credit for Computer Application Systems 60, Business 5 and/or Business 7 may not exceed 12 units.) 30 hours laboratory for 21 weeks. Transfer: CSU.

(Add)

61 BUSINESS SOFTWARE APPLICATIONS/ ADMINISTRATIVE SUPPORT 12 UNITS

(May be repeated 1 time)

Introduction to the full range of office skills acquisition focusing on developing employable word processing skills as well as proofreading, business writing, filing, keyboarding and creating computer-based presentations. A self-paced, individualized approach is used to emphasize personal computers, and to develop a fluent understanding and hands-on use of word processing and presentation software concepts and applications such as Microsoft Word and PowerPoint. (Combined credit for Computer Application Systems 55, 61, and 88A may not exceed 12 units.) 30 hours laboratory for 21 weeks. Transfer: CSU.

(Revise 72 Series)

72 OFFICE TECHNOLOGY SKILLS MODULES

Individualized, self-paced office skills modules offering development, review, and improvement of office computer skills. Modules are not sequential and may be taken in any order. Credit is earned based on competency in each module.

72A ELEMENTARY COMPUTER KEYBOARDING I 1 UNIT
(May be repeated 1 time)

Self-paced basic introduction to the computer keyboard for developing correct keyboarding skills. 3 hours laboratory. Transfer: CSU

72B ELEMENTARY COMPUTER KEYBOARDING II 1 UNIT
(May be repeated 1 time)

Self-paced computer keyboard skill development for improving keyboarding accuracy and speed. Introductory word processing techniques will also be taught, including introduction to basic word processing techniques. Strongly recommended: Computer Application Systems 72A. 3 hours laboratory. Transfer: CSU

72C COMPUTER KEYBOARDING III 1 UNIT
(May be repeated 1 time)

Self-paced computer keyboard review for improving keyboarding accuracy and speed. Strongly recommended: Computer Application Systems 72A or Computer Application Systems 72B. 3 hours laboratory. Transfer: CSU

72D INTRODUCTION TO MICROSOFT WORD 1 UNIT
(May be repeated 1 time)

Self-paced introduction to word processing using Microsoft Word. Strongly recommended: Computer Application Systems 72A or Computer Application Systems 72B. 3 hours laboratory. Transfer: CSU

72E INTRODUCTION TO MICROSOFT EXCEL 1 UNIT
(May be repeated 1 time)

Self-paced introduction to spreadsheets using Microsoft Excel. Strongly recommended: Computer Application Systems 72A or Computer Application Systems 72B. 3 hours laboratory. Transfer: CSU

72F INTRODUCTION TO MICROSOFT POWERPOINT 1 UNIT
(May be repeated 1 time)

Self-paced introduction to presentations using Microsoft PowerPoint. Strongly recommended: Computer Application Systems 72A or Computer Application Systems 72B. 3 hours laboratory. Transfer: CSU

72G INTRODUCTION TO MICROSOFT ACCESS 1 UNIT
(May be repeated 1 time)

Self-paced introduction to data bases using Microsoft Access. Strongly recommended: Computer Application Systems 72A or Computer Application Systems 72B. 3 hours laboratory. Transfer: CSU

72H PROOFREADING SKILLS 1 UNIT

Self-paced techniques of proofreading and editing business documents. Strongly recommended: Computer Application Systems 72A or Computer Application Systems 72B. 3 hours laboratory. Transfer: CSU

72I FILING AND RECORDS MANAGEMENT 1 UNIT

Self-paced theory and practice of alphabetic, numeric, geographic, and subject filing. 3 hours laboratory. Transfer: CSU

72J 10-KEY 1 UNIT
(May be repeated 1 time)
 Self-paced ten-key course using the computer numeric keypad. 3 hours laboratory. Transfer: CSU

72K BUSINESS ENGLISH SKILLS I 1 UNIT
 Self-paced business English course focusing on English fundamentals as applied to business documents. 3 hours laboratory. Transfer: CSU

72L BUSINESS ENGLISH SKILLS II 1 UNIT
 Continuation of self-paced business English course focusing on English fundamentals as applied to business documents. Strongly recommended: Computer Application Systems 72K. 3 hours laboratory. Transfer: CSU

72M INTRODUCTION TO COMPUTING 1 UNIT
 Introduction to computing concepts through the use of videos, animations, and hands-on activities. 3 hours laboratory. Transfer: CSU

72N INTRODUCTION TO THE INTERNET 1 UNIT
(May be repeated 1 time)
 Basic introduction to learning the internet through the use of videos, animations, and hands-on activities. 3 hours laboratory. Transfer: CSU

(Add credit restriction)

88A MICROSOFT WORD 1 3 UNITS
 ...(Combined credit for Computer Application Systems 55, 61, and 88A may not exceed 12 units.) 2 hours lecture, 2 hours laboratory. Transfer: CSU.

(Add)

100 ADAPTED COMPUTER KEYBOARDING 3 UNITS
(May be repeated 3 times)
 Introduction to correct keyboarding techniques and familiarity with the entire computer keyboard, including the number pad with emphasis on adaptive, one handed, and ergonomic keyboarding skills. This course is designed for students with disabilities. 2 hours lecture, 3 hours laboratory.

(Add)

101 ADAPTED WORD PROCESSING 3 UNITS
(May be repeated 3 times)
 Individualized adapted basic word processing techniques using specialized keyboarding commands, accessibility options, adapted keyboard and mouse hardware and software to produce letters, memos, reports, tables, and other documents. This course is designed for students with disabilities. 2 hours lecture, 3 hours laboratory.

(Add)

102 INTRODUCTION TO ASSISTIVE TECHNOLOGY 1-3 UNITS
(May be repeated 3 times)
 Instructor led self-paced lab course in assistive technology using screen reader, scan and read, speech recognition, and screen enlargement software programs. Designed for students with disabilities, based on their individual needs. 3-9 hours laboratory.

(Add)

103 ASSISTIVE TECHNOLOGY LABORATORY 1 UNIT
(May be repeated 3 times)
 Support and individualized instruction in access technology use and adaptive strategies while working on assignments and research projects. Major emphasis on the Personal Computer and its practical use. Designed for students with disabilities. 3 hours laboratory.

(Add)

500 COMPUTER APPLICATION SYSTEMS SUPPLEMENTAL INSTRUCTION LABORATORY 0 UNITS
 Provides supervised supplemental instruction in skills related to mastery of concepts presented in Computer Applications courses linked to supplemental instruction laboratory. Corequisite: Computer Applications Systems 8, Computer Application Systems 50, Computer Application Systems 54A, 54B, 55, 70, 80, 82, 88A, 88B, or equivalent. 1-10 hours laboratory.

CHANGES TO PAGE 57 & 58

COMPUTER SCIENCE (CSCI)

**COMPUTER SCIENCE (GENERAL)
 ASSOCIATE IN ARTS OR
 ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR FALL SPRING
(Semester change from Spring to Fall)
 Computer Science 91, *et al.* 2

(Remove footnote from)
 Computer Science 14 (*If a student...)

(Replace Sophomore Year as follows:)
 SOPHOMORE YEAR FALL SPRING
 Computer Science 15 (Object-Oriented Programming Methods in C++) 4
 Computer Science 19A (Object-Oriented Programming Methods in Java) 4
 Electives** 8
Total 31-33

**May be selected from the following:
 Computer Science 12 (Advanced Visual Basic Programming) 2 units
 Computer Science 13 (Introduction to Microsoft C# Programming) 4 units
 Computer Science 18A (C Programming in the UNIX/Linux Environment) 2 units
 Computer Science 19B (Java Programming II) 4 units
 Computer Science 20 (Introduction to Data Structures in C++) 4 units
 Computer Science 20J (Introduction to Data Structures Using Java) 4 units
 Computer Science 21 (Computer Organization and Assembly Language Programming) 4 units
 Computer Science 27A (Introduction to MFC Programming) 2 units

- Computer Science 40A (Introduction to the Oracle Database) 2 units*
- Computer Science 40B (PL/SQL Programming in the Oracle Database) 2 units*
- Computer Science 40C (Developer 2000 in the Oracle Database) 2 units*
- Computer Science 40D (Introduction to Oracle Database Administration) 2 units*
- Computer Science 42 (UNIX Tools, Shell Programming and System Administration Concepts) 2 units*
- Computer Science 44A (Perl Programming I) 2 units*
- Computer Science 47A (Microsoft Access Database) 2 units*
- Computer Science 47B (Visual Basic for Applications in Excel, Word and Access) 2 units*
- Computer Science 47C (Transact-SQL in the SQL Server Database) 2 units*
- Computer Science 47D (SQL server Database Administration) 2 units*
- Computer Science 92 (Introduction to Dynamic Hypertext Markup Language (DHTML)) 2 units*
- Computer Science 93 (Web Page Programming Using Microsoft VBScript/ ActiveX/ ASP) 2 units*
- Computer Science 94 (XML and XLS for the Web) 2 units*

**COMPUTER SCIENCE—
EMPHASIS IN MATHEMATICS
ASSOCIATE IN ARTS OR
ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR	FALL	SPRING
(Remove footnote from)		
Computer Science 14 (*If a student...)		
(Delete)		
Computer Science 15 (Object-Oriented Programming Methods in C++)		4
(Semester change from Fall to Spring)		
Computer Science 41 (Introduction to UNIX)		2
(Replace Sophomore Year as follows:)		
SOPHOMORE YEAR	FALL	SPRING
Computer Science 15 (Object-Oriented Programming Methods in C++) or Computer Science 19A (Object-Oriented Programming Methods in Java)*		4
Computer Science 20 (Introduction to Data Structures in C++) or Computer Science 20J (Introduction to Data Structures Using Java)*		4
Computer Science 21 (Computer Organization and Assembly Language Programming)		4
Mathematics 6 (Elementary Linear Algebra) or Mathematics 8 (Discrete Mathematics)**		3
Total		31
General Education Courses		
For specific General Education courses refer to catalog section on Graduation Requirements.		
Total minimum units required		60

*Computer Science 15/20 (Object-Oriented Programming Methods in C++/Introduction to Data Structures in C++) and Computer Science 19A/20J (Object-Oriented Programming Methods in Java/Introduction to Data Structures Using Java) are sequences, taught in C++ and Java respectively. If you opt for the C++ sequence, you must take Computer Science 15 (Object-Oriented Programming Methods in C++) followed by Computer Science 20 (Introduction to Data Structures in C++). If you opt for the Java sequence, then you must take Computer Science 19A (Object-Oriented Programming Methods in Java) followed by Computer Science 20J (Introduction to Data Structures Using Java). Transfer students are encouraged to take both Computer Science 15 (Object-Oriented Programming Methods in C++) and Computer Science 19A (Object-Oriented Programming Methods in Java).

**It is recommended that Computer Science majors take both Mathematics 6 (Elementary Linear Algebra) and Mathematics 8 (Discrete Mathematics). No Mathematics or Computer Science course may be double counted except for General Education credit.

This program is designed...

■■■■■ **APPLIES TO 2004-05 ONLY.** ■■■■■
SEE THE 2005-06 SECTION FOR REVISIONS.

**COMPUTER SCIENCE—
LINUX ADMINISTRATION AND
WEB SITE MANAGEMENT
ASSOCIATE IN ARTS OR
ASSOCIATE IN SCIENCE DEGREE
(PENDING STATE APPROVAL)**

FRESHMAN YEAR	FALL	SPRING
(Change from) Mathematics 3G		
(to) Mathematics 36		

CHANGES TO PAGE 61

**COMPUTER SCIENCE—
WEB SITE DEVELOPMENT SPECIALIST
CERTIFICATE OF ACHIEVEMENT
(PENDING STATE APPROVAL)**

CORE COURSES	FALL	SPRING
(Add course options)		
Computer Science 47A (Microsoft Access Database) or Computer Science 40A (Introduction to the Oracle Database) or Computer Application Systems 58 (Introduction to Microsoft Access®)		2-3
Total		20-21

CHANGES TO PAGE 62

(Delete certificate)

COMPUTER SCIENCE—
MICROSOFT ACCESS/SQL
DATABASE SPECIALIST
CERTIFICATE OF COMPLETION

(Add)

7 INTRODUCTION TO COMPUTER
PROGRAMMING CONCEPTS 3 UNITS

Introduction to computer programming for nonscience majors and for students requiring additional preparation before taking Computer Science 10 or Computer Science 14. Hardware, system software basics, the history of computing, basic computer operations, number systems, design of algorithms, and programming constructs such as variables, expressions, input/output, decision-making, loops, functions, and parameters. 3 hours lecture, 1 hour laboratory. Transfer: CSU.

(Revise)

8 COMPUTER LITERACY 3 UNITS

(See also *Computer Application Systems 8*)

Introduction to computers including: Microsoft Windows, Microsoft Office, Multimedia, the internet, browsers, World Wide Web, an awareness of types of computer software in use including programming languages, electronic mail, computer-based careers and trends, and other computing issues in today's society. No prior computer experience necessary. Course recommended for students of any major who want to learn about computers and how to use them. Hands-on laboratory experience reinforces lecture. Strongly recommended: eligibility for Mathematics 65 or Mathematics 65A (May not receive credit if Computer Application Systems 8 has been completed.) May be offered in Distance Education delivery format. 2 hours lecture, 2 hours laboratory. Transfer: CSU, UC; AA/AS; (CAN CSCI 2)

(Advisory change)

14 INTRODUCTION TO STRUCTURED
PROGRAMMING IN C++ 4 UNITS

...Strongly recommended: Computer Science 7 (*completed with a grade of "C" or higher*)...

CHANGES TO PAGE 64

(Revise description)

41 INTRODUCTION TO UNIX 2 UNITS

...May be offered in Distance Education delivery format...

DENTAL HYGIENE (DHYG)

CHANGES TO PAGE 68

(Add)

500 SUPPLEMENTARY INSTRUCTION IN
DENTAL HYGIENE 0 UNITS

Supplemental clinical experiences in patient assessment, dental hygiene care planning, goal setting and implementation of instrumentation techniques for providing prevention-oriented dental hygiene care and non-surgical periodontal therapy. Corequisite: Dental Hygiene 71A, 71B, 81A or 81B. Variable hours laboratory.

DIGITAL MEDIA (DIGM)

CHANGES TO PAGE 69

(Add)

34A FLASH I 1¹/₂ UNITS

Introduction to Flash, Macromedia's authoring application for bringing motion, sound, and interactivity to Web pages. Creating images with Flash's vector-based drawing tools; importing and modifying images, sounds, and video clips; animating those elements; embedding the resulting animation in a Web page; optimizing animation for low-bandwidth Internet connections. 1 hour lecture, 2 hours laboratory. Transfer: CSU.

(Add)

34B FLASH II 1¹/₂ UNITS

Continuation of the content and skills introduced in Digital Media 34A (Flash I), with emphasis on using the ActionScript scripting language to add interactivity to Flash movies. Use of interface elements such as menus, button groups, sliding controls, and text-input fields to control animation, sound, and other multimedia elements. Prerequisite: Digital Media 34A (*completed with a grade of C or higher*). 1 hour lecture, 2 hours laboratory. Transfer: CSU.

(Add)

35A DREAMWEAVER I 1¹/₂ UNITS

Introduction to the basic skills required for designing and producing Web pages and multi-page Web sites, providing a foundation for eventual creation of interactive, multimedia Web sites. Hand-coding HTML and Cascading Style Sheets; using Macromedia Dreamweaver as a site design and management tool. 1 hour lecture, 2 hours laboratory. Transfer: CSU.

(Add)

35B DREAMWEAVER II 1¹/₂ UNITS

Continuation of the content and skills introduced in Digital Media 35A (Dreamweaver I), with emphasis on using Dreamweaver in collaboration with other multimedia applications (such as Photoshop, Illustrator, and Flash) to create media-rich Web sites. Devising intuitive navigation schemes; incorporating sound and motion into a Web page. Prerequisites: Digital Media 34A (*completed with a grade of C or higher*); Digital Media 35A (*completed with*

a grade of C or higher); Art 31A, Architecture 31A, Interior Design 31A or Photography 31A (completed with a grade of C or higher); Art 32A, Architecture 32A, Interior Design 32A or Photography 32A (completed with a grade of C or higher). 1 hour lecture, 2 hours laboratory. Transfer: CSU.

(Add)

500 DIGITAL MEDIA LABORATORY 0 UNITS
 Extended practice of various topics from the digital media courses. Emphasis on developing technical proficiency, software familiarity, and audio-visual literacy. Corequisite: Digital Media 34A, 34B, 35A, 35B. Variable hours laboratory.

**EARLY CHILDHOOD DEVELOPMENT
 (ECD)**

CHANGES TO PAGE 71 & 72

(Revise)

50 EARLY CHILDHOOD EDUCATION AND CARE 3 UNITS
 Historical and contemporary systems of Early Childhood group care, career opportunities, licensing requirements, personal qualifications, differing orientations to early childhood education, developmental stages of young children as related to quality programs with developmentally appropriate curriculum. 3 hours. Transfer: CSU.

(Revise)

62 CHILD, FAMILY, AND COMMUNITY 3 UNITS
 Patterns of family living in contemporary society, including the varying roles and interactions of family members; demographic, socio-cultural, racial and economic factors affecting family life; relationship of the family to early care and education and to community resources. 3 hours. Transfer: CSU.

(Revise)

63 EARLY CHILDHOOD CURRICULUM 4 UNITS
 Professional application of the principles of human growth and development in: the study of play based curriculum, the physical environment and learning experiences including program content, the use of materials, the facilitation and guidance of children's experiences based on developmentally appropriate principles, the methods used to meet children's physical, social, emotional, cognitive, and creative needs within cultural context. Prerequisite: Early Childhood Development 50 and 51 (both completed with a grade of 'C' or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU.

(Add)

500 EARLY CHILDHOOD DEVELOPMENT SUPPLEMENTAL INSTRUCTION LABORATORY 0 UNITS
 Supervised supplemental instruction in skills related to mastery of developmentally appropriate practices and principles of early childhood required by the Child Development Permit issued by the State of California. Corequisite: ECD 50, ECD 51, ECD 62, or ECD63. Variable hours laboratory.

**ELECTRONICS AND
 COMPUTER TECHNOLOGY (ELEC)**

CHANGES TO PAGE 73 & 74

**ELECTRONICS AND
 COMPUTER TECHNOLOGY
 ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR FALL SPRING
(Delete)

Electronics and Computer Technology 63A
 (Project Development I) 2

(Revise as follows)

SOPHOMORE YEAR FALL SPRING

Electronics and Computer Technology 62B
 (Circuits and Systems) 4

Electronics and Computer Technology 64B
 (Microprocessor Technology) 4

Electronics and Computer Technology 62C
 (Electronic Communication Systems) 4

Electronics and Computer Technology 63
 (Project Management) 4

Electronics and Computer Technology 64C
 (Computer Systems and Industrial
 Controls) 4

Total 40

**ELECTRONICS AND
 COMPUTER TECHNOLOGY
 CERTIFICATE OF ACHIEVEMENT**

FRESHMAN YEAR FALL SPRING
(Delete)

Electronics and Computer Technology 63A
 (Project Development I) 2

(Revise as follows)

SOPHOMORE YEAR FALL SPRING

Electronics and Computer Technology 62B
 (Circuits and Systems) 4

Electronics and Computer Technology 64B
 (Microprocessor Technology) 4

Electronics and Computer Technology 62C
 (Electronic Communication Systems) 4

Electronics and Computer Technology 63
 (Project Management) 4

Electronics and Computer Technology 64C
 (Computer Systems and Industrial
 Controls) 4

Total 40

■ ■ ■ ■ ■ APPLIES TO 2004-05 ONLY. ■ ■ ■ ■ ■
SEE THE 2005-06 SECTION FOR REVISIONS.

■ ■ ■ ■ ■
ELECTRONICS AUDIO/VIDEO
TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT

SOPHOMORE YEAR FALL SPRING

(Title change)

Electronics and Computer Technology 62B
(Circuits and Systems) 4

Electronics and Computer Technology 62C
(Electronic Communication Systems) 4

(Revise)

62A SEMICONDUCTOR DEVICES 4 UNITS

Semiconductor physics, diode and transistor fundamentals, junction devices in large and small signal applications. Field effect transistors. Transistor biasing and configuration with AC and DC load lines. Fundamentals of amplification and cascaded amplifiers. Introduction to operational amplifiers. Power supply regulation and filtering. Prerequisite: Electronics and Computer Technology 60. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

(Revise)

62B CIRCUITS AND SYSTEMS I 4 UNITS

Analysis and troubleshooting of linear and non-linear analog circuits and systems. Power supply circuits. Active filter circuits. Timers, oscillators and waveform generators. Data conversion circuits. Application of software simulation tools. Laboratory construction of actual circuits and systems with an emphasis on troubleshooting methods. Prerequisite: Electronics and Computer Technology 62A. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

(Revise title/catalog description)

62C ELECTRONIC COMMUNICATION
SYSTEMS 4 UNITS

Electronic Communication systems, including modulation techniques, receiver and transmitter circuits, antenna and wave propagation. Data communication fundamentals, Fiber optic and laser technology. Prerequisite: Electronics and Computer Technology 62B. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

(Add)

63 PROJECT MANAGEMENT 4 UNITS

(May be repeated 3 times)

Planning, tracking, and completing individual and/or group electronics prototype projects; includes sheet metal, printed circuit board layout and fabrication, connection and soldering techniques, use of hand tools, and machines in electronic fabrication. Use of computer software tools as applied to project management and electronic fabrication. Prerequisite: Electronics and Computer Technology 61. Strongly recommended:

Electronics and Computer Technology 62A. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

(Delete)

63A PROJECT DEVELOPMENT I 2 UNITS

(Delete)

63B PROJECT DEVELOPMENT II 2 UNITS

(Revise)

64A DIGITAL ELECTRONICS 4 UNITS

...May be offered in Distance education delivery format...

(Revise)

64B MICROPROCESSOR TECHNOLOGY 4 UNITS

...May be offered in Distance education delivery format...

(Revise title/catalog description)

64C COMPUTER SYSTEMS AND INDUSTRIAL
CONTROLS 4 UNITS

Computer systems architecture, peripheral devices, embedded systems, networking technology fundamentals. Industrial Control Electronics including Programmable Logic Controls. Troubleshooting techniques. Prerequisite: Electronics and Computer Technology 64B. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

ENGLISH (ENGL)

CHANGES TO PAGE 79

(Revise)

4 CRITICAL THINKING AND
WRITING ABOUT LITERATURE 3 UNITS

Develops critical thinking, reading, and writing skills as they apply to the analysis of fiction (short stories and novel), poetry and drama. Prerequisite: English 1A (*completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: A3; IGETC: Area 1B group B; AA/AS.

CHANGES TO PAGE 80

(Add)

34 INTERNATIONAL POETRY 3 UNITS

Introduction to classical, modern and contemporary international poetries in their original languages and in translations. Examination of modes of reading and writing poetry in relation to students' cultural and language backgrounds. 3 hours. Transfer: CSU.

CHANGES TO PAGE 81

(Add)

500 ENGLISH 0 UNITS

Supplemental reading, writing, and critical thinking experiences intended to develop ability to identify and apply concepts and skills used to read and write college-level prose. Emphasis on

developing an in-depth understanding of concepts and assignments in the corresponding corequisite class. Open-entry/open-exit. Corequisite: English 101A, 101B, 102, 1A, 4, 7. Variable hours laboratory.

CHANGES TO PAGE 82

ENGLISH AS A SECOND LANGUAGE (ESL)

(Revise units and description)

113 INTRODUCTION TO COMPUTER ASSISTED LANGUAGE LEARNING 1 UNIT
Basic computer vocabulary and operating skills to enhance acquisition of English vocabulary, reading and writing. 3 hours laboratory.

(Add)

500 ESL 0 UNITS
ESL reading, writing, and grammar practice intended to develop ability to identify and apply concepts and skills used to read and write college-level prose. Emphasis on developing an in-depth understanding of concepts and assignments in the corresponding corequisite class. Open-entry/open-exit. Corequisite: ESL 110A, 110B, 110C, 110D. Variable hours laboratory.

ETHNIC STUDIES

**ETHNIC STUDIES
TRANSFER PROGRAM
AND ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR FALL SPRING

(Revise Title)

History 22 (Mexican American History in the Development of U.S. History from Pre-Columbian Period to the Present) 3

FIRE TECHNOLOGY (FT)

CHANGES TO PAGE 83 & 84

**FIRE TECHNOLOGY
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR FALL SPRING

(Revise Title)

Health 61 (First Responder) 2^{1/2}

(Revise Title)

Fire Technology 91B (First Responder–Operational Level) 1^{1/2}

(Revise Title)

Fire Technology 91C (I-200 Basic ICS (Incident Command System)) 1^{1/2}

(Revise Title)

Health 81 (Emergency Medical Technician Basic) 6^{1/2}

**FIRE PREVENTION INSPECTOR
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR FALL SPRING

(Change from)

Fire Technology 14A (Fire Investigation 1A)

(To)

Fire Technology 74A (Fire Investigation 1A)

SOPHOMORE YEAR FALL SPRING

(Add)

Administration of Justice 90
(Reserve Module A: Arrest and Control) 4

(Revise Title)

Fire Technology 72 (Fire Management) 2

(Revise Title)

Fire Technology 91B (First Responder–Operational Level) 1^{1/2}

(Revise Title)

Fire Technology 91C (I-200 Basic ICS (Incident Command System)) 1^{1/2}

**FIRE TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT**

FRESHMAN YEAR FALL SPRING

(Revise Title)

Health 61 (First Responder) 2^{1/2}

(Revise Title)

Fire Technology 91C (I-200 Basic ICS (Incident Command System)) 1^{1/2}

(Revise Title)

Health 81 (Emergency Medical Technician Basic) 6^{1/2}

**FIRE PREVENTION INSPECTOR
CERTIFICATE OF ACHIEVEMENT**

FRESHMAN YEAR FALL SPRING

(Change from Fall to Spring)

Fire Technology 52 (Fire Safety and Public Education) 3

Fire Technology 53 (Fire Behavior and Combustion) 3

(Delete)

Fire Technology 64A (Hazardous Materials I) 2

(Delete)

Inspection 80B (Construction Inspection and Housing Code) 2

(Delete)

Inspection 82A (Building Codes I) 3

(Add)

Fire Technology 74A (Fire Investigation 1A) 2

SOPHOMORE YEAR FALL SPRING

(Add)Administration of Justice 90
(Reserve Module A: Arrest and Control) 4**(Delete)**Industrial Technology 74 (Measurements
and Calculations) 3**(Revise Title)**

Fire Technology 72 (Fire Management) 2

(Revise Title)Fire Technology 91B (First Responder–
Operational Level) 1½**(Revise Title)**Fire Technology 91C (I-200 Basic ICS
(Incident Command System)) 1½**Total** 42**CHANGES TO PAGE 85****(Revise Title)**

72 FIRE MANAGEMENT I 2 UNITS

(New course number—was 74)

74A FIRE INVESTIGATION 1A 2 UNITS

(Revise Title)

91A WILDLAND FIREFIGHTING 2 UNITS

FOREIGN LANGUAGES**CHANGES TO PAGE 88****SPANISH****ASSOCIATE IN ARTS DEGREE**

SOPHOMORE YEAR FALL SPRING

(Revise Title)History 22 (Mexican American History in
the Development of U.S. History from
Pre-Columbian Period to the Present) 3**GEOGRAPHY (GEOG)****CHANGES TO PAGE 89****(Add)**

DEGREE:

AA—GEOGRAPHY

Chabot College offers an Associate in Arts Degree in Geography to introduce students to principles, theory, and applied methods of spatial analysis in studying both the natural and human environment. The program in Geography is designed to develop

the student's awareness of human-environment relationships and changes in the landscape induced by human activities. Geographers pursue careers in many diverse fields, including environmental conservation, land use planning, global change research, teaching, and applications of geographic information systems.

GEOGRAPHY**ASSOCIATE IN ARTS DEGREE****PENDING STATE APPROVAL**

FRESHMAN YEAR FALL SPRING

Geography 1 (Introduction to Physical
Geography) 3Geography 1L (Introduction to Physical
Geography Laboratory) 1

Geography 5 (World Regional Geography) 3

SOPHOMORE YEAR FALL SPRING

Geography 2 (Cultural Geography) 3

Geography 8 (Introduction to Weather and
Climate) 3Geography 20 (Introduction to Geographic
Information Systems) 3

Elective 3-4

Total 19-20**General Education Courses**

For specific General Education courses refer to catalog section on General Requirements

Total minimum units required 60

*Select from the following for an additional 3-4 units

*Anthropology 3 (Social and Cultural Anthropology) 3 units**Economics 1 (Principles of Microeconomics) 3 units**Geography 3 (Economic Geography) 3 units**Geography 11 (Geography of the San Francisco Bay Area) 3 units**Geography 12 (Geography of California) 3 units**Geology 1A (Physical Geology) 4 units**Geology 10 (Introduction to Geology) 3 units**Geology 12 (Introduction to Oceanography) 3 units***CHANGES TO PAGE 90****(Title change; removal of advisory statement)**8 INTRODUCTION TO WEATHER AND
CLIMATE 3 UNITS

...Field trips and observational activities may be included.
3 hours...

HEALTH (HLTH)**CHANGES TO PAGE 92****(Revise description)**

60 RESPONDING TO EMERGENCIES 1 UNIT

...Successful completion of the knowledge and skills tests qualifies for a National Safety Council First Aid and Adult CPR card...

parties. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

(Revised description)

25 AMERICAN INDIAN HISTORY AND CULTURE 3 UNITS

Historical survey of American Indians in the United States from earliest times to the present day. Emphasis on Indian societies and cultures, Indian relations with predominant cultures, Indian movement for self-preservation, and historical background necessary to understand contemporary problems of the Indians. Emphasis on the Indians of California and the West. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

(Title change and revised description)

27 U.S. WOMEN'S HISTORY 3 UNITS

A survey of United States women's history from its indigenous origins through the present. Emphasizes the interaction and experiences of diverse racial/ethnic groups that include at least three of the following groups: African-Americans, Chicana/Latina Americans, Asian Americans, European Americans, Native Americans, and Middle Eastern Americans. Special areas of focus include women's role in the political, economic, social, and geographic development of the United States. This course includes an analysis of the U.S. Constitution and pertinent amendments as a living document. California State Constitution is compared to the U.S. Constitution with regard to women's rights. 3 hours. Transfer: CSU, UC; CSU/GE: D4, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

CHANGES TO PAGE 97**(Revise transfer)**

30 RELIGION IN CONTEMPORARY CULTURE 3 UNITS

...Transfer: CSU; CSU/GE: C2; IGETC: Area 3B; AA/AS.

CHANGES TO PAGE 98**(Add)****INDEPENDENT STUDY**

INDEPENDENT STUDY 1/2 -2 UNITS

Independent study may be contracted through an instructor for research, field experience or skill development. Students must make arrangements with the instructor, as well as complete the Independent Study Contract (available from instructors or academic departments). The instructor monitors academic progress as the student completes the coursework within the guidelines of the agreement. Independent study may be offered under any subject area contained in the Catalog using the number 29.

INTERNATIONAL STUDIES**CHANGES TO PAGE 100**

INTERNATIONAL STUDIES
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

(Revised title)

- (2) *Latin American Studies Options: History 22 (Mexican American History in the Development of U.S. History from Pre-Columbian Period to the Present)...*

CHANGES TO PAGE 102**LIBRARY STUDIES (LIBS)****(Rubric change from)**

LIBRARY STUDIES (LIBR)

(To)

LIBRARY STUDIES (LIBS)

MASS COMMUNICATIONS (MCOM)**CHANGES TO PAGE 106****(Add)**

500 NEWSPAPER PRODUCTION 0 UNITS

Extended study of various aspects of newspaper production, including design and layout, computer applications, digital photography, advertising, and news, feature, editorial, and headline writing. Corequisite: Mass Communications 14 or 15. Variable hours laboratory.

MATHEMATICS (MATH)**(Revised description)**

2 CALCULUS II 5 UNITS

Continuation of differential and integral calculus, including transcendental, inverse, and hyperbolic functions. Techniques of integration, parametric equations, polar coordinates, sequences, power series and Taylor series. Introduction to three-dimensional coordinate system and operations with vectors. Primarily for mathematics, physical science, and engineering majors. Prerequisite: Mathematics 1 (*completed with a grade of "C" or higher*). 5 hours lecture, 0 – 1 hours laboratory. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS, (CAN MATH 20); with MATH 1: (CAN MATH SEQ B); with MATH 1 and MATH 3: (CAN MATH SEQ C).

(Revised description)

4 ELEMENTARY DIFFERENTIAL EQUATIONS 3 UNITS
Introduction to elementary differential equations...

CHANGES TO PAGE 107

(Revised description)

12 INTRODUCTION TO LOGIC 3 UNITS
.. includes deductive validity, relation of ordinary languages to symbolic logic, distinction between inductive and deductive arguments, relation of truth to validity...

(Revised description)

20W PRE-CALCULUS WORKSHOP 1/4 -1/2 UNIT
Laboratory, study group, collaborative workshop or computer laboratory time for Pre-calculus Mathematics...

Music

CHANGES TO PAGE 111

(Title changes)

MUSIC
ASSOCIATE IN ARTS DEGREE

	FALL	SPRING
Music 21A (Piano I)	1	
Music 21B (Piano II)		1

***Music Option**

Music 23A (Voice I)
Music 23B (Voice II)

****Performance Option**

Music 12 (Symphonic Band)
Music 14 (Jazz Ensemble)
Music 15 (Jazz Band)

CHANGES TO PAGE 112 & 113

MUSIC
APPLIED (MUSA)

(Revised title, description)

21A PIANO I 1 UNIT
(May be repeated 3 times)

Beginning piano. Contemporary and classic approaches to playing piano using basic scales, chords and music notation. Prerequisite: Music 6 *(completed with a grade of "C" or higher)* or equivalent. 4 hours laboratory. Transfer: CSU, UC.

(Revised title, description)

21B PIANO II 1 UNIT
(May be repeated 3 times)

Development of skills in piano performance, notation, literature. Emphasis on further development of technique and performance. Prerequisite: Music 21A *(completed with a grade of "C" or higher)* or equivalent. 4 hours laboratory. Transfer: CSU, UC.

(Revised title, description, advisory)

22A JAZZ PIANO I 1 UNIT
(May be repeated 3 times)

Voicings, chords, and guidelines for improvisation in the contemporary styles of the jazz pianist. Post bop-era, through modern to avant-garde piano playing in the jazz idiom. Strongly recommended: Music 6. 4 hours laboratory. Transfer: CSU, UC.

(Add)

22B JAZZ PIANO II 1 UNIT
(May be repeated 3 times)

Development of skills in jazz piano performance, notation, literature. Emphasis on further development of technique and performance. Prerequisite: Music 22A *(completed with a grade of "C" or higher)* or equivalent. 4 hours laboratory. Transfer: CSU, UC.

(Revised title, description)

23A VOICE I 1 UNIT
(May be repeated 3 times)

Group singing with an emphasis on solo performance, tone production, breathing, diction, sight singing and interpretation of vocal literature. Strongly recommended: Music 6. 4 hours laboratory. Transfer: CSU, UC.

(Revised title, description)

23B VOICE II 1 UNIT
(May be repeated 3 times)

Development of skills in vocal performance, notation, literature. Emphasis on further development of technique and performance. Prerequisite: Music 23A *(completed with a grade of "C" or higher)* or equivalent. 4 hours laboratory. Transfer: CSU, UC.

(Add)

500 MUSIC STUDIO 0 UNITS

Extended study of various topics from the Applied Music and Performance courses. Emphasis on developing playing and performance skills. Corequisite: Music 12, 15, 20, 21A, 21B, 22, 23A, 23B, 30, 31, 32, 33, 34, 44, or 45. Variable hours laboratory

NURSING (NURS)

CHANGES TO PAGE 113 & 114

NURSING
ASSOCIATE IN ARTS DEGREE

	FALL	SPRING
(Semester changes from Fall to Spring)		
Nursing 60B (Adult Health II)		6
Nursing 60C (Adult Health III)		3 1/2
Nursing 66 (Advanced Clinical Topics)		1/2
Nursing 73* (Intravenous Therapy)		1
Sociology **		3

■ ■ ■ ■ ■ APPLIES TO 2004-05 ONLY. ■ ■ ■ ■ ■
SEE THE 2005-06 SECTION FOR REVISIONS.
■ ■ ■ ■ ■

(Revised)**SPECIAL APPLICATION REQUIRED:**

Prerequisites: for admission to this program include: (1) completion of special application; (2) 2.7 overall college gradepoint average; (3) completion of Human Anatomy 1, Human Physiology 1, and Microbiology 1 (each of which includes a lab). Student must have received a "B" or higher in at least one of the science prerequisites and a "C" or higher in the remaining two.

Students who have completed two of the three prerequisite science courses prior to January 1 may submit an application prior to February 1. However, the following stipulations are in effect:

a. Evidence of current enrollment in the third prerequisite science course must be submitted with the application;

b. The third course must be verified as having been completed by the end of Spring Semester with a grade of "C" or higher and must meet the grade criteria for acceptance into the nursing program as outlined in item 3 of **prerequisites**. Selection of students is made by random selection of those who are qualified and is limited to the number of spaces available in the program.

Advanced standing status may be granted to students who have previously completed any portion of the defined nursing curriculum or its equivalent as determined by the Counselor/Coordinator for Applied Health or the Nursing Program Coordinator.

■ ■ ■ ■ ■ CHANGES TO PAGES 115 & 116 ■ ■ ■ ■ ■

(Revision)

55 FUNDAMENTALS OF NURSING PRACTICE 9 UNITS
...Theory may be offered in Distance Education delivery format. 4 hours lecture...

(Revision)

56 ESSENTIALS OF NURSING CARE RELATED
TO HUMAN GROWTH AND DEVELOPMENT 1/2 UNIT
...May be offered in Distance Education delivery format. 1 hour...

(Revision)

57 LEGAL-ETHICAL ISSUES IN NURSING 1/2 UNIT
...May be offered in Distance Education delivery format. 1 hour...

(Revision)

58 NURSING CARE FOR PATIENTS WITH
BLOOD-BORNE INFECTIOUS DISEASE 1/2 UNIT
...May be offered in Distance Education delivery format. Lecture:
9 hours...

(Revision)

59 NURSING CARE OF THE
CHILDBEARING FAMILY 8 1/2 UNITS
...Theory may be offered in Distance Education delivery format. Lecture: 4 hours...

(Revision)

60A ADULT HEALTH I-BIOPHYSICAL
PERSPECTIVES IN THE CARE OF THE
ADULT CLIENT IN THE HOSPITAL AND
THE COMMUNITY 8 UNITS
...Theory may be offered in Distance Education delivery format. Lecture: 4 hours...

(Revision)

60B ADULT HEALTH II 6 UNITS
...Theory may be offered in Distance Education delivery format. 4 hours lecture,...

(Revision)

60C ADULT HEALTH III 3 1/2 UNITS
...Prerequisites: Physiology 2 and Physiology 2L (or equivalent) and all required nursing courses (or equivalent) in semesters one through three, and concurrent or prior enrollment in Nursing 73 (completed with a grade of "C" or "CR" or higher). Theory may be offered in Distance Education delivery format. 2 hours lecture,...

(Revision)

61 CLINICAL NUTRITION 1 1/2 UNITS
...May be offered in Distance Education delivery format. 1 1/2 hours.
Transfer: CSU.

(Revision)

64 PHARMACOLOGICAL BASIS OF
THERAPEUTICS 2 1/2 UNITS
Introduction to the principles of drug therapy, clinical pharmacology, and toxicology; therapeutic agents and dosage forms in current use with the application of the nursing process. Prerequisites: Completion of Nursing 55, 56, 61, 69 and 74, (or the equivalent) with a "C" or higher. Satisfactory completion of or concurrent enrollment in Nursing 57, 58, 64, and 75 or possession of a valid California LVN license. May be offered in Distance Education delivery format. 2 1/2 hours. Transfer: CSU.

(Revision)

66 ADVANCED CLINICAL TOPICS 1/2 UNIT
...May be offered in Distance Education delivery format.
1 1/2 hours, 6 weeks. Transfer: CSU.

APPLIES TO 2004-05 ONLY.
SEE THE 2005-06 SECTION FOR REVISIONS.

(Revision)

69 GERONTOLOGICAL NURSING 1 UNIT
 Nursing care of the aging client. Physical and psychosocial changes which occur with the aging process. Focus on successful adaptation to aging with emphasis on maintaining or regaining optimal health. Strategies for caring for the client who is coping with altered life styles as a result of problems associated with aging. Theories of aging and cultural influences on the aging process. Corequisite: Nursing 55, 61, 74 (or satisfactory completion of equivalent) or possession of valid California LVN license. May be offered in Distance Education delivery format. 1 hour. Transfer: CSU.

(Add transfer)

70 NURSING THEORY: LVN-RN TRANSITION 1 1/2 UNITS
 ...Transfer CSU.

(Revision)

73 INTRAVENOUS THERAPY 1 UNIT
 ...May be offered in Distance Education delivery format. 2 hours...

(Revision)

74 THE NURSING CARE PLAN 1 UNIT
 Introduction to the components of the nursing process: assessment, nursing diagnosis, planning, implementation, and evaluation with clinical applications of Roy's adaptation framework for nursing as modified by Chabot College nursing facility. Prerequisite: concurrent enrollment in nursing program. May be offered in Distance Education delivery format. 2 hours, 9 weeks. Transfer: CSU.

(Revision)

75 FLUID AND ELECTROLYTES 1 UNIT
 ...May be offered in Distance Education delivery format. 1 hour.

NUTRITION (NUTR)

(Title change)

1 NUTRITION 3 UNITS

(Add)

57 NUTRITION FOR FITNESS AND FAT LOSS 3 UNITS
 Study the role that nutrition and activity play in developing fitness and lowering body fat. Major concepts of fitness and nutrition. Assessment of current fitness level, designing a personal fitness and nutritional plan. May be offered in Distance Education delivery format. (May not receive credit if Physical Education 57 has been completed.) 3 hours. Transfer: CSU; CSU/GE: E.

(Add)

58 NUTRITION FOR SPORTS AND HUMAN PERFORMANCE 3 UNITS

An investigation into the role nutrition plays in sports and human achievement. Determination of optimum hydration and nutrient intake in relation to activity. May be offered in Distance Education delivery format. (May not receive credit if Physical Education 58 has been completed.) 3 hours. Transfer: CSU; CSU/GE: E.

PHOTOGRAPHY (PHOT)

CHANGES TO PAGE 118

(Add)

500 PHOTOGRAPHY STUDIO 0 UNITS

Extended practice in the photography studio to enable students to increase their skills in both darkroom and pictorial techniques. Corequisite: Photography 50, 51, 60, 61, 62, 64A, 65., Variable units laboratory.

PHYSICAL EDUCATION (PHED)

CHANGES TO PAGE 120

COACHING

CERTIFICATE OF ACHIEVEMENT

FALL SPRING

(Semester changes from Fall to Spring)

Physical Education 8 (Sport in Society) or
 Physical Education 15 (Peak Performance
 through Mental Training) 3

(Add Option)

Physical Education 22 (Health & Fitness
 Assessments) or
 Physical Education 28 (Components
 of Physical Fitness-the Human Body) or
 Physical Education 60 (Sports
 Management) 3

(Add units)

Physical Education 23 (Sports Officiating) or
 Physical Education 16 (College Success
 for Athletes) 1-2

Total 21 1/2-23

FITNESS INSTRUCTOR
CERTIFICATE OF ACHIEVEMENT

FALL SPRING

(Title change)

Nutrition 1 (Nutrition) 3

SPORTS INJURY CARE
CERTIFICATE OF ACHIEVEMENT

FALL SPRING

(Add Option)

Nutrition 1 (Nutrition) or
 Nutrition 58 (Nutrition for Sports and
 Athletic Performance) or
 Physical Education 58 (Nutrition for
 Sports and Athletic Performance) 3

CHANGES TO PAGE 121

COACHING
CERTIFICATE OF COMPLETION

FALL SPRING

(Add Option)
 Physical Education 22 (Health & Fitness
 Assessments) or
 Physical Education 28 (Components
 of Physical Fitness-the Human Body) or
 Physical Education 60 (Sports Management) 3

(Delete)
 Physical Education 6 (Physical Fitness
 Assessments) 1/2

FITNESS INSTRUCTOR
CERTIFICATE OF COMPLETION

FALL

SPRING

(Title change)

Nutrition 1 (Nutrition) 3

CHANGES TO PAGE 123 & 124

(Add)

28L COMPONENTS OF PHYSICAL
 FITNESS - LABORATORY 1 UNIT

Implementation of the fundamentals of physical fitness and basic strength training principles as an intern in the Chabot College Fitness and/or Chabot Strength Training Center. Prerequisite or Corequisite: Physical Education 28. 3 hours laboratory.

(Add)

57 NUTRITION FOR FITNESS AND FAT LOSS 3 UNITS
 Study the role that nutrition and activity play in developing fitness and lowering body fat. Major concepts of fitness and nutrition. Assessment of current fitness level, designing a personal fitness and nutritional plan. May be offered in Distance Education delivery format. (May not receive credit if Nutrition 57 has been completed.) 3 hours. Transfer: CSU; CSU/GE: E.

(Add)

58 NUTRITION FOR SPORTS AND HUMAN
 PERFORMANCE 3 UNITS

An investigation into the role nutrition plays in sports and human achievement. Determination of optimum hydration and nutrient intake in relation to activity. May be offered in Distance Education delivery format. (May not receive credit if Nutrition 58 has been completed.) 3 hours. Transfer: CSU; CSU/GE: E.

(Add)

60 SPORTS MANAGEMENT 3 UNITS

Introduction into the field of sports management. Career opportunities, human resource management, leadership, strategic planning, teamwork, ethics and values, marketing and advertising, finance, managing facilities, sports and the law, economics of sport and community impact. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU.

(Add)

500 ATHLETIC TRAINING 0 UNITS

Pre-season medical screening. Injury prevention measures such as taping, wrapping and athlete education. Injury treatments including ultrasound, electrical muscle stimulation and therapeutic exercise implementation and supervision. Variable hours laboratory. Corequisite: Physical Education 30-50.

POLITICAL SCIENCE (POLI)

CHANGES TO PAGE 125

(Revise title and description)

1 INTRODUCTION TO AMERICAN
 GOVERNMENT 3 UNITS

Introduction to the historical development of American political ideals and institutions including the Federal and California Constitutions, civil liberties, civil rights, citizenship duties, political parties, participation and elections...

(Add)

2 INTRODUCTION TO AMERICAN AND
 CALIFORNIA POLITICS 3 UNITS

Introduction to issues in American and California politics including education, environment, welfare, and health care policy. Special emphasis on California state and local government issues, interpretation of public opinion data, election polls and public policy statistics. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU; CSU/GE: D8.

CHANGES TO PAGE 126

(Delete)

45 SELECTED TOPICS IN POLITICAL SCIENCE 2-3 UNITS

PSYCHOLOGY (PSYC)

(Delete)

4 BRAIN, MIND, AND BEHAVIOR 3 UNITS

CHANGES TO PAGES 127-129

PSYCHOLOGY COUNSELING (PSCN)

(Add)

DEGREE:

AA — PSYCHOLOGY-COUNSELING-HUMAN SERVICES (PENDING STATE APPROVAL)

AS — PSYCHOLOGY-COUNSELING-HUMAN SERVICES (PENDING STATE APPROVAL)

**PSYCHOLOGY-COUNSELING-HUMAN SERVICES
ASSOCIATE IN ARTS OR
ASSOCIATE IN SCIENCE DEGREE
(PENDING STATE APPROVAL)**

This degree has been designed to provide students an introduction to social and/or psychological theory, multicultural theory, and Psychology-Counseling skills needed to work as a service provider in a social service setting. Students will conduct self-assessment and self-reflection components as part of their skill sets. A self-assessment needs to be made in relationship to the culturally diverse community and world in which we currently live but also to evaluate the service provider's internalized values which may affect the provision of services in a non-judgmental process. Students completing this degree will investigate sociological and/or psychological theory, a variety of multicultural issues and concepts which can affect social service delivery, evaluate themselves within the context of the diverse culture, further their inquiry into a cultural area of personal interest, complete a course specifically targeted to Psychology-Counseling issues/skills as they relate to a multicultural community, and study case management skills and techniques related to Human Services.

FRESHMAN YEAR FALL SPRING

Psychology 1 (General Psychology) or
Sociology 1 (Principles of Sociology) 3
Psychology-Counseling 13 (Multicultural
Issues in Contemporary America) 3
Self-Assessment/Self-Reflection Course(s)* ... 3
Option Course** 3

SOPHOMORE YEAR FALL SPRING
Psychology 2 (Introduction to Psychological
Methodology) or
Psychology 3 (Social Psychology) or
Sociology 2 (Social Problems) 3
Psychology-Counseling 11 (Interpersonal
Relationships) 2
Psychology-Counseling 4 (Multiethnic/
Cultural Communication) or
Speech 11 (Intercultural
Communication) 3
Psychology-Counseling 1 (Introduction
to Psychology-Counseling in a
Multicultural Environment) or
Psychology 7 (Introduction to
Counseling Theory and Skills) 3
Psychology-Counseling 2 (Introduction to
Case Management for Human Services) 3
Total 26

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements
Total minimum units required 60

**Select a total of 3 units from the following:*

*Psychology-Counseling 10 (Career and Educational
Planning) 2 units*
*Psychology-Counseling 10.A (Career Assessment
Through Testing) 1 unit*
Psychology-Counseling 12 (Self-Esteem for Success) 2 units
Psychology-Counseling 15 (College Study Skills) 2 units
*Psychology-Counseling 16 (College and the
Re-entry Woman) 3 units*
Psychology-Counseling 17 (Intercultural Studies) 2 units
*Psychology-Counseling 26 (College Success and
the Chicano Experience) 1 unit*
Psychology-Counseling 36 (Women in Transition) 1 unit

***Select a total of 3 units from the following options:*

Anthropology 3 (Social and Cultural Anthropology) 3 units
*Anthropology 5 (Cultures of the U.S.:
Anthropological Perspectives on Race, Class,
Gender and Ethnicity) 3 units*
*Early Childhood Development 60 (Teaching Special
Needs Infants and Preschoolers) 3 units*
English 21 (The Evolution of the Black Writer) 3 units
*English 22 (Mexican American/Latino Literature
of the U.S.) 3 units*
English 32 (U.S. Women's Literature) 3 units
English 38 (Survey of Modern British Literature) 3 units
Foreign Language 1A (Beginning Foreign Language) 3 units
Health 4 (Women and Health) 3 units
Health 8 (Human Sexuality) 3 units
Music 5 (American Cultures in Music) 3 units
Psychology 6 (Abnormal Psychology) 3 units
Psychology 8 (Human Sexuality) 3 units
Psychology 12 (Life-Span Psychology) 3 units

<i>Psychology 18 (Psychology of the African American Experience)</i>	3 units
<i>Sign Language 64 (ASL Beginning Sign Language)</i>	3 units
<i>Sign Language 65 (ASL Intermediate Sign Language)</i>	3 units
<i>Sociology 3 (American Cultural and Racial Minorities)</i>	3 units
<i>Sociology 4 (Marriage and Family Relations)</i>	3 units
<i>Sociology 8 (Human Sexuality)</i>	3 units
<i>Sociology 10 (Introduction to Asian American Studies)</i>	3 units
<i>Sociology 30 (Social Gerontology)</i>	3 units
<i>Sociology 31 (Dependency in Old Age)</i>	3 units
<i>Sociology 32 (Social Policy, Programs and Services for Elders)</i>	3 units
<i>Sociology 33 (Sociobiology of Aging)</i>	3 units

**MULTICULTURAL AWARENESS/RELATIONS
FOR THE SERVICE PROVIDER
CERTIFICATE OF COMPLETION**

(Revise title)

<i>Anthropology 5 (Cultures of the U.S.: Anthropological Perspectives on Race, Class, Gender and Ethnicity)</i>	3 units
---	---------

**MULTICULTURAL AWARENESS/
SELF-REFLECTION
CERTIFICATE OF COMPLETION**

(Revise list)

****Select a total of 5 units from the following options:**

<i>Anthropology 3 (Social and Cultural Anthropology)</i>	3 units
<i>Anthropology 5 (Cultures of the U.S.: Anthropological Perspectives on Race, Class, Gender and Ethnicity)</i>	3 units

**[Note: the list continues through Sociology 33. Remove
"**Select a total of 4 units from the following:"]**

(Add)

2	INTRODUCTION TO CASE MANAGEMENT FOR HUMAN SERVICES	3 UNITS
---	---	---------

Introduction to case management theory, models and techniques. Multicultural issues affecting case management theory. Emphasis placed on case management philosophy, ethical issues, concepts and practices. Analysis of needs, documentation and confidentiality and individualized consumer plan development. Analysis of inter-agency collaboration. Includes issues of monitoring an ongoing case management plan and maintaining consumer commitment to plan success. Designed to provide students with knowledge in case management theory implementation for Human Service, Social Work and/or Mental Health. Strongly Recommended: Psychology-Counseling 1. 3 hours. Transfer: CSU.

(Revise transfer)

4	MULTIETHNIC/MULTICULTURAL COMMUNICATION	3 UNITS
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Transfer:CSU; CSU/GE: D3; IGETC: Area 4C; AA/AS.

(Revise)

13	MULTICULTURAL ISSUES IN CONTEMPORARY AMERICA	3 UNITS
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...May be offered in Distance Education delivery format.
3 hours...

CHANGES TO PAGE 131

(Remove Program)

**RECREATION AND LEISURE
SERVICES (RECL)**

(Delete)

71L	FUNDAMENTALS OF BACKPACKING	2 UNITS
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RELIGIOUS STUDIES (RELS)

CHANGES TO PAGE 132

(Revise transfer)

30	RELIGIONS OF ASIA	3 UNITS
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...Transfer: CSU; CSU/GE: C2; IGETC: Area 3B; AA/AS.

CHANGES TO PAGE 133

(Change Rubric from SOC to SOCI)

SOCIOLOGY (SOCI)

CHANGES TO PAGE 134

(Revise)

1	PRINCIPLES OF SOCIOLOGY	3 UNITS
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Designed to illuminate the way students see their social world. Uses a sociological perspective: scientific study of human interaction and society, with emphasis on impact of groups on social behavior. Includes the systematic examination of culture, socialization, social organization, social class, race, gender, deviance, social change and empirical methodology. These content areas are woven throughout the fabric of the course, particularly as they affect the lives of at least three of the following groups: African Americans, Latino Americans, Asian Americans, Native Americans and/or women. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: DO; D; IGETC: Area 4; AA/AS; (CAN SOC 2).

THEATER ARTS (THEA)

■ ■ ■ ■ ■ APPLIES TO 2004-05 ONLY. ■ ■ ■ ■ ■

SEE THE 2005-06 SECTION FOR REVISIONS.

■ ■ ■ ■ ■

(Revise)

1A THEORY AND PRACTICE OF ACTING I 3 UNITS

Introduction to the techniques and theories of acting, explored through improvisation, exercises and scene study. Development of the physical and psychological resources for acting including relaxation, concentration, creativity, believability, and commitment. 3 hours. Transfer: CSU, UC; CSU/GE: C1; AA/AS; (CAN DRAM 8).

(Delete prerequisite)

30 DRAMA WORKSHOP 1-3 UNITS

(May be repeated 3 times)

Participation in experimental workshop plays, original student scripts, and other projects, possibly leading to scheduled performances. 3-9 hours laboratory. Transfer: CSU, UC.

(Add)

500 THEATER STUDIO 0 UNITS

Extended study of various topics from the Theater Performance courses. Emphasis on developing acting and performing skills. Corequisite: Theater Arts 1A, 1B, 5 or 47. Variable hours laboratory.

CURRICULUM CHANGES
2005-2006

Program and course changes in this section are
effective beginning Fall Semester 2005.

Use them together with changes
in the 2004-2005 Section to update the
2003-2005 Chabot College Catalog.



GRADUATION REQUIREMENTS

(The following changes to Graduation Requirements refer to the printed 2003-05 Catalog;
they supersede those published in the 2004-05 Addendum.)

CHANGES TO PAGE 17

- I. ASSOCIATE IN ARTS DEGREE (A.A.)**
- A. LANGUAGE AND RATIONALITY**
Communications and Analytical Thinking
(Add)
History 12*
Mathematics 54, 54L
- B. NATURAL SCIENCE**
(Add)
Chemistry 30B
Physics 4B, 4C, 5
- C. HUMANITIES**
(Add)
English 34
Photography 53A
- D. SOCIAL AND BEHAVIORAL SCIENCES**
(Add)
History 27*
Political Science 2*
- *May be used to fulfill one area only.*
- E. HEALTH AND PHYSICAL EDUCATION**
- 2. Physical Education Complete 2 SEM UNITS**
(Add)
Physical Education 4
- AMERICAN INSTITUTIONS Complete a minimum
of 6 SEM UNITS**
- (Replace as follows)**
Select one course from Group A and one course
from Group B
Group A: History 7*, 20* or Political Science 1*
Group B: History 8*, 12*, 21*, 22*, 25*, 27*
Political Science 2*
- *May be used to fulfill one area only.*
- AMERICAN CULTURES**
(Delete)
Humanities 10
Theater Arts 14
- MATHEMATICS PROFICIENCY**
(Add)
Mathematics 54, 54L

CHANGES TO PAGE 19

- I. ASSOCIATE IN SCIENCE DEGREE (A.S.)**
- A. LANGUAGE AND RATIONALITY**
Communications and Analytical Thinking
(Add)
History 12*
Mathematics 54, 54L
- B. NATURAL SCIENCE**
(Add)
Chemistry 30B
Physics 4B, 4C, 5
- C. HUMANITIES**
(Add)
English 34
Photography 53A
- D. SOCIAL AND BEHAVIORAL SCIENCES**
(Add)
History 27*
Political Science 2*
- *May be used to fulfill one area only.*
- E. HEALTH or AMERICAN INSTITUTIONS
& PHYSICAL EDUCATION**
- 1. Health Education OR**
American Institutions: Complete 3 SEM UNITS
(Replace as follows)
Health 1, 4, Physical Education 18 or
History 7*, 8*, 12*, 20*, 21*, 22*, 25*, 27* or
Political Science 1*, 2*
- 2. Physical Education . Complete 1 SEM UNIT**
(Add)
Physical Education 4
- *May be used to fulfill one area only.*
- AMERICAN CULTURES**
(Delete)
Humanities 10
Theater Arts 14
- MATHEMATICS PROFICIENCY**
(Add)
Mathematics 54, 54L

CHANGES TO PAGE 23

CALIFORNIA STATE UNIVERSITY (CSU)

Upper Division Transfer Requirements:

You are eligible for admission to the CSU if you:

(Revise paragraph)

- Completed or will complete 60* semester (90) quarter) or more CSU transferable units with an overall GPA of 2.0 or more CSU transferable units with an overall GPA of 2.0 or better.

(Add footnote)

*Some CSU institutions may allow 56 units. Check with individual campuses for their requirements.

ADVANCED PLACEMENT PROGRAM

CHANGES TO PAGE 25

(Revise chart as follows)

AP Examination	AP Score	Subject Credit Given For:	Prerequisite Met For the Following Course(s)	Chabot Credits Issued For Graduation	1. AA/AS GE 2. CSU/GEB 3. IGETC Requirements Met
CHEMISTRY	3, 4, 5	Chemistry 1A	Biology 2A Chemistry 1B Engineering 45	5 units	1. Satisfies Area B 2. 6 units toward Area B1 and B3 (lab) 3. Satisfies Area 5, Group A (no lab units)
ECONOMICS Micro	3, 4, 5	Economics 1	n/a	3 units	1. Satisfies Area D 2. 3 units toward Area D2 3. 3 units toward Area 4
ECONOMICS Macro	3, 4, 5	Economics 2	n/a	3 units	1. Satisfies Area D 2. 3 units toward Area D2 3. 3 units toward Area 4

DEGREE PROGRAMS AND TRANSFER MAJORS

(The following changes to Degree Programs and Transfer Majors refer to the printed 2003-05 Catalog; they supersede those published in the 2004-05 Addendum.)

CHANGES TO PAGES 27-29

(Revise Titles)

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
(From) Computer Software Applications (AA) (To) Software Specialist (AS)			X		
(From) Fire Service Technology (To) Fire Technology		X		X	
(From) Fire Service Technology - Inspector (To) Fire Prevention Inspector		X		X	

(Add)

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
Automotive Maintenance Technology				X	
Automotive Chasis Technology				X	
Automotive Drivetrain Technology				X	
Automotive Engine Machining				X	
Automotive Engine Performance Technology				X	
Business*			X		
Business Graphics				X	
Geography		X			
Inspection and Pipe Welding					X
Psychology-Counseling - Human Services (Pending State Approval)		X	X		
Retail Management			X	X	
Retailing					X
Small Business Management					X
Welding				X	

*Replaces the degrees starred in the next chart.

(Delete)

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
Automotive Diagnostic Technology			X		
Automotive Mechanics				X	
Automotive Service				X	
Automotive Technology				X	
*Business (General)			X		
*Business (Emphasis in International Business)			X		
*Business (Emphasis in Marketing)			X		
*Business (Emphasis in Management)			X		
Computer Application Systems - Computer Programming		X			
Electronics Audio/Video Technology				X	
Linux Administration and Website Management		X	X		
Linux Systems Administration Specialist				X	
Linux Systems Programming		X	X		
Linux Systems Programming Specialist				X	
Microsoft Access/SQL Database Specialist					X
Oracle/SQL/SQL Server Specialist				X	
Web Site Development Specialist				X	

ART (ART)

CHANGES TO PAGE 38

(Revise)

5 ART HISTORY—RENAISSANCE TO MODERN 3 UNITS

...From early renaissance through high renaissance...Post-Impressionism, and 20th Century...

(Revise)

6 MUSEUM STUDIES 3 UNITS

Historical overview of museums and practical, hands-on instruction in skills basic to museum and gallery workers. Held in Chabot's student art gallery with visits to local museums, galleries and/or historical societies. Social role of museums, art handling, curating, registration, preparation, exhibition and art education. Culminates in the hanging of an on-campus art exhibition. Prerequisites: any two of the following four courses: Art 1, Art 4, Art 5, or Art 67/Photography 67 (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours laboratory. Transfer: CSU; CSU/GE:CI; AA/AS.

(Revise)

13A ACRYLIC PAINTING—BEGINNING I 3 UNITS

Projects in acrylic painting with an emphasis on fundamental painting techniques and approaches...

(Revise)

13B ACRYLIC PAINTING—BEGINNING II 3 UNITS

Projects in acrylic painting with an emphasis on fundamental painting techniques and approaches. Prerequisite: Art 13A or equivalent (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

(Revise)

13C ACRYLIC PAINTING—ADVANCED I 3 UNITS

... Prerequisite: Art 13B or equivalent (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

(Revise)

13D ACRYLIC PAINTING—ADVANCED II 3 UNITS

...Prerequisite: Art 13C or equivalent (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

CHANGES TO PAGE 40 – 42

(Change Rubric from AUTO to ATEC)

AUTOMOTIVE TECHNOLOGY (ATEC)

DEGREE:

AS—AUTOMOTIVE TECHNOLOGY

CERTIFICATE OF ACHIEVEMENT: (ALL PENDING STATE APPROVAL)

AUTOMOTIVE MAINTENANCE TECHNOLOGY

**AUTOMOTIVE CHASSIS TECHNOLOGY
AUTOMOTIVE DRIVETRAIN TECHNOLOGY
AUTOMOTIVE ENGINE MACHINING
AUTOMOTIVE ENGINE PERFORMANCE TECHNOLOGY**

(Delete degree)

**AUTOMOTIVE DIAGNOSTIC TECHNOLOGY
ASSOCIATE IN SCIENCE DEGREE**

(Revise)

**AUTOMOTIVE TECHNOLOGY
ASSOCIATE IN SCIENCE DEGREE**

The Automotive Technology Degree involves completing the core curriculum plus any one of the following Certificates: Automotive Engine Performance Technology, Automotive Engine Machining, Automotive Drivetrain Technology, Automotive Chassis Technology, or Automotive Maintenance Technology and the General Education requirements. Only one AS Degree in Automotive Technology may be earned.

FRESHMAN YEAR	FALL	SPRING
Automotive Technology 50		
(Automotive Fundamentals)		2 ¹ /2
Automotive Technology 60A*		
(Automotive Electrics/Electronics I)		4
Automotive Technology 65*** (Automotive Breaking Systems)		3
Automotive Technology 62****		
(Automotive Air Conditioning Cooling and Heating Systems)		2 ¹ /2
Automotive Technology 66		
(Automotive Steering, Suspension, and Alignment Systems)		3
Industrial Technology 74 or Equivalent/Competency (Measurements and Calculations)		3
SOPHOMORE YEAR	FALL	SPRING
Automotive Technology 63A		
(Introduction to Engines and Machining Processes)		3
Welding Technology 70		
(Introduction to Welding)		2
Emphasis options (Select from the emphasis option list below)		7-20
Total		30-43

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

These courses are recommended as preparation for the following California State and BAR tests for

- * Smog Check Technician License
- *** Brake Adjusters License
- **** Air Conditioning Refrigeration Recovery and Recycling Certification

Emphasis 1- Maintenance, add:
 Automotive Technology 61A 4 units
 Automotive Technology 64A 3 units
 Automotive Technology 64B 3 units
 Automotive Technology 71
 Or Automotive Technology 71A and
 Automotive Technology 71B. 8 units

Emphasis 2 - Chassis, add:
 Automotive Technology 63B 3 units
 Machine Tool Technology 60A 4 units

Emphasis 3 - Drivetrain, add:
 Automotive Technology 61A 4 units
 Automotive Technology 63B 3 units
 Automotive Technology 64B 3 units

Emphasis 4 - Engine Machining, add:
 Automotive Technology 63B 3 units
 Machine Tool Technology 60A 4 units

Emphasis 5 - Engine Performance, add:
 Automotive Technology 61A 4 units
 Automotive Technology 63B 3 units
 Automotive Technology 68 5 units
 Automotive Technology 71
 Or Automotive Technology 71A and
 Automotive Technology 71B. 8 units

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(Delete the following Certificates of Achievement and replace with the new certificates that follow.)

**AUTOMOTIVE MECHANICS
 AUTOMOTIVE SERVICE
 AUTOMOTIVE TECHNOLOGY**

(New certificate)

AUTOMOTIVE MAINTENANCE TECHNOLOGY
 CERTIFICATE OF ACHIEVEMENT
 PENDING STATE APPROVAL

FRESHMAN YEAR	FALL	SPRING
Automotive Technology 50 (Automotive Fundamentals)		2 ¹ / ₂
Automotive Technology 60A* (Automotive Electrics/Electronics I)		4
Automotive Technology 61A (Fuel Induction Systems)		4
English 1A (Critical Reading and Composition), or English 52A (Essentials of Communication), or English 70 (Report Writing), or Equivalent/ Competency		3
Automotive Technology 71 */** (Powertrain and Vehicle Performance) Or Automotive Technology 71A (Powertrain and Vehicle Performance I)		

and
 Automotive Technology 71B (Power-
 train and Vehicle Performance II) 8
 Industrial Technology 74 or
 Equivalent/Competency
 (Measurements and Calculations)..... 3

SOPHOMORE YEAR	FALL	SPRING
Automotive Technology 65*** (Automotive Breaking Systems)		3
Welding Technology 70 (Introduction to Welding)		2
Automotive Technology 62**** (Automotive Air Conditioning Cooling and Heating Systems)		2 ¹ / ₂
Automotive Technology 66 (Automotive Steering, Suspension, and Alignment Systems)		3
Total		35

These courses are recommended as preparation for the following California State and BAR tests for

- * Smog Check Technician License
- ** Lamp Adjuster License
- *** Brake Adjusters License
- **** Air Conditioning Refrigeration Recovery and Recycling Certification

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(New certificate)

AUTOMOTIVE CHASSIS TECHNOLOGY
 CERTIFICATE OF ACHIEVEMENT
 PENDING STATE APPROVAL

	FALL	SPRING
Automotive Technology 50 (Automotive Fundamentals)		2 ¹ / ₂
Automotive Technology 60A* (Automotive Electrics/Electronics I)		4
Automotive Technology 65*** (Automotive Breaking Systems)		3
English 1A (Critical Reading and Composition), or English 52A (Essentials of Communication), or English 70 (Report Writing), or Equivalent/ Competency		3
Automotive Technology 66 (Automotive Steering, Suspension, and Alignment Systems)		3
Industrial Technology 74 or Equivalent/Competency (Measurements and Calculations).....		3
Welding Technology 70 (Introduction to Welding)		2
Total		20¹/₂

These courses are recommended as preparation for the following California State and BAR tests for

- * Smog Check Technician License
- *** Brake Adjusters License

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(New certificate)

AUTOMOTIVE DRIVETRAIN TECHNOLOGY
 CERTIFICATE OF ACHIEVEMENT
 PENDING STATE APPROVAL

	FALL	SPRING
Automotive Technology 50 (Automotive Fundamentals)		2 ¹ / ₂
Automotive Technology 60A* (Automotive Electrics/Electronics I)		4
Automotive Technology 64A (Manual Drivetrain and Axle Assemblies) ...		3
English 1A (Critical Reading and Composition), or English 52A (Essentials of Communication), or English 70 (Report Writing), or Equivalent/ Competency		3
Automotive Technology 64B (Automatic Transmission/Transaxle Assemblies)		3
Industrial Technology 74 or Equivalent/Competency (Measurements and Calculations)		3
Welding Technology 70 (Introduction to Welding)		2
Total		20¹/₂

This course is recommended as preparation for the following California State and BAR tests for

- * Smog Check Technician License

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(New certificate)

AUTOMOTIVE ENGINE MACHINING
 CERTIFICATE OF ACHIEVEMENT
 PENDING STATE APPROVAL

	FALL	SPRING
Automotive Technology 50 (Automotive Fundamentals)		2 ¹ / ₂
Automotive Technology 63A (Introduction to Engines and Machining Processes)		3
English 1A (Critical Reading and Composition), or English 52A (Essentials of Communication), or English 70 (Report Writing), or Equivalent/ Competency		3

Industrial Technology 74 or Equivalent/Competency (Measurements and Calculations)	3
Automotive Technology 63B (Engines, Machining and Assembly Processes)	3
Machine Tool Technology 60A (Machine Tool Technology I)	4
Welding Technology 70 (Introduction to Welding)	2
Total	20¹/₂

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(New certificate)

AUTOMOTIVE ENGINE PERFORMANCE TECHNOLOGY
 CERTIFICATE OF ACHIEVEMENT
 PENDING STATE APPROVAL

FRESHMAN YEAR	FALL	SPRING
Automotive Technology 50 (Automotive Fundamentals)		2 ¹ / ₂
Automotive Technology 60A*/*** (Automotive Electrics/Electronics I)		4
Automotive Technology 61A* (Fuel Induction Systems)		4
English 1A (Critical Reading and Composition), or English 52A (Essentials of Communication), or English 70 (Report Writing), or Equivalent/ Competency		3
Automotive Technology 71 */** (Powertrain and Vehicle Performance) Or Automotive Technology 71A (Powertrain and Vehicle Performance I) and Automotive Technology 71B (Power- train and Vehicle Performance II)		8
Automotive Technology 62**** (Automotive Air Conditioning Cooling and Heating Systems)		2 ¹ / ₂
Industrial Technology 74 or Equivalent/Competency (Measurements and Calculations)		3
SOPHOMORE YEAR	FALL	SPRING
Automotive Technology 63A (Introduction to Engines and Machining Processes)		3
Automotive Technology 68 (California BAR Basic and Advanced Clean Air Car Course)		5
Automotive Technology 63B (Engines, Machining and Assembly Processes)		3
Welding Technology 70 (Introduction to Welding)		2
Total		40

These courses are recommended as preparation for the following California State and BAR tests for

- * Smog Check Technician License
- ** Lamp Adjuster License
- *** Brake Adjusters License
- **** Air Conditioning Refrigeration Recovery and Recycling Certification

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(Revised)

60A AUTOMOTIVE ELECTRICS/
ELECTRONICS I 4 UNITS

(May be repeated 3 times)

Automotive electrical/electronic systems. Basic electrical circuits, components, battery, starting, charging, and basic wiring systems. Electrical components and the use of basic wiring diagrams for trouble shooting systems. Repair of wiring circuits and correct use of diagnostic equipment. Prerequisite: Automotive Technology 50 or 55 (may be taken concurrently). Strongly recommended: Automotive Technology 61A, Industrial Technology 74.

2¹/₂ hours lecture, 5¹/₂ hours laboratory.

CHANGES TO PAGE 43

(Revised units and description)

60B AUTOMOTIVE ELECTRICS/
ELECTRONICS II 3 1/2 UNITS

(May be repeated 3 times)

Continuation of Automotive Technology 60A with emphasis on diagnosis and repair of electrical/electronic components including computer controlled circuits/systems using schematics, diagnostic procedures and equipment; headlamp adjusting and repair. May not receive credit if Automotive Technology 71 has been completed. Prerequisite: Automotive Technology 60A or equivalent. 2 hours lecture, 5 hours laboratory.

(Revised title and description)

61A FUEL INDUCTION SYSTEMS 4 UNITS

(May be repeated 3 times)

Introduction to the principles of automotive fuel induction systems, including the inspection, diagnosis, and evaluation of fuel storage, fuel pumps, carburetion, intake manifolds, combustion theory, exhaust analysis, engine operation principles and introduction to fuel injection systems. Prerequisite: Automotive Technology 50 (may be taken concurrently). Strongly recommended: Automotive Technology 60A. 2¹/₂ hours lecture, 5¹/₂ hours laboratory. Transfer: CSU.

(Revised units and description)

61B FUEL INDUCTION, EMISSION AND
COMPUTER CONTROL SYSTEMS II 3 1/2 UNITS

(May be repeated 3 times)

Continuation of Automotive Technology 61A with emphasis on emission control, fuel injection and computer control systems.

Includes software/hardware concepts and applications, sensor and control circuits, diagnosis and repair of systems/components. May not receive credit if Automotive Technology 71 has been completed. Prerequisite: Automotive Technology 61A or equivalent. 2 hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised)

63A INTRODUCTION TO ENGINES AND
MACHINING PROCESSES 3 UNITS

(May be repeated 3 times)

Diagnosis, inspection and repair of various engine types; machining operations, use of instruments and automotive machinist equipment in repairing engines, valve train assemblies and cylinder head reconditioning, cooling and lubrication system fundamentals. Prerequisite: Automotive Technology 50 (may be taken concurrently) or equivalent. Strongly recommended: Industrial Technology 74. 1¹/₂ hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised)

63B ENGINES, MACHINING AND
ASSEMBLY PROCESSES 3 UNITS

(May be repeated 3 times)

Continuation of Automotive Technology 63A with emphasis on cylinder head assembly, camshaft design and servicing, inspection, machining operations, and reconditioning of engine blocks including final assembly and installation of engines. Prerequisite: Automotive Technology 63A (*completed with a grade of "C" or higher*), or equivalent. 1¹/₂ hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised title and description)

64A MANUAL DRIVE TRAIN AND
AXLE ASSEMBLIES 3 UNITS

(May be repeated 3 times)

Diagnosis, inspection, repair, and adjustment of automotive manual drive train and axle assemblies. Includes manual transmissions/transaxles, final drives, rear axle assemblies, clutches, viscous couplings, two, four and all-wheel drive assemblies. Prerequisite: Automotive Technology 50 (may be taken concurrently) or equivalent. Strongly Recommended: Industrial Technology 74. 1¹/₂ hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised title and description)

64B AUTOMATIC TRANSMISSION/
TRANSAXLE ASSEMBLIES 3 UNITS

(May be repeated 3 times)

Diagnosis, inspection, repair, and adjustment of automatic transmission/transaxle assemblies. Includes the study of torque converters, friction materials, hydraulics, gear trains, manual and electronic controls. Prerequisite: Automotive Technology 50 (may be taken concurrently) or equivalent. Strongly Recommended: Industrial Technology 74 (may be taken concurrently). 1¹/₂ hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised title and description)

65 AUTOMOTIVE BRAKING SYSTEMS 3 UNITS

(May be repeated 3 times)

Diagnosis, inspection, repair, and adjustment of modern automotive brakes and anti-lock braking systems. Includes theory of operation, the study of basic laws of hydraulics, methods of repair, and diagnosis, brake service equipment. Prerequisite: Automotive Technology 50 (May be taken concurrently) or equivalent. Strongly Recommend: Industrial Technology 74 (may be taken concurrently). 1¹/₂ hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised title and description)66 AUTOMOTIVE STEERING, SUSPENSION,
AND ALIGNMENT SYSTEMS 3 UNITS*(May be repeated 3 times)*

Diagnosis, inspection, repair, and adjustment of modern automotive steering, suspension and alignment systems. Includes theory of operation, the study of common automotive steering and suspension systems, wheel alignment principles, methods of diagnosis, adjustment and repair, suspension service equipment. Prerequisite: Automotive Technology 50 (may be taken concurrently) or equivalent. Strongly Recommend: Automotive Technology 65, Industrial Technology 74 (may be taken concurrently). 1¹/₂ hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised title and description)68 CALIFORNIA BAR BASIC AND
ADVANCED CLEAN AIR CAR COURSE 5 UNITS*(May be repeated 3 times)*

Motor vehicle emission inspection and maintenance. Includes the Bureau of Automotive Repair (BAR) requirements for the Basic Clean Air Car Course (BCACC) and the Advanced Clean Air Car Course (ACACC). The BCACC includes the current updates and OBDII requirements. The ACACC includes the Dyno Transition and Advanced Emissions Diagnosis requirements. Required for eligibility to take the State Licensing exam at completion of the course: one year trade experience in emissions/tune up, or nine semester units (13 quarter units) in Automotive Technology, or 180 hours at an accredited automotive school. Automotive Service Excellence (ASE) certification in the Electrical (A6), Engine Performance (A8), and Advanced Engine Performance (L1) also required in order to take the State Exam. The BAR A6, A8, and L1 ASE alternative courses are not included in this course. 4 hours lecture, 4 hours laboratory.

(Revised title and description)70 INTRODUCTION TO AUTOMOTIVE
SERVICE 2 UNITS*(May be repeated 3 times)*

Designed for non-majors, overview of major components and systems of the automobile, including the engine, fuel, electrical, drive train, brake, and suspension systems, basic service procedures discussed. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

(Add)71 POWERTRAIN AND VEHICLE
PERFORMANCE 8 UNITS*(May be repeated 3 times)*

Continued study of electrical/electronic and fuel control systems, including engine management systems, emission control systems, emissions testing, drive ability and vehicle performance diagnosis and repair. May not receive credit if Automotive Technology 60B and 61B have been completed. Prerequisites: Automotive Technology 60A and 61A. 5 hours lecture, 11 hours laboratory.

(Add)71A POWERTRAIN AND VEHICLE
PERFORMANCE I 4 UNITS*(May be repeated 3 times)*

Continued study of electrical and electronic systems, including computer management systems, drivability and vehicle performance diagnosis and repair related to electrical system problems. May not receive credit if Automotive Technology 71 has been completed. Prerequisites: Automotive Technology 60A and 61A. 2¹/₂ hours lecture, 5¹/₂ hours laboratory.

(Add)71B POWERTRAIN AND VEHICLE
PERFORMANCE II 4 UNITS*(May be repeated 3 times)*

Continued study of electrical/electronic and fuel control systems, including engine management systems, emission control systems, emissions testing, drive ability and vehicle performance diagnosis and repair. May not receive credit if Automotive Technology 71 has been completed. Prerequisites: Automotive Technology 71A. 2¹/₂ hours lecture, 5¹/₂ hours laboratory.

BIOLOGICAL SCIENCES**CHANGES TO PAGE 46****PHYSIOLOGY (PHSI)**

1 HUMAN PHYSIOLOGY 5 UNITS

...May be offered in Distance Education delivery format. 3 hours lecture, 6 hours laboratory. Transfer:...

BUSINESS (BUS)**CHANGES TO PAGE 46-49**

(The following changes to Degrees and Certificates refer to the printed 2003-2005 Catalog; they supersede those published in the 2004-05 Addendum.)

DEGREE:**AS—ACCOUNTING****AS—BUSINESS****(PENDING STATE APPROVAL)**

AA—BUSINESS ADMINISTRATION
AS —RETAIL MANAGEMENT
 (PENDING STATE APPROVAL)

CERTIFICATE OF ACHIEVEMENT:

ACCOUNTING TECHNICIAN
MARKETING

RETAIL MANAGEMENT (PENDING STATE APPROVAL)

CERTIFICATE OF COMPLETION:

MANAGEMENT
RETAILING
SMALL BUSINESS MANAGEMENT

ACCOUNTING
 ASSOCIATE IN SCIENCE DEGREE

SOPHOMORE YEAR	FALL	SPRING
(Course change)		
Business 14 (Business Communications) or Business 15 (Business Correspondence)		3

BUSINESS
 ASSOCIATE IN SCIENCE DEGREE
 PENDING STATE APPROVAL

(Replaces these AS Degrees)
BUSINESS (General)

BUSINESS (Emphasis in International Business)
BUSINESS (Emphasis in Marketing)
BUSINESS (Emphasis In Management)

The core curriculum for the Business Associate in Science Degree involves completing the courses below and the general education requirements. Students may enroll in one of the four areas of emphasis: General Business, International Business, Management, or Marketing. Only one Associate in Science Degree in Business may be earned.

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)		3-4
Business 10 (Business Law)		4
Business 12 (Introduction to Business)		3
Business 14 (Business Communications)		3
Business 16 (Business Mathematics)		3
Business 22 (Introduction to Management)		3

SOPHOMORE YEAR	FALL	SPRING
Business 36 (Introduction to Marketing)		3
Business 40 (International Business)		3

Computer Application Systems 8

(Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Application Systems 54A (Microsoft Excel I)		3
--	--	---

Emphasis (Select from the areas of emphasis below. Only one AS degree in Business may be earned.)

Total 30-43

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

Emphasis 1—General Business
Select a minimum of 9 units from any other business classes.

Emphasis 2—International Business
Select a minimum of 9 units from the following options:
 Business 21 (Human Resource Management) .. 3 units
 Business 26 (Small Business Management) 3 units
 Business 41 (Export/Import Operations) 3 units
 French 1A (Beginning French) 5 units
 German 1A (Beginning German) 5 units
 Italian 1A (Beginning Italian) 5 units
 Japanese 1A (Beginning Japanese 5 units
 Spanish 1A (Beginning Spanish) 5 units
 Geography 2 (Cultural Geography) 3 units
 Geography 5 (World Regional Geography) 3 units
 Political Science 30 (International Relations) ... 3 units
 Business 95/Work Experience 95
 (Business/Work Experience) 1-3 units
 Business 96/Work Experience 96
 (Business/Work Experience Seminar) 1 unit

Emphasis 3—Management
 Business 21 (Human Resource Management) .. 3 units
Select a minimum of 6 units from the following options:
 Business 17 (Business Ethics) 3 units
 Business 26 (Small Business Management) 3 units
 Business 28 (Human Relations in the
 Workplace) 3 units
 Business 95/Work Experience 95
 (Business/Work Experience) 1-3 units
 Business 96/Work Experience 96
 (Business/Work Experience Seminar) 1 unit
 Psychology 1 (General Psychology) 3 units

Emphasis 4—Marketing
Select a minimum of 6 units from the following options:
 Business 15 (Business Correspondence) 3 units
 Business 31 (Professional Selling) 3 units
 Business 32 (Retail Store Management) 3 units
 Business 34 (Introduction to Advertising) 3 units

Select a minimum of 3 units from the following options:

- Business 26 (Small Business Management) 3 units
- Business 28 (Human Relations in the Workplace) 3 units
- Business 41 (Export/Import Operations) 3 units
- Business 95/Work Experience 95 (Business/Work Experience) 1-3 units
- Business 96/Work Experience 96 (Business/Work Experience Seminar) 1 unit
- Computer Application Systems 82 (Designing Web Pages) 3 units

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**BUSINESS ADMINISTRATION
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE**

SOPHOMORE YEAR	FALL	SPRING
(Course changes)		
Mathematics 35 (Statistics for Business Majors) or Mathematics 43 (Introduction to Probability and Statistics)		4
Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Application Systems 55 (Microsoft Office Integration)		3

(Add: New Degree)

**RETAIL MANAGEMENT
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL**

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)		3-4
Business 14 (Business Communications)		3
Business 15 (Business Correspondence)		3
Business 16 (Business Mathematics)		3

SOPHOMORE YEAR	FALL	SPRING
Business 21 (Human Resource Management) ...		3
Business 28 (Human Relations in the Workplace)		3
Business 36 (Introduction to Marketing)		3
Business 22 (Introduction to Management)		3
Business 32 (Retail Store Management)		3
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Total		30-31

General Education Courses
For specific General Education courses refer to catalog section

on Graduation Requirements.

Total minimum units required 60

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**ACCOUNTING TECHNICIAN
CERTIFICATE OF ACHIEVEMENT**

(Revised)

CORE COURSES	FALL	SPRING
Business 1A (Principles of Accounting I)		4
Business 14 (Business Communications) or Business 15 (Business Correspondence)		3
Computer Application Systems 54A (Microsoft Excel® I)		3
Business 1B (Principles of Accounting II)		4
Business 3 (Income Tax Accounting)		4
Business 5 (Introduction to Peachtree Accounting)		1
Business 6 (Introduction to QuickBooks Accounting)		1
Total		20

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(See Curriculum Changes 2004-05)

**RETAIL MANAGEMENT
CERTIFICATE OF ACHIEVEMENT
PENDING STATE APPROVAL**

**MARKETING
CERTIFICATE OF ACHIEVEMENT
(Remove PENDING STATE APPROVAL)**

**MANAGEMENT
CERTIFICATE OF COMPLETION
PENDING STATE APPROVAL**

CORE COURSES	FALL	SPRING
(Semester change)		
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)		3-4
Business 21 (Human Resources Management)		3

(Unit change)

Option*		6
Total		18-19

*Select a minimum of 6 units from the following options:

(Add)

Business 10 (Business Law) 4 units

(See Curriculum Changes 2004-05)

**RETAILING
CERTIFICATE OF COMPLETION**

(Add)

**SMALL BUSINESS MANAGEMENT
CERTIFICATE OF COMPLETION**

CORE COURSES	FALL	SPRING
Business 7 (General Accounting)	3	
Business 26 (Small Business Management)	3	
Business 10 (Business Law)	4	
Business 5 (Introduction to Peachtree Accounting) or Business 6 (Introduction to QuickBooks Accounting)	1	
Option*	6	
Total	17	

*Option

Select a minimum of 6 units from the following options:

- Business 12 (Introduction to Business) 3 units
- Business 21 (Human Resource Management) 3 units
- Business 22 (Introduction to Management) 3 units
- Business 31 (Professional Selling) 3 units
- Business 32 (Retail Store Management) 3 units
- Business 34 (Introduction to Advertising) 3 units
- Business 36 (Introduction to Marketing) 3 units
- Business 40 (International Business) 3 units
- Business 41 (Export/Import Operations) 3 units
- Business 95/Work Experience 95 (Business Work Experience) 1-3 units
- Business 96/Work Experience 96 (Business Work Experience Seminar) 1 unit
- Computer Application Systems 82 (Designing Web Pages) 3 units

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

(Revision)

1A PRINCIPLES OF ACCOUNTING I 4 UNITS
...May be offered in Distance Education Delivery format. 4 hours lecture...

(Revision)

1B PRINCIPLES OF ACCOUNTING II 4 UNITS
...May be offered in Distance Education Delivery format. 4 hours lecture...

CHANGES TO PAGE 50

(Transfer addition)

6 INTRODUCTION TO QUICKBOOKS ACCOUNTING 1 UNIT
...Transfer: CSU.

(Revise)

36 INTRODUCTION TO MARKETING 3 UNITS
...May be offered in Distance Education delivery format. 3 hours...

CHEMISTRY (CHEM)

CHANGES TO PAGE 52

(Correct description)

30B INTRODUCTORY AND APPLIED CHEMISTRY 4 UNITS
Continuation of chemistry 30A with emphasis on organic and biochemical concepts related to human physiological systems..AA/AS; (CAN CHEM 8)

**COMPUTER APPLICATION SYSTEMS
(CAS)**

CHANGES TO PAGE 53-55

(The following changes to Degrees and Certificates refer to the printed 2003-2005 Catalog; they supercede those published in the 2004-05 Addendum)

DEGREE:

(Replaces AA—Computer Software Applications)
**AS— COMPUTER APPLICATION SYSTEMS
(SOFTWARE SPECIALIST)**

(Delete)

**AA— COMPUTER APPLICATION SYSTEMS
(COMPUTER PROGRAMMING)**

CERTIFICATE OF ACHIEVEMENT:

**ADMINISTRATIVE ASSISTANT
BUSINESS GRAPHICS
OFFICE TECHNOLOGY**

(Replaces Computer Software Applications)
SOFTWARE SPECIALIST

CERTIFICATE OF COMPLETION:

OFFICE TECHNOLOGY

(Revised: Replaces AA—Computer Software Applications)
(Revised: Replaces AA—Computer Software Applications)

**COMPUTER APPLICATION SYSTEMS—
SOFTWARE SPECIALIST
ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR	FALL	SPRING
Computer Applications Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Computer Application Systems 72A (Elementary Computer Keyboarding I) ...		1

Business 14 (Business Communications) or Business 15 (Business Correspondence) ..	3		
Computer Application Systems 54A (Microsoft Excel® I)	3		
Computer Application Systems 88A (Microsoft Word® I)	3		
Computer Science 7 (Introduction to Computer Programming Concepts) or Computer Science 10 (Introduction to Programming Using Visual BASIC)	3-4		
SOPHOMORE YEAR		FALL	SPRING
Computer Application Systems 58 (Introduction to Microsoft Access®)	3		
Computer Science 91 (Introduction to Hypertext Markup Language (HTML)) ...	2		
Electives*	3		
Computer Science 14 (Introduction Structured Programming in C++)	4		
Business Work Experience 95 or Work Experience 95 (Work Experience)	1-3		
Business Work Experience 96 or Work Experience 96 (Work Experience Seminar)	1		
Total	30-33		

**Three units may be selected from the following:*

- Computer Application Systems 54B (Microsoft Excel® II) 3 units
- Computer Application Systems 55 (Microsoft Office Integration) 3 units
- Computer Application Systems 82 (Designing Web Pages) 3 units
- Computer Application Systems 84 (Designing Business Graphics) 3 units
- Computer Application Systems 88B (Microsoft Word® II) 3 units

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

(Revise)

**ADMINISTRATIVE ASSISTANT
ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR		FALL	SPRING
Business 14 (Business Communications) or Business 15 (Business Correspondence) ..	3		
Computer Applications Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)	3		

Computer Application Systems 70 (Computer Keyboarding and Formatting) or Computer Application Systems 72A (Computer Keyboarding I) and Computer Application Systems 72B (Computer Keyboarding II) and Computer Application Systems 72C (Computer Keyboarding III)	3		
Business 7 (General Accounting) or Business 1A (Principles of Accounting)	3-4		
Computer Application Systems 54A (Microsoft Excel® I)	3		
Computer Application Systems 88A (Microsoft Word® I)	3		
SOPHOMORE YEAR		FALL	SPRING
Business 22 (Introduction to Management) or Business 28 (Human Relations in the Workplace)	3		
Computer Application Systems 58 (Introduction to Microsoft Access®)	3		
Electives*	3		
Computer Applications Systems 55 (Microsoft Office® Integration)	3		
Business Work Experience 95 or Work Experience 95 (Work Experience)	1-3		
Business Work Experience 96 or Work Experience 96 (Work Experience Seminar)	1		
Total	32-35		

**Three units may be selected from the following:*

- Computer Application Systems 54B (Microsoft Excel® II) 3 units
- Computer Application Systems 82 (Designing Web Pages) 3 units
- Computer Application Systems 84 (Designing Business Graphics) 3 units
- Computer Application Systems 88B (Microsoft Word® II) 3 units

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

(Revise)

**ADMINISTRATIVE ASSISTANT
CERTIFICATE OF ACHIEVEMENT**

CORE COURSES		FALL	SPRING
Computer Applications Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)	3		

Computer Application Systems 70 (Computer Keyboarding and Formatting) or Computer Application Systems 72A (Computer Keyboarding I) and Computer Application Systems 72B (Computer Keyboarding II) and Computer Application Systems 72C (Computer Keyboarding III)	3
Computer Application Systems 88A (Microsoft Word® I)	3
Computer Application Systems 54A (Microsoft Excel® I)	3
Computer Application Systems 58 (Introduction to Microsoft Access®)	3
Business 14 (Business Communications) or Business 15 (Business Correspondence)	3
Electives*	3
Total	21

**Three units may be selected from the following:*

- Computer Application Systems 54B (Microsoft Excel® II) 3 units
- Computer Application Systems 55 (Microsoft Office Integration) 3 units
- Computer Application Systems 82 (Designing Web Pages) 3 units
- Computer Application Systems 84 (Designing Business Graphics) 3 units
- Computer Application Systems 88B (Microsoft Word® II) 3 units

(New)

BUSINESS GRAPHICS
CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Computer Application Systems 88A (Microsoft Word® I)		3
Computer Science 91 (Introduction to Hypertext Markup Language (HTML)) ... 2		
Computer Application Systems 72F (Introduction to Microsoft PowerPoint)		1
Computer Application Systems 82 (Designing WebPages)		3
Computer Application Systems 84 (Designing Business Graphics)		3
Photography 31A (Photoshop I) or Architecture 31A (Photoshop I) or Art 31A (Photoshop I) or Interior Design 31A (Photoshop I)		1 1/2

Photography 31B (Photoshop II) or Architecture 31B (Photoshop II) or Art 31B (Photoshop II) or Interior Design 31B (Photoshop II)	1 1/2
Photography 32A (Illustrator I) or Architecture 32A (Illustrator I) or Art 32A (Illustrator I) or Interior Design 32A (Illustrator I)	1 1/2
Photography 32B (Illustrator II) or Architecture 32B (Illustrator II) or Art 32B (Illustrator II) or Interior Design 32B (Illustrator II)	1 1/2
Total	21

(See Curriculum Changes 2004-05)

OFFICE TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT

(Revise: Replaces Computer Software Applications)
SOFTWARE SPECIALIST
CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Business 14 (Business Communications) or Business 15 (Business Correspondence) .. 3		
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Computer Application Systems 72A (Computer Keyboarding I)		1
Computer Application Systems 54A (Microsoft Excel® I)		3
Computer Application Systems 58 (Introduction to Microsoft Access®)		3
Computer Application Systems 88A (Microsoft Word® I)		3
Computer Science 7 (Introduction to Computer Programming Concepts) or Computer Science 10 (Introduction to Programming Using Visual BASIC)		3-4
Computer Science 91 (Introduction to Hypertext Markup Language (HTML))		2
Electives*		3
Total		23

**Three units may be selected from the following:*

- Computer Application Systems 54B (Microsoft Excel® II) 3 units
- Computer Application Systems 55 (Microsoft Office Integration) 3 units
- Computer Application Systems 82 (Designing Web Pages) 3 units
- Computer Application Systems 84 (Designing Business Graphics) 3 units
- Computer Application Systems 88B (Microsoft Word® II) 3 units

(Revise)

54A MICROSOFT EXCEL® I 3 UNITS
Introduction to spreadsheet applications using Excel 2000 on the PC...May be offered in Distance Education delivery format...

(Title, prerequisite, and unit change)

55 MICROSOFT OFFICE® INTEGRATION 3 UNITS
Hands-on experience integrating data and graphics with Word, Excel, and PowerPoint. Emphasis on developing and creating a variety of business documents including databases, brochures, and newsletters. Prerequisites: Computer Application Systems 54A and Computer Application Systems 88A. (Combined credit for Computer Application systems 55, 61, and 88A may not exceed 12 units.) 2 hours lecture, 2 hours laboratory. Transfer: CSU.

(Add)

84 DESIGNING BUSINESS GRAPHICS 3 UNITS
Design professional and customized business graphics, logos, business cards, letterheads, envelopes, mailing labels and brochures quickly and easily with Microsoft Publisher®. Use these publications to generate quality graphics for computer printers, commercial printing or web sites. Strongly recommended: Computer Application Systems 8 or Computer Science 8 or Computer Application Systems 50. 2 hours lecture, 2 hours laboratory.

**COMPUTER SCIENCE
(CSCI)**

CHANGES TO PAGE 56

(The following changes to Degrees and Certificates refer to the printed 2003-2005 Catalog; they supersede those published in the 2004-05 Addendum.)

DEGREE:

(Delete)

**AA— LINUX ADMINISTRATION AND WEBSITE
MANAGEMENT**

**AS— LINUX ADMINISTRATION AND WEBSITE
MANAGEMENT**

AA— LINUX SYSTEMS PROGRAMMING

AS— LINUX SYSTEMS PROGRAMMING

CERTIFICATE OF ACHIEVEMENT:

(Delete)

LINUX SYSTEMS ADMINISTRATION SPECIALIST

LINUX SYSTEMS PROGRAMMING SPECIALIST

ORACLE/SQL/SQL SERVER SPECIALIST

WEB SITE DEVELOPMENT SPECIALIST

(Delete)

CERTIFICATE OF COMPLETION:

MICROSOFT ACCESS/SQL DATABASE SPECIALIST

CHANGES TO PAGE 62

(Advisory change; add DE delivery format)

14 INTRODUCTION TO STRUCTURED PROGRAMMING IN C++ 4 UNITS
...Strongly recommended: Computer Science 7 (completed with a grade of "C" or higher). May be offered in Distance Education delivery format...

**DENTAL HYGIENE
(DHYG)**

CHANGES TO PAGE 66

DEGREE:

AA—DENTAL HYGIENE

SPECIAL APPLICATION REQUIRED

(Delete)

...(4) Completion of the Allied Health Professions Admission Test (AHPAT) by February 1 of the year of application.

(Add)

Basic Nutrition is required prior to completion of the Dental Hygiene Program. Completion of Nutrition 1 is strongly recommended prior to entrance into the Dental Hygiene Program.

**DENTAL HYGIENE
ASSOCIATE IN ARTS DEGREE**

SOPHOMORE YEAR FALL SPRING

(Unit change)

Dental Hygiene 82B (Clinical Experience Seminar II) 2

Total 56

CHANGES TO PAGE 68

(Revise hours/units)

82B CLINICAL EXPERIENCE SEMINAR II 2 UNITS
...2 hours. Transfer: CSU.

DIGITAL MEDIA (DIGM)

CHANGES TO PAGE 69

(Add)

36A FINAL CUT EXPRESS I 1 1/2 UNITS
Introduction to video editing using Final Cut Express software. Capturing digital video; combining video clips by means of cuts and transitions; adding titles and audio; outputting the finished product to disk. 1 hour lecture, 2 hours laboratory. Transfer: CSU.

(Add)

36B FINAL CUT EXPRESS II 1½ UNITS
Continuation of the content and skills introduced in Digital Media 36A (Final Cut Express I), with emphasis on creative imagery through use of video and audio filters, motion and speed effects, and compositing. Prerequisite: Digital Media 36A (*completed with a grade of "C" or higher*). 1 hour lecture, 2 hours laboratory. Transfer: CSU.

EARLY CHILDHOOD DEVELOPMENT (ECD)

CHANGES TO PAGE 71 & 72

(Revise)

65 ADMINISTRATION 3 UNITS
An overview of administrative principles and practices of Early Care and Education facilities; program planning, organizational structures, financial management, personnel policies, records, nutrition and food purchasing; relationships with families, community, and regulatory agencies; requirements of State and Federal programs; legal and ethical aspects. Prerequisite: Early Childhood Development 62 and 63 (*both completed with a grade "C" or higher*). 3 hours. Transfer: CSU.

(Revise)

68 PROGRAM SUPERVISION 3 UNITS
Management of Early Care and Education programs which includes: strategic planning, group dynamics, supervision of staff and volunteers, development of motivation and morale, leadership skills, functions of personnel, interviewing skills, interpersonal and group conflicts, staff evaluations, and working effectively with families and advisory boards. Designed to provide knowledge of methods and principles of working with adults in a supervisory capacity in Early Care and Education settings. Prerequisite: Early Childhood Development 62 and 63 (*both completed with a grade of "C" or higher*). **3 hours.** Transfer: CSU.

(Revise)

83 ADULT SUPERVISION 2 UNITS
Methods and principles of mentoring and supervising adults in Early Care and Education settings. Emphasis on the role of experienced classroom teachers who function as mentors to new teachers, while simultaneously addressing the needs of children, families and other staff. Prerequisite: Early Childhood Development 62 and 63 (*both completed with a grade of "C" or higher*). 2 hours. Transfer: CSU.

ELECTRONICS AND COMPUTER TECHNOLOGY (ELEC)

CHANGES TO PAGE 73–75

DEGREE:

AS—ELECTRONICS AND COMPUTER TECHNOLOGY

CERTIFICATE OF ACHIEVEMENT:

ELECTRONICS AND COMPUTER TECHNOLOGY

(Delete)

ELECTRONICS AUDIO/VIDEO TECHNOLOGY

CERTIFICATE OF COMPLETION:

ELECTRONICS ASSEMBLY

(Revise)

68 ELECTRONIC TEST EQUIPMENT 1 UNIT
...Prerequisite: Electronics and Computer Technology 60. 1 hour.

(New)

74A CISCO NETWORKING ACADEMY
CCNA 1 AND 2 5 UNITS

Fundamental principles and practices of computer network design, implementation, and operation, with emphasis on the TCP/IP protocol and its use in internetworking. The OSI model provides the principles and practices of routing in a TCP/IP network, including routing protocols, IP addressing, and router configuration and commands. The course includes the Cisco Networking Academy Semester 1 and 2 curriculum. 4 hours lecture, 3 hours laboratory.

(New)

74B CISCO NETWORKING ACADEMY
CCNA 3 AND 4 5 UNITS

Intermediate principles and practices of switching, routing, and network design in TCP/IP networks, including NAT, PAT, VLAN switching, EIGRP, OSPF and RIPv2 routing, router access control lists, and principles of local network design and management. Principles and practices of wide-area network design and implementation, including PPP, ISDN, frame relay, and principles of wide-area network management. The course includes the Cisco Networking Academy Semesters 2 and 3 curriculum. Prerequisite: Electronics and Computer Technology 74A (*completed with a grade of "C" or higher*). 4 hours lecture, 3 hours laboratory.

(New)
 75 NETWORKING LABORATORY 1/2-1 UNIT
 Networking configuration and troubleshooting laboratory. Emphasis is on Cisco hardware and software. Prerequisite: Electronics and Computer Technology 74A. 1 1/2 to 3 hours laboratory.

(Delete)
 81 AUDIO SYSTEMS 4 UNITS

(Delete)
 82 VIDEO SYSTEMS 4 UNITS

(Delete)
 84 SATELLITE AND CABLE SYSTEMS 2 UNITS

ENGINEERING (ENGR)

CHANGES TO PAGE 76-77

(Revise)

**ENGINEERING
 TRANSFER PROGRAM AND
 ASSOCIATE IN SCIENCE DEGREE
 (PENDING STATE APPROVAL)**

FRESHMAN YEAR	FALL	SPRING
Chemistry 1A (General College Chemistry)	5	
Mathematics 1 (Calculus I)	5	
Engineering 25 (Computational Methods for Engineers and Scientists)	3	
Mathematics 2 (Calculus II)	5	
Physics 4A (General Physics I)	5	

SOPHOMORE YEAR	FALL	SPRING
Engineering 36* (Engineering Mechanics - Statics)	3	
Mathematics 3 (Multivariable Calculus)	5	
Physics 4B (General Physics II)	5	
Engineering 43 (Engineering Circuit Analysis)	4	
Engineering 45* (Materials of Engineering)	3	
Mathematics 4 (Elementary Differential Equations)	3	
Physics 4C (General Physics III)	5	
Total		51

General Education Courses
 For specific General Education courses refer to the catalog section on graduation requirements.
Total minimum units required 60

* Students planning to transfer as Electrical or Computer Engineering majors may substitute a Computer Science computer-programming course for either, but not both, Engineering 36 or Engineering 45.

The above listing is a suggested sequence only. Some courses have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

This program is designed to satisfy core requirements for many engineering transfer majors. However, students should consult a counselor, and especially the catalog of the intended transfer institution for specific transfer requirements in the selected major. For example, many transfer institutions require Engineering Graphics for mechanical, civil, and industrial engineering majors.

General Education courses should be selected to meet the requirements of the intended transfer institution. Some transfer institutions require more general education units than that required by the A.S. degree.

(Delete)
 20 ENGINEERING GRAPHICS 2 UNITS

(Delete)
 21 DESCRIPTIVE GEOMETRY 3 UNITS

(New; replaces Engineering 20 and 21)
 22 ENGINEERING DESIGN GRAPHICS 3 UNITS

Introduction to the engineering-design process, and to technical-graphic communications tools used by engineers. Conceptual design of products. Development of spatial reasoning skills. Orthographic and axonometric projection-drawing techniques. Tolerance analysis for fabrication. Documentation of designs through engineering working-drawings. Use of AutoCAD Computer-Assisted Drawing software as a design tool. Basic CAD 3-dimensional solid-modeling. Strongly recommended: Mathematics 36 or 37, and English 1A or 52A. 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC.

(Add)
 25 COMPUTATIONAL METHODS FOR ENGINEERS AND SCIENTISTS 3 UNITS

(See also Mathematics 25, Physics 25)
 Methodology and techniques for solving engineering/science problems using numerical-analysis computer-application programs MATLAB and EXCEL. Technical computing and visualization using MATLAB software. Examples and applications from applied-mathematics, physical-mechanics, electrical circuits, biology, thermal systems, fluid systems, and other branches of science and engineering. Prerequisite: Mathematics 1. Strongly recommended: Computer Science 8. 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC.

(Course number changed from 31; revised prerequisite)
 32 PLANE SURVEYING 3 UNITS
 ...Prerequisite: Engineering 22 and...

(Replaces Engineering 35)
 36 ENGINEERING MECHANICS - STATICS 3 UNITS
 Force systems under equilibrium conditions; vector properties of forces, moments, couples, and resultants; rigid body structures; hydrostatics; shear and bending-moment diagrams; friction; centroids; area/mass moments of inertia. Graphical, algebraic, and numerical (computer) solutions of vector mechanics problems. Prerequisite: Physics 4A and Engineering 25 (*both completed with a grade of "C" or higher*). Strongly recommended: Mathematics 2 (concurrent enrollment encouraged). (Formerly

Engineering 35.) 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN ENGR 8).

(Replaces Engineering 44)

43 ENGINEERING CIRCUIT ANALYSIS 4 UNITS
Introduction to basic electrical circuit analysis. DC and AC circuit analysis methods, network theorems, voltage and current sources, resistors, operational amplifiers, capacitors and inductors. Natural and complete response of first and second order circuits. Steady-state sinusoidal circuit analysis, and power calculations. Basic instruments, and experimental techniques in Electrical Engineering: DC current/voltage supplies, analog/digital multiple-use meters, oscilloscopes, AC function generators. Measurements of resistance, inductance, capacitance, voltage, current, and frequency response, Prerequisites: Physics 4A and Engineering 25 (*both completed with a grade of "C" or higher*). Strongly recommended: Physics 4B (concurrent enrollment encouraged). (Formerly Engineering 44.) 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN ENGR 6), (CAN ENGR 12).

(Revise)

45 MATERIALS OF ENGINEERING 3 UNITS
Application of principles of chemistry and physics to the properties of engineering materials. The relation of microstructure to mechanical, electrical, thermal and optical properties of metals. Solid material phase equilibria and transformations. The physical, chemical, mechanical and optical properties of ceramics, composites, and polymers. Operation and use of materials characterization instruments and methods. Prerequisites: Chemistry 1A, Engineering 25, and Physics 4A (*all completed with a grade of "C" or higher*). 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN ENGR 4).

ENGLISH (ENGL)

CHANGES TO PAGE 79

(Revise)

7 CRITICAL THINKING AND WRITING ACROSS DISCIPLINES 3 UNITS
Develops critical thinking, reading, and writing skills as they apply to the analysis of primary and secondary nonfiction books, articles, and essays from a range of academic and cultural contexts. Theme based. Emphasis on the techniques and principles of effective written argument in research-based writing across disciplines. Prerequisite: English 1A (*completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: A3; IGETC: Area 1 group B; AA/AS.

CHANGES TO PAGE 82

(Revise)

115 FACULTY-STUDENT TUTORIAL: WRITING AND READING ACROSS THE CURRICULUM 1/2-3 units
(*English 115 and General Studies 115 may be repeated for a combined total of 3 times.*)

Self-paced, individualized instruction in reading and writing effectiveness. 2-6 hours laboratory.

ENGLISH As A SECOND LANGUAGE (ESL)

(Revise hours and description)

109 VOCABULARY SKILLS 1 UNIT
Build language proficiency by learning new vocabulary and developing vocabulary-building skills. 1 hour lecture, 1 hour laboratory.

(Revise title, hours, and description)

111A PRONUNCIATION 2 UNITS
Oral English with emphasis on strategies for clear pronunciation. 2 hours lecture, 1 hour laboratory.

(Add)

127 ESL PRONUNCIATION LAB 1/2 UNIT
Individual practice producing and responding to oral English with emphasis on clear pronunciation. 1 1/2 hours laboratory.

(Add)

128 FACULTY-STUDENT TUTORIAL—ESL 1/2-2 UNITS
(*May be repeated 3 times*)
Self-paced, individualized instruction in academic English oral and written communication skills for students who speak English as a second language. Focus on writing, reading, listening, and speaking skills needed in college courses. 1 1/2-6 hours laboratory.

ETHNIC STUDIES

**ETHNIC STUDIES
TRANSFER PROGRAM
AND ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR FALL SPRING

(Revise Title)

History 20 (The African-American Experience in U.S. History Through Reconstruction) 3

ETHNIC STUDIES

(Title Changes)

HISTORY 20	THE AFRICAN-AMERICAN EXPERIENCE IN U.S. HISTORY THROUGH RECONSTRUCTION	3 UNITS
HISTORY 21	THE AFRICAN-AMERICAN EXPERIENCE IN U.S. HISTORY SINCE RECONSTRUCTION	3 UNITS
HISTORY 22	MEXICAN-AMERICAN HISTORY IN THE DEVELOPMENT OF U.S. HISTORY FROM PRE-COLUMBIAN PERIOD TO THE PRESENT	3 UNITS

GENERAL STUDIES (GNST)**CHANGES TO PAGE 89****(Revise)**

- 115 FACULTY-STUDENT TUTORIAL:
WRITING AND READING ACROSS
THE CURRICULUM 1/2-3 units
(General Studies 115 and English 115 may be repeated for a combined total of 3 times.)

Self-paced, individualized instruction in reading and writing effectiveness. 2-6 hours laboratory.

(Add)

- 116 GATEWAY TO SUCCESS PROGRAM—
FACULTY-STUDENT TUTORIAL: 1/2-3 units
(May be repeated 3 times)

Self-paced instruction in effective reading, writing, and problem strategies in English, mathematics, and science. Tailored to individual student's needs and goals. Corequisite: enrollment in any Gateway to Success English, Mathematics, or Physics course. 2-6 hours.

HEALTH (HLTH)**CHANGES TO PAGE 92****(Revise)**

- 81 EMERGENCY MEDICAL
TECHNICIAN—BASIC 6 1/2 UNITS
...Alameda County Emergency Medical Services Agency. This course enrollment also requires: Evidence of immunization for measles, mumps, and rubella. Evidence of Hepatitis B immunization series completed or in progress. A current (within one year of course completion) negative TB test is also required. Current healthcare CPR certification is required. Corequisite: Health 83. Prerequisite: Health 61 (*completed with a grade of "C" or higher*)...

(Add)

- 500 EMERGENCY MEDICAL TRAINING 0 UNITS
Supplementary emergency medical training through supervised clinical experience and additional skills laboratory time. Students participate in ambulance and/or emergency department care and treatment of the emergently ill or injured. Corequisite: Health 81, Health 83, or equivalent. 0-10 hours laboratory.

HISTORY (HIST)**CHANGES TO PAGE 96****(Revise)**

- 5 CRITICAL THINKING IN HISTORY 3 UNITS
Introduction to critical thinking, reading, writing skills and

practical logic and reasoning through study of historical method. Emphasis on the techniques and principles of effective written and oral argument in case studies and historical problems. Includes the perspective of Middle Eastern and Arab Americans, European Americans, Asian Americans, African Americans and Mexican Americans. 3 hours. Transfer: CSU, UC; CSU/GE: A3; AA/AS.

(Title change and revised description)

- 20 THE AFRICAN-AMERICAN EXPERIENCE
IN U.S. HISTORY THROUGH
RECONSTRUCTION 3 UNITS

Survey of major themes and issues of the history of the United States with a particular focus upon African Americans and the gendered racial, ethnic, and socioeconomic diversity within the nation. Contacts between European peoples, African peoples and the indigenous peoples of the New World to the establishment of the British colonies in North America, the formation of the nation, its expansion westward and the social, political and economic factors which lead to division. Examination of the role of race and slavery as evolving concepts and practices affecting the nation's development. Analysis of the role of local, state and federal governments and the constitution as institutions of both consistency and change. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group A; IGETC: Area 4, AI, Group B; AA/AS.

(Title change and revised description)

- 21 THE AFRICAN-AMERICAN EXPERIENCE
IN U.S. HISTORY SINCE
RECONSTRUCTION 3 UNITS

Survey of major themes and issues in of the history of the United States, focusing upon African Americans and the gendered racial, ethnic, and socioeconomic diversity within the nation. Emergence of the country from the Civil War and Reconstruction, tracing such themes as industrialization, immigration and migration, Progressivism, the nation at economic crisis and at war, the rise of social movements and the social and political backlash against them, and the evolving diversity of the nation. Analysis of the role of the local, state, and federal governments and the Constitution as institutions of both consistency and change. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

INTERIOR DESIGN (INTD)**CHANGES TO PAGE 100****(Revised)**

- 62 KITCHEN AND BATHROOM DESIGN 3 UNITS
Survey of the field of kitchen and bathroom designs. Includes resources, materials, trends, costs and needs, both functional and aesthetic. 2 hours lecture, 3 hours laboratory.

(Revise)

105 BASIC MATHEMATICS 3 UNITS
 Fundamental concepts in arithmetic, including fractions, ratios, proportions, percents; order of operations, measurement, geometric formulas. Introduction to algebraic concepts, including signed numbers, properties of real numbers, algebraic expressions, linear equations, and graphs. May be offered in Distance Education delivery format. 3 hours lecture 0-1 hour laboratory.

(Revise; hours/unit change)

105L BASIC MATHEMATICS WITH LABORATORY 4 UNITS
 Fundamental concepts in arithmetic, including fractions, ratios, proportions, percents; order of operations, measurement, geometric formulas. Introduction to algebraic concepts, including signed numbers, properties of real numbers, algebraic expressions, linear equations, and graphs. Includes laboratory and study group time to reinforce arithmetic skills and build conceptual understanding. 3 hours lecture, 2 hours laboratory.

(Add)

500 MATHEMATICS LABORATORY 0 UNITS
 Extended study of various topics from Mathematics courses. Emphasis on developing mathematical problem-solving and reasoning skills. Corequisite: Mathematics 1, Mathematics 55, or equivalent. 1-10 hours laboratory.

MEDICAL ASSISTING (MEDA)

CHANGES TO PAGE 109-110

(Revise)

**MEDICAL ASSISTING
 ASSOCIATE IN ARTS DEGREE**

(Replace introductory paragraph as follows:)

Students completing in sequence the 31 units for the accredited Medical Assisting Certificate program are eligible to sit the American Association of Medical Assistants (AAMA) Certified Medical Assistant (CMA) exam.

SOPHOMORE YEAR FALL SPRING

(Revise)

Health 70A* (Community Cardiopulmonary Resuscitation) 1/2
 Health 70B* (Professional Cardiopulmonary Resuscitation) 1/2

(Add footnote)

**An American Heart Association Health Care Provider Card is required for MEDA 73A.*

(Delete)

All courses must be successfully taken in sequence to be eligible for graduation and be eligible to sit for the American Association of Medical Assistants Certified Medical Assistant (CMA) exam.

(Revised Certificate)

**MEDICAL ASSISTING
 CERTIFICATE OF ACHIEVEMENT**

(Revise first paragraph)

...(CMA—Certified Medical Assistant Exam).

(Revise third paragraph)

...English 102 is highly recommended.

FALL SPRING

(Revise)

Health 70A* (Community Cardiopulmonary Resuscitation) 1/2
 Health 70B* (Professional Cardiopulmonary Resuscitation) 1/2

(Add footnote)

**An American Heart Association Health Care Provider Card is required for MEDA 73A.*

MEDICAL ASSISTING (MEDA)

(Revise prerequisite)

70B CLINICAL SKILLS FOR THE MEDICAL ASSISTANT II 3 UNITS

...prerequisite: Health 51A (*may be taken concurrently*), Medical Assisting 70A and 75 (*completed with a grade of "C" or higher*)...

(Add)

500 SUPPLEMENTARY INSTRUCTION IN MEDICAL ASSISTING 0 UNITS
 Practice and competency check for Medical Assisting clinical skills. Corequisite: Medical Assisting 70A, 70B, or 75. Variable hours laboratory.

NURSING (NURS)

CHANGES TO PAGE 113-116

(The following changes to the Nursing degree refer to the printed 2003-2005 Catalog; they supersede those published in the 2004-05 Addendum.)

**NURSING
 ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR FALL SPRING

(Unit change)

Nursing 55 (Fundamentals of Nursing Practice) 8 1/2

SOPHOMORE YEAR FALL SPRING

(Unit change)

Nursing 60A (Adult Health I: Biopsychosocial Perspectives in the care of the Adult Client in the Hospital and the Community) 8 1/2

(Semester changes from Fall to Spring)

Nursing 60B (Adult Health II)	6
Nursing 60C (Adult Health III)	3 ¹ / ₂
Nursing 66 (Advanced Clinical Topics)	1 ¹ / ₂
Nursing 73* (Intravenous Therapy)	1
Sociology **	3

SPECIAL APPLICATION REQUIRED, including course prerequisites. See Counseling or Director of Nursing for specific deadlines and details.

Advanced standing status may be granted to students who have previously completed any portion of the defined nursing curriculum or its equivalent as determined by the Counselor/Coordinator for Applied Health or the Nursing Program Coordinator.

NURSING (NURS)**(Add)**

50 FUNDAMENTALS OF NURSING PRACTICE: REVIEW 5 UNITS

Introduction to fundamental concepts and practices in nursing care across the life span with emphasis on later-life issues. Application of the nursing process to the care of adult clients with the following chronic disorders: hypertension, cancer, diabetes mellitus, coronary artery disease, and cerebrovascular accidents. Beginning nursing skills include: principles of medical asepsis, body mechanics, standard precautions, hygienic and nutritional care, and administration of medications. Theoretical content provides information on the care of clients with diverse cultural backgrounds and spiritual needs as well as principles of therapeutic communication and mental health. Prerequisite: Formal referral by the California Board of Registered Nursing for the purpose of meeting requirements for eligibility to take the licensing examination for registered nursing (NCLEX-RN) or possession of a valid California LVN license, or inactive California registered nursing license, or transfer from another nursing program who has completed the equivalent of Nursing 55 with a "C" or higher. May not receive credit if Nursing 55 has been completed with a "C" or higher. 4 hours lecture, 2 hours laboratory. Transfer: CSU.

(Add)

51 NURSING OF THE CHILDBEARING FAMILY (OBSTETRICAL NURSING) 4 UNITS

Emphasis placed on the use of the nursing process in promoting adaptive processes necessary for coping with the health issues of the childbearing family: theory and clinical highlight the coping mechanisms for childbearing families. Focus is on cultural diversity and growth and development as they affect the physiological and psychological adaptation of families experiencing pregnancy, labor and birth, postpartum, and the newborn infant. Theory and clinical practice includes integration of assessment skills, growth and development, violence against women, nutrition, pharmacological concepts, ethical issues, and teaching strategies unique to childbearing families. Clinical focuses on care of clients in community and acute care settings. Prerequisite: Formal referral by the California Board of Regis-

tered Nursing for the purpose of meeting requirements for eligibility to take the licensing examination for registered nursing (NCLEX-RN). May not receive credit if Nursing 52 or 59 has been completed. 2 hours lecture, 6³/₄ hours laboratory. Transfer: CSU.

(Add)

52 NURSING OF THE CHILDBEARING FAMILY (PEDIATRICS NURSING) 4 UNITS

Emphasis placed on the use of the nursing process in promoting adaptive processes necessary for coping with the health issues of the childbearing family; theory and clinical highlight the coping mechanisms for childbearing families. Focus on cultural diversity and growth and development as they affect the physiological and psychological adaptation of families experiencing common health issues and problems of infants, children and adolescents. Theory and clinical practice includes integration of assessment skills, growth and development, family abuse issues, nutrition, pharmacological concepts, ethical issues, and teaching strategies unique to childbearing families. Clinical focuses on care of clients in community and acute care settings. Prerequisite: Formal referral by the California Board of Registered Nursing for the purpose of meeting requirements for eligibility to take the licensing examination for registered nursing (NCLEX-RN). May not receive credit if Nursing 51 or 59 has been completed. 2 hours lecture, 6³/₄ hours clinical. Transfer: CSU.

(Add)

53 PSYCHIATRIC NURSING 4 UNITS

Emphasis is on the application of the nursing process in the care of adults experiencing selected conditions requiring treatment in psychiatric care settings. Theory and clinical practice highlight the role of the nurse as a therapeutic agent (in both individual and group settings) in facilitating the client's mind/body adaptation and return to as healthy a state as is possible. Effects on cultural diversity, growth and development, and the importance of support systems in assisting the patient's response to illness in acute and community care agencies incorporated into health biopsychosocial assessment skills, nutrition, pharmacological and crisis intervention concepts, legal-ethical issues, and anger management (directed inward or towards the environment) into the care of these patients. Prerequisite: Nursing 70 (completed with a grade of "C" or higher) or formal referral by the California Board of Registered Nursing for the purpose of meeting requirements for eligibility to take the licensing examination for registered nursing (NCLEX-RN). May not receive credit if Nursing 60A has been completed. 2 hours lecture, 6³/₄ hours clinical. Transfer: CSU.

(Add)

54 CLINICAL TOPICS 1/2 UNIT

Study of selected clinical topics and associated nursing process related to nursing practice. Prerequisite: Nursing 59 or 60A, or the equivalent (completed with a grade of "C" or higher), or possession of a valid California LVN or RN license. 1 hour. Total weeks: 9. Transfer: CSU.

(Revise; supersedes 2004-05 change)

55 FUNDAMENTALS OF NURSING PRACTICE 8 1/2 UNITS

...Theory may be offered in Distance Education delivery format. 4 hours lecture, 13 1/2 hours clinical practice. Transfer: CSU.

(Revise; supersedes 2004-05 change)

60A ADULT HEALTH I-BIOPHYSICAL PERSPECTIVES IN THE CARE OF THE ADULT CLIENT IN THE HOSPITAL AND THE COMMUNITY 8 1/2 UNITS

...Theory may be offered in Distance Education delivery format. 4 hours lecture, 13 hours clinical.

(Revise; supersedes 2004-05 change)

69 GERONTOLOGICAL NURSING 1 UNIT

Nursing care of the aging client. Physical and psychosocial changes which occur with the aging process. Focus on successful adaptation to aging with emphasis on maintaining or regaining optimal health. Strategies for caring for the client who is coping with altered life styles as a result of problems associated with aging. Theories of aging and cultural influences on the aging process. Corequisite: Nursing 55 and 61 or Nursing 70 or possession of valid California LVN license. May be offered in Distance Education delivery format. 1 hour. Transfer: CSU.

(Delete)

71 MATERNITY NURSING PROBLEMS 1 1/2 UNITS

(Delete)

72 PEDIATRIC NURSING PROBLEMS 1 1/2 UNITS

(Replace with new course:)

72 WORK-STUDY CLINICAL PRACTICUM 2-6 UNITS

Application of theory and nursing skills in the health care setting, under the supervision of a licensed registered nurse and nursing faculty member while being employed by a cooperating hospital. The student will perform nursing skills mastered in previous nursing program courses, under the supervision of the staff registered nurse mentor/facilitator. Additional clinical practice in communicating with the client, family and health care team; developing and implementing nursing care plans. Course will be conducted in a cooperative work environment in which the student, the registered nurse mentor/preceptor and the nurse faculty member collaborate to enhance the student's experience, while promoting quality client care. Prerequisite: Nursing 55 (completed with a grade of "C" or higher); satisfactory completion of or concurrent enrollment in Nursing 59 or 60A. 1/2 to 6 hours laboratory. Transfer: CSU.

(Revise; supersedes 2004-05 change)

73 INTRAVENOUS THERAPY 1 UNIT

...Prerequisite: concurrent enrollment in the nursing program with eligibility for third or fourth semester of nursing curriculum or a valid LVN license. May be offered in Distance Education delivery format. 1 hour. Transfer: CSU.

(Add)

500 SUPPLEMENTAL INSTRUCTION: NURSING 0 UNITS

Supplemental clinical practice in patient assessment, math calculation, practice of nursing skills. Corequisite: Nursing 55, 59,

60A, 60B, 60C, 73, or Physiology 21, or equivalent. 0-10 hours laboratory.

PHOTOGRAPHY (PHOT)

CHANGES TO PAGE 118

(Add)

53A BEGINNING DIGITAL CAMERA USE 1 1/2 UNITS

Camera handling techniques, basic exposure principles, camera accessories, photographic composition. Survey of photography's multiple genres and its changing role in society and culture.

1 1/2 hours lecture. Transfer: CSU; AA/AS.

(Add)

53B DIGITAL DARKROOM 1 1/2 UNITS

Introduction to darkroom concepts and techniques common to both traditional and digital photography. Digital darkroom components such as CPUs, monitors, scanners, and printers. Digital darkroom techniques including calibration, and output. Survey of photography's multiple genres and its changing role in society and culture. Strongly recommended: Photo 53A. 1 hour lecture, 2 hours laboratory. Transfer: CSU.

PHYSICAL EDUCATION (PHED)

CHANGES TO PAGES 120 & 121

(The following changes to the Coaching certificates refer to the printed 2003-2005 Catalog; they supersede those published in the 2004-05 Addendum.)

COACHING

CERTIFICATE OF ACHIEVEMENT

FALL SPRING

(Semester changes from Fall to Spring)

Physical Education 8 (Sport in Society) or Physical Education 15 (Peak Performance through Mental Training) 3

(Revise Option)

Physical Education 61 (Principles of Coaching Interscholastic Sports: Beyond the Basics) or Physical Education 28 (Components of Physical Fitness-the Human Body) or Physical Education 60 (Sports Management) 3

(Correct to insert omitted units)

Physical Education 23 (Sports Officiating) or Physical Education 16 (College Success for Athletes) 1-2

Total 21 1/2-23

development over time and in various cultural contexts. Theatrical texts and performance techniques from the Greeks to contemporary American artists, with particular emphasis on multi-cultural theater of the 20th Century. Works from at least three of the following categories will be considered: African-American, Asian-American, Latino-American, Pacific Islander-American, Native-American, Middle-Eastern American theater artists. 3 hours. Transfer: CSU, UC; CSU/GE: C1; IGETC: Area 3; AA/AS.

(Revise course title, description)
 16 DRAMATIC WRITING I 3 UNITS
(May be repeated 3 times)
 Introduction to the basic principles of dramatic writing, including writing for theater, film, television, and for electronic media. Discussion and development of original material, resulting in the completion of a working script. 3 hours. Transfer: CSU; CSU/GE: C2.

(Revise course title, description, hours/units)
 30 EMERGING WORK 3 UNITS
(May be repeated 3 times)
 Participation in experimental workshop plays, original student scripts, and other projects, possibly leading to scheduled performances. 9 hours laboratory. Transfer: CSU, UC.

(Revise description, hours/units)
 47 COLLEGE THEATER ACTING 3 UNITS
(May be repeated 3 times)
 Participation in main season production or project. Enrollment is for duration of the production. 6 hours laboratory. Transfer: CSU, UC; AA/AS.

WELDING TECHNOLOGY (WELD)

DEGREE:
AS—WELDING TECHNOLOGY

CERTIFICATE OF COMPLETION:
INSPECTION AND PIPE WELDING
WELDING

(Revise)

WELDING			
ASSOCIATE IN SCIENCE DEGREE			
FRESHMAN YEAR	FALL	SPRING	
Industrial Technology 74* (Measurements and Calculations)			3
Welding Technology 63 (Welding Layout and Fitting)			2
Welding Technology 64A, (Beginning Arc, Flux-Core Welding and Blueprint Reading)			3
Welding Technology 65A (Beginning TIG, MIG, and Blueprint Reading)			3
Welding Technology 64B (Advanced Arc, Flux-Core Welding and Blueprint Reading)			3

Welding Technology 65B (Advanced TIG, MIG, and Blueprint Reading)			3
Welding Technology 67A (Welding Skills Laboratory)	2	or ...	2
Welding Technology 67B (Advanced Welding Skills Laboratory)	2	or ...	2
SOPHOMORE YEAR		FALL	SPRING
Welding Technology 69A** (Fabrication and Installing Piping Systems)			3
Welding Technology 66** (Welding Inspection and Testing)			2
Welding Technology 69B** (Advanced Pipe welding)			3
Total			29

General Education Courses
 For specific General Education courses refer to catalog section on Graduation

Total minimum units required 60

* Satisfies mathematics requirements for graduation.
 ** Offered alternative years.

The above list is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where prerequisite applies.

(Revise; changed from Certificate of Achievement to Certificate of Completion.)

WELDING
CERTIFICATE OF COMPLETION
This program is recommended for students preparing for entry-level welding position.

CORE COURSES	FALL	SPRING	
Industrial Technology 74* (Measurements and Calculations)			3
Welding Technology 63 (Welding Layout and Fitting)			2
Welding Technology 64A (Beginning Arc, Flux-Core Welding and Blueprint Reading)			3
Welding Technology 65A (Beginning TIG, MIG, and Blueprint Reading)			3
Welding Technology 67A (Welding Skills Laboratory)	2	or	2
Welding Technology 70 (Introduction to Welding)	2	or	2
Total			15

***Satisfies mathematics requirement for graduation**

The above list is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where prerequisite applies.

(Add)

**INSPECTION AND PIPE WELDING
CERTIFICATE OF COMPLETION**

CORE COURSES	FALL	SPRING
Welding Technology 64B (Advanced Arc, Flux-Core Welding and Blueprint Reading)		3
Welding Technology 65B (Advanced TIG, MIG and Blueprint Reading)		3
Welding Technology 66 (Welding Inspection and Testing)		2
Welding Technology 67B (Advanced Welding Skills Laboratory)	2	or 2
Welding Technology 69A (Fabrication and Installing Piping Systems)		3
Welding Technology 69B (Advanced Pipe Welding)		3
Total		16

The above list is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where prerequisite applies.

The **Welding Certificate of Completion** and the **Inspection and Pipe Welding Certificate of Completion**, combined, satisfy welding major requirements for the **Associate in Science Degree**.

WELDING TECHNOLOGY (WELD)

(Revise)

63 WELDING LAYOUT AND FITTING 2 UNITS
(May be repeated 3 times)

Theoretical and practical application of welding blueprints on welded assemblies and subassemblies. Welding power source classification and process identification, welding joint discontinuities, defects and distortion, AWS codes, standards and recommended procedures, use of jigs, fixtures, holding devices, and welding sequences techniques to control welding distortion, methods of straightening and restoring the dimensions of finished products. Laboratory includes Arc, MIG, TIG, and Flux-core welding, plasma and fuel cutting. Strongly recommended: Industrial Technology 74. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

(Revise)

64A BEGINNING ARC, FLUX-CORE WELDING AND BLUEPRINT READING 3 UNITS
(May be repeated 3 times)

Theory and practical application of: Arc Welding, Shielded Metal Arc Welding (SMAW) and Flux-Core Arc Welding (FCAW), plasma, carbon arc and flame cutting, American Welding Society (AWS) nomenclature and codes, welding metallurgical transformations, welding discontinuities and defects, welding electrodes and wire selection, hazardous materials regulation, general shop equipment usage, shop safety, and blueprint reading (as applied in manufacturing industry). Strongly recommended: Welding Technology 70. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

64B ADVANCED ARC, FLUX-CORE WELDING AND BLUEPRINT READING 3 UNITS

(May be repeated 3 times)

Advance theory and practical application of: Arc Welding, Shielded Metal Arc Welding (SMAW) and Flux-Core Arc Welding (FCAW), plasma, carbon arc and flame cutting, American Welding Society (AWS) nomenclature and codes, welding metallurgical transformations, welding discontinuities and defects, welding electrodes and wire selection, hazardous materials regulation, general shop equipment usage, shop safety, and blueprint reading (as applied in manufacturing industry). Strongly recommended: Welding Technology 64A or 70. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

(Revise)

65A BEGINNING TIG, MIG, AND BLUEPRINT READING 3 UNITS

(May be repeated 3 times)

Theory and practical application of fuel and inert gas welding of ferrous and non-ferrous metals and their alloys, oxyacetylene brazing, flame and plasma cutting, GTAW (Gas Tungsten Arc Welding) and GMAW (Gas Metal Arc Welding), skill development, AWS (American Welding Society) codes and standards, supplies selection, introduction to blueprint reading, proper and safe use of welding equipment and hazardous material regulations. Strongly recommended: Welding Technology 70. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

(Revise)

65B ADVANCED TIG, MIG, AND BLUEPRINT READING 3 UNITS

(May be repeated 3 times)

Advance theory and GTAW and GMAW skill development of ferrous and non-ferrous metals and their alloys in the vertical and overhead positions according to AWS codes and standards, advanced blueprint reading and fitting, oxyacetylene brazing, flame and plasma cutting, electrodes and wire selection, advance blueprint reading and practical interpretation of welding symbols, proper and safe use of shop and welding equipment, hazardous material regulations. Strongly recommended: Welding Technology 65A and 70. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

(Revise)

66 WELDING INSPECTION AND TESTING 2 UNITS
(May be repeated 3 times)

Theory and practical application of inspection tests using destructive and non-destructive methods, AWS (American Welding Society) welding codes specification, analysis of joint configuration, wire and electrodes selections, tensile strength, bend and hardness testing, dye penetrant, magnetic particle, radiographic, ultrasonic, and metallographic inspection. Strongly recommended: Welding Technology 65B or Industrial Technology 74. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

(Revise)

67A WELDING SKILLS LABORATORY 2 UNITS

(May be repeated 3 times)

Development and improvement of practical welding skills using SMAW, FCAW, MIG, GMAW, and GTAW. Strongly recommended: Welding Technology 64A. 6 hours laboratory.

(Revise)

67B ADVANCED WELDING SKILLS LABORATORY 2 UNITS

(May be repeated 3 times)

Advanced development and improvement of practical welding skills using SMAW, FCAW, MIG GMAW and GTAW. Strongly recommended: Welding Technology 64B and Welding Technology 65B or equivalent. 6 hours laboratory.

(Revise)

68 CERTIFICATION PREPARATION 1/2-2 UNITS

(May be repeated 3 times)

Welding process preparation for certification exams including the theory of American Welding Society D1.1, American Society of Mechanical Engineers Section IX, American Petroleum Institute 1104, includes laboratory practice in skills needed to take these exams. 1 1/2 to 6 hours laboratory.

(Revise)

69A FABRICATION AND INSTALLING PIPING SYSTEMS** 3 UNITS

(May be repeated 3 times)

Theory and practical application of: pipe joint preparation and design, API (American Petroleum Institute) and AWS (American Welding Society) welding codes specification for pipe and pipe fittings, analysis of joint configuration, plasma and flame cutting of pipes, wire and electrodes selections, beginning of pipe welding blue print and welding symbols, SMAW, GMAW, and GTAW of pipe joints, non-destructive and destructive test and qualitative concepts of evaluation. Prerequisite: Welding Technology 64B, 65B or equivalent. 1 hour lecture, 6 hours laboratory.

Offered alternate years.(Revise)**

69B - ADVANCED PIPE WELDING** 3 UNITS

(May be repeated 3 times)

Theory and practical application of pipe joint preparation and design; API (American Petroleum Institute) and AWS (American Welding Society) welding codes specifications for pipe and pipe fittings; geometric curve design for branched join of piping systems; wire and electrodes selections; advanced welding blue print and pipe welding symbols; SMAW, GMAW, and GTAW of pipe joints; metallurgical transformation of weld Heat Affected Area (HAA); welding discontinuities and defects; destructive and non-destructive testing; and methods of inspection and testing. Prerequisite: Welding Technology 69A or equivalent. 1 hour lecture, 6 hours laboratory.

Offered alternate years.(Revise)**

70 INTRODUCTION TO WELDING 2 UNITS

(May be repeated 3 times)

Welding industry fundamentals including introduction to SMAW, GMAW, GTAW, FCAW, oxyacetylene and braze welding, plasma and fuel gas cutting, general shop equipment usage, welding electricity fundamentals, shop safety, welding consumables identification, hazardous materials regulation, introduction to blueprint reading as applied in manufacturing industry. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

(Revise title and hours/units)

71 WELDING FOR ARTISTS 2 units

(May be repeated 3 times)

Provides fundamental welding and typical shop instruction and skills that artistically inclined individuals need to learn in order to be effective in the artistic creation process. Provides instruction on types of metals (aluminum, iron, steel, cast iron, bronze, stainless steel, etc.), mechanical fastenings, cutting and permanent joining together of metals and alloys through welding processes such as SMAW, GMAW, GTAW, FCAW, oxyacetylene and braze welding, plasma and fuel gas cutting. Includes general shop equipment usage, welding electricity fundamentals, shop safety, welding consumable identification, hazardous materials regulation. 1 hour lecture, 3 hours laboratory. Transfer: CSU; CSU/GE: C1.