CHABOT COLLEGE

CATALOG ADDENDUM

2004-2006

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Hayward, CA 94545
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WWW.CHABOTCOLLEGE.EDU
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

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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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 5 ........................ Last day to Add or Drop
  (NGR–No Grade of Record) online

September 6 .......................... CENSUS DAY

September 3-5 ................... Holiday Weekend – Labor Day
  No Instruction

September 6 ...................... Last day to drop with a "W" (Withdrawal)
  (in person)

September 8 ..................... Last day to drop with a "W" (Withdrawal)
  (online)

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
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.

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.
(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...
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
   1. 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)

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>AP Score</th>
<th>Subject Credit Given For:</th>
<th>Prerequisite Met For the Following Course(s)</th>
<th>Chabot Credits Issued For Graduation</th>
<th>1. AA/AS GE</th>
<th>2. CSU/GEB</th>
<th>3. IGETC Requirement Met</th>
</tr>
</thead>
</table>
| 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)

<table>
<thead>
<tr>
<th>Program</th>
<th>Transfer</th>
<th>Associate in Arts</th>
<th>Associate in Science</th>
<th>Certificate of Achievement</th>
<th>Certificate of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(From) Fire Service Technology</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>(To) Fire Technology</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(From) Fire Service Technology - Inspector</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(To) Fire Prevention Inspector</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

(Add)

<table>
<thead>
<tr>
<th>Program</th>
<th>Transfer</th>
<th>Associate in Arts</th>
<th>Associate in Science</th>
<th>Certificate of Achievement</th>
<th>Certificate of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology-Counseling - Human Services (Pending State Approval)</td>
<td>X</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Retail Management</td>
<td></td>
<td></td>
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<td>X</td>
</tr>
<tr>
<td>Retailing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
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.

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 (ARCH) (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

AUTOMOTIVE TECHNOLOGY (AUTO)

CHANGES TO PAGE 41 & 42

AUTOMOTIVE DIAGNOSTIC TECHNOLOGY
ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Technology 50</td>
<td>Automotive Technology 50</td>
</tr>
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</table>

(Automotive Fundamentals) ............... 2 1/2

Total .................................................. 37

FRESHMAN YEAR

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
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<td>Automotive Technology 50</td>
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</table>

(Automotive Fundamentals) ............... 2 1/2

Total .................................................. 44
CURRICULUM CHANGES 2004-05

AUTOMOTIVE MECHANICS
CERTIFICATE OF ACHIEVEMENT

FRESHMAN YEAR FALL SPRING
(Title and unit change)
Automotive Technology 50
(Automotive Fundamentals) ........................................... 2 1/2
Total .................................................................................. 2 1/2

AUTOMOTIVE SERVICE
CERTIFICATE OF ACHIEVEMENT

FRESHMAN YEAR FALL SPRING
(Title and unit change)
Automotive Technology 50
(Automotive Fundamentals) ........................................... 2 1/2
Total .................................................................................. 2 1/2

(Title and unit change)
50 AUTOMOTIVE FUNDAMENTALS 2 1/2 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. 1 1/2 hours lecture, 3 1/2 hours laboratory. Transfer: CSU.

(Title correction)
62 AUTOMOTIVE AIR CONDITIONING COOLING AND HEATING SYSTEMS 2 1/2 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)

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 50
(Introduction to Computer Application Systems) ................ 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 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.

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

RETAIL MANAGEMENT
CERTIFICATE OF ACHIEVEMENT

(Add)
Core Courses
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.

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

(Option change)
Option* ................................................................. 6-7
Total ........................................................................................................... 18-20

*Select at least six units from the following
(Add)
Business 10 (Business Law) 4 units

RETAILING
CERTIFICATE OF COMPLETION

This certificate is developed in accordance with the Western Association of Food Chains' new WAFC 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 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.

ACCOUNTING TECHNICIAN
CERTIFICATE OF ACHIEVEMENT

This certificate is developed in accordance with the Western Association of Food Chains' new WAFC 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.

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.
CURRICULUM CHANGES 2004-05

(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)

18 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
*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

**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)

**41** INTRODUCTION TO UNIX 2 UNITS

**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

**55A** MICROSOFT OFFICE APPLICATIONS INTEGRATION I

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Application Systems 70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(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)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business 14 (Business Communications) or Business 15 (Business Correspondence)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Computer Application Systems 88A (Microsoft Word® I)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Computer Application Systems 54A (Microsoft Excel® I)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Electives*</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td></td>
</tr>
</tbody>
</table>

**55B** MICROSOFT OFFICE APPLICATIONS INTEGRATION II

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Application Systems 72B (Elementary Computer Keyboarding II) and Computer Application Systems 72C (Computer Keyboarding III)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business 14 (Business Communications) or Business 15 (Business Correspondence)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Computer Application Systems 88A (Microsoft Word® I)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Computer Application Systems 54A (Microsoft Excel® I)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Electives*</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td></td>
</tr>
</tbody>
</table>
**CURRICULUM CHANGES 2004-05**

**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)  
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
Computer Science 91, et al. ................................................. 2

(Semester change from Spring to Fall)

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

| (Revise as follows) |
SOPHOMORE YEAR |
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 |
(Delete) |
Electronics and Computer Technology 63A (Project Development I) 2 |

| (Revise as follows) |
SOPHOMORE YEAR |
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 |
CHABOT COLLEGE CATALOG ADDENDUM 2004-2006

CURRICULUM CHANGES 2004-05

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)
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
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

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

SOPHOMORE YEAR
Geography 2 (Cultural Geography) .................. 3
Geography 8 (Introduction to Weather and Climate) ....................................... 3
Geography 20 (Introduction to Geographic Information Systems) .................... 3
Elective ................................................................................................. 3-4

Total ................................................................................................. 42

CHANGES TO PAGE 85

(Revise Title)
72 FIRE MANAGEMENT I ........................................................................ 2

(New course number—was 74)
74A FIRE INVESTIGATION 1A ................................................................. 2

(Revise Title)
91A WILDLAND FIREFIGHTING .......................................................... 2

CHANGES TO PAGE 88

SPANISH
ASSOCIATE IN ARTS DEGREE

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

CHANGES TO PAGE 89

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
A survey of United States history from its pre-colonial, indigenous origins through the end of Reconstruction. Emphasis on (1) distinctively American patterns of political, economic, social, intellectual and geographic developments, (2) the interaction amongst and the experiences of diverse racial, ethnic and socioeconomic groups in American history, and (3) the evolution of American institutions and ideals including the U.S. Constitution, representative democratic government, the framework of California state and local government, and the relationships between state/local government and the federal government. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D6, AI, Group A; IGETC: Area 4, AI, Group A; AA/AS; (CAN HIST 7) with HIST 7: (CAN HIST SEQ B).

A survey of United States history from 1877 to the present with a special emphasis on the interaction amongst and the experiences of diverse racial/ethnic (African Americans, European Americans, Native Americans, Chicano/Latino Americans, Asian Americans, and Middle Eastern Americans), gender and socioeconomic groups in American History. Includes analysis of (1) the U.S. Constitution as a living document in the context of historical change, and (2) significant issues related to California state and local governments. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS; (CAN HIST 10) with HIST 10: (CAN HIST SEQ B).

Historical development of California, including Spanish exploration and settlement and the Mexican Revolution. Transformation of California under United States control: the American conquest, the Gold Rush, and dynamic expansion to the present day. Includes Native Americans, Mexican Americans, European Americans, Asian Americans and African Americans groups. Emphasis on political, economic, and social factors which transformed American California from a relatively simple rural society to a highly complex ethnically diversified agricultural-industrial system. Analysis of historical issues and current problems. 3 hours. Transfer: CSU, UC; CSU/GE: D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

Integration of Mexican American history and United States history and politics. Mexican American history from the pre-Columbian period through the present, including the development and experience of political, cultural and economic institutions within the context of the United States. Comparison of the experiences of Mexican Americans with other diverse social, racial and ethnic groups in American history. Major periods include European colonization, native cultures and slavery, the U.S.-Mexico War, industrialization of the United States, westward movement, racial and ethnic relations, and political
(Revised title)

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: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

Changes to Page 97

Changes to Page 98

(Add)

INDEPENDENT STUDY

INDEPENDENT STUDY ½ - 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

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)

LIBRARY STUDIES (LIBR) (To) LIBRARY STUDIES (LIBS)

MASS COMMUNICATIONS (MCOM)

CHANGES TO PAGE 106

MATHEMATICS (MATH)

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 3/4 - 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

FRESHMAN YEAR 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

SOPHOMORE YEAR FALL SPRING
Nursing 60B (Adult Health II) .............................................. 6
Nursing 60C (Adult Health III) ........................................... 3/2
Nursing 66 (Advanced Clinical Topics) .......................................... 1/2
Nursing 73* (Intravenous Therapy) ............................................. 1
Sociology ** ............................................................................. 3
SPECIAL APPLICATION REQUIRED:

Prerequisites: for admission to this program include: (1) completion of special application; (2) 2.7 overall college grade point 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 ADULTHEALTH 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 ADULTHEALTH II 6 UNITS
...Theory may be offered in Distance Education delivery format. 4 hours lecture,...

(Revision) 60C ADULTHEALTH 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. 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.
### CURRICULUM CHANGES 2004-05

**APPLIES TO 2004-05 ONLY.**

SEE THE 2005-06 SECTION FOR REVISIONS.

---

### CURRICULUM CHANGES 2004-05

**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.

---

### CURRICULUM CHANGES 2004-05

**Revision**

70 NURSING THEORY: LVN-RN TRANSITION 1½ UNITS

...Transfer CSU.

---

### CURRICULUM CHANGES 2004-05

**Revision**

73 INTRAVENOUS THERAPY 1 UNIT

...May be offered in Distance Education delivery format. 2 hours.

---

### CURRICULUM CHANGES 2004-05

**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.

---

### CURRICULUM CHANGES 2004-05

**Revision**

75 FLUID AND ELECTROLYTES 1 UNIT

...May be offered in Distance Education delivery format. 1 hour.

---

### CURRICULUM CHANGES 2004-05

**Title change**

1 NUTRITION 3 UNITS

---

### CURRICULUM CHANGES 2004-05

**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.

---

### CURRICULUM CHANGES 2004-05

**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.

---

### CURRICULUM CHANGES 2004-05

**Add transfer**

70 NURSING THEORY: LVN-RN TRANSITION 1½ UNITS

...Transfer CSU.

---

### CURRICULUM CHANGES 2004-05

**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.

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### CURRICULUM CHANGES 2004-05

**Changes to page 118**

**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

---

### CURRICULUM CHANGES 2004-05

**Changes to page 120**

**COACHING CERTIFICATE OF ACHIEVEMENT**

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education 8 (Sport in Society)</td>
<td>Physical Education 15 (Peak Performance through Mental Training)</td>
</tr>
<tr>
<td>Physical Education 23 (Sports Officiating)</td>
<td>Physical Education 16 (College Success for Athletes)</td>
</tr>
</tbody>
</table>

**Total** ........................................................................... 21½-23
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
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)
(APPROVED MAY 2005)
AS — PSYCHOLOGY—COUNSELING—HUMAN SERVICES
(PENDING STATE APPROVAL)
(APPROVED MAY 2005)

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 (Multicultural/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 10A (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) ………… 5 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
Psychology 18 (Psychology of the African American Experience) ................................................ 3 units
Sign Language 64 (ASL, Beginning Sign Language) ........ 3 units
Sign Language 65 (ASL, Intermediate Sign Language) ........ 3 units
Sociology 3 (American Cultural and Racial Minorities) .......... 3 units
Sociology 4 (Marriage and Family Relations) .................... 3 units
Sociology 8 (Human Sexuality) ........................................ 3 units
Sociology 10 (Introduction to Asian American Studies) ....... 3 units
Sociology 30 (Social Gerontology) ................................. 3 units
Sociology 31 (Dependency in Old Age) ............................ 3 units
Sociology 32 (Social Policy, Programs and Services for Elders) .................................................. 3 units
Sociology 33 (Sociobiology of Aging) ............................... 3 units

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

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

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

**Select a total of 5 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

**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

Transfer: CSU; CSU/GE: D3; IGETC: Area 4C; AA/AS.
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.
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**
  - Chemistry 30B
  - Physics 4B, 4C, 5

- **C. HUMANITIES**
  - English 34
  - Photography 53A

- **D. SOCIAL AND BEHAVIORAL SCIENCES**
  - History 27*
  - Political Science 2*
  *May be used to fulfill one area only.

- **E. HEALTH AND PHYSICAL EDUCATION**
  - 1. Health Education
  - American Institutions: Complete 3 SEM UNITS
  - Physical Education 4

  **AMERICAN INSTITUTIONS**
  - Complete a minimum of 6 SEM UNITS
  *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*
  - Mathematics 54, 54L

- **B. NATURAL SCIENCE**
  - Chemistry 30B
  - Physics 4B, 4C, 5

- **C. HUMANITIES**
  - English 34
  - Photography 53A

- **D. SOCIAL AND BEHAVIORAL SCIENCES**
  - 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
  - 2. Physical Education Complete 1 SEM UNIT (Add)

  **AMERICAN CULTURES**
  - Humanities 10
  - Theater Arts 14

  **MATHEMATICS PROFICIENCY**
  - 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)

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>AP Score</th>
<th>Subject Credit Given For:</th>
<th>Prerequisite Met For the Following Course(s)</th>
<th>Chabot Credits Issued For Graduation</th>
<th>1. AA/AS GE</th>
<th>2. CSU/GEB</th>
<th>3. IGETC Requirements Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMISTRY</td>
<td>3, 4, 5</td>
<td>Chemistry 1A</td>
<td>Biology 2A, Chemistry 1B, Engineering 45</td>
<td>5 units</td>
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<td>1. Satisfies Area B</td>
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<td>2. 6 units toward Area B1 and B3 (lab)</td>
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<td>3. Satisfies Area 5, Group A (no lab units)</td>
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<td>2. 3 units toward Area D2</td>
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<td>3. 3 units toward Area 4</td>
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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)

<table>
<thead>
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<th>Program</th>
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<th>Associate in Science</th>
<th>Certificate of Achievement</th>
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(Add)

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<td>Automotive Chasis Technology</td>
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<td>Geography</td>
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*Replaces the degrees starred in the next chart.*
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<th>Associate in Science</th>
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<th>Certificate of Completion</th>
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<td>Oracle/SQL/SQL Server Specialist</td>
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<td>Web Site Development Specialist</td>
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</table>
(Revise)

5 ART HISTORY — RENAISSANCE TO MODERN

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

(Revise)

6 MUSEUM STUDIES

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:C1; AA/AS.

(Revise)

13A ACRYLIC PAINTING—BEGINNING I

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

(Revise)

13B ACRYLIC PAINTING—BEGINNING II

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

...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

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

(Revise)

AUTOMOTIVE TECHNOLOGY (ATEC)

DEGREE:

AS—AUTOMOTIVE TECHNOLOGY

CERTIFICATE OF ACHIEVEMENT: (ALL PENDING STATE APPROVAL)

AUTOMOTIVE MAINTENANCE TECHNOLOGY

AUTOMOTIVE ENGINE PERFORMANCE TECHNOLOGY

AUTOMOTIVE DRIVETRAIN TECHNOLOGY

AUTOMOTIVE CHASSIS TECHNOLOGY

(Delete degree)

AUTOMOTIVE DIAGNOSTIC TECHNOLOGY

ASSOCIATE IN SCIENCE DEGREE

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 (Powertrain 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 .............................................................................. 20 1/2
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 DRIVE TRAIN 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

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 ........................................................................ 20 1/2

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 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

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 ........................................................................ 20 1/2

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

Total ........................................................................ 20 1/2

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.
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.

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<tr>
<td>61A</td>
<td>Fuel Induction Systems</td>
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<tr>
<td>63A</td>
<td>Introduction to Engines and Machining Processes</td>
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<td>63B</td>
<td>Engines, Machining and Assembly Processes</td>
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<tr>
<td>64A</td>
<td>Manual Drive Train and Axle Assemblies</td>
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<tr>
<td>64B</td>
<td>Automatic Transmission/Transaxle Assemblies</td>
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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)

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<tr>
<td>61B</td>
<td>Fuel Induction, Emission and Computer Control Systems II</td>
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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 50 or 55 (may be taken concurrently). Strongly recommended: Automotive Technology 61A, Industrial Technology 74. 2 1/2 hours lecture, 5 1/2 hours laboratory.

(Revised title and description)

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<tr>
<td>63B</td>
<td>Engines, Machining and Assembly Processes</td>
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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. 1 1/2 hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised title and description)

<table>
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<td>64A</td>
<td>Manual Drive Train and Axle Assemblies</td>
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</tr>
<tr>
<td>64B</td>
<td>Automatic Transmission/Transaxle Assemblies</td>
<td>3</td>
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</table>

Diagnosis, inspection, repair, and adjustment of automatic manual drive train and axle assemblies. Includes manual transmissions/transaxes, 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. 1 1/2 hours lecture, 5 hours laboratory. Transfer: CSU.

(Revised)

<table>
<thead>
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<td>61A</td>
<td>Fuel Induction Systems</td>
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<td>Introduction to Engines and Machining Processes</td>
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<tr>
<td>63B</td>
<td>Engines, Machining and Assembly Processes</td>
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<td>64A</td>
<td>Manual Drive Train and Axle Assemblies</td>
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</tr>
<tr>
<td>64B</td>
<td>Automatic Transmission/Transaxle Assemblies</td>
<td>3</td>
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</table>

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 Recommend: Industrial Technology 74 (may be taken concurrently). 1 1/2 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). 1½ 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). 1½ 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 71A and 71B 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. 2½ hours lecture, 5½ 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. 2½ hours lecture, 5½ 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)

CHABOT COLLEGE CATALOG ADDENDUM 2004-2006
(REvised 10-7-05) 45
CURRICULUM CHANGES 2005-06

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.) ........................................ 9

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**
- 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

**SPRING**
- 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**
- 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

**SPRING**
- 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.

**ACCOUNTING TECHNICIAN**

**CERTIFICATE OF ACHIEVEMENT**

**CORE COURSES**

**FALL**
- 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

**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.

**RETAIL MANAGEMENT**

**CERTIFICATE OF ACHIEVEMENT**

**CORE COURSES**

**FALL**
- 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

**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** ........................................................................... 18-19

*Select a minimum of 6 units from the following options:
- Business 10 (Business Law) 4 units

**MARKETING**

**CERTIFICATE OF ACHIEVEMENT**

**CORE COURSES**

**FALL**
- Business 1A (Principles of Accounting I) or Business 7 (General Accounting) .......... 3-4
- Business 21 (Human Resources Management) .................. 3

**SPRING**
- Option* ................................................................................. 6

**Total** ........................................................................... 18-19

**MANAGEMENT**

**CERTIFICATE OF COMPLETION**

**FALL**
- Business 1A (Principles of Accounting I) or Business 7 (General Accounting) .......... 3-4
- Business 21 (Human Resources Management) .................. 3

**SPRING**
- Option* ................................................................................. 6

**Total** ........................................................................... 18-19

*Select a minimum of 6 units from the following options:
- Business 10 (Business Law) 4 units

**MARKETING**

**CERTIFICATE OF COMPLETION**

**CORE COURSES**

**FALL**
- Business 1A (Principles of Accounting I) or Business 7 (General Accounting) .......... 3-4
- Business 21 (Human Resources Management) .................. 3

**SPRING**
- Option* ................................................................................. 6

**Total** ........................................................................... 18-19

*Select a minimum of 6 units from the following options:
- Business 10 (Business Law) 4 units
(Add)

**SMALL BUSINESS MANAGEMENT CERTIFICATE OF COMPLETION**

**CORE COURSES**

**FALL**

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

**SPRING**

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...

**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)

**Changes to Page 53-55**

(The following changes to Degrees and Certificates refer to the printed 2003-2005 Catalog; they supersede 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)

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

**FRESHMAN YEAR**

**FALL**

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 1) ... 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**

Computer Application Systems 58
(Introduction to Microsoft Access®) ........ 3
Computer Science 91 (Introduction to Hypertext Markup Language (HTML)) ... 2
Electives* .............................................................. 3

**SPRING**

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**

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

**SPRING**

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**

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

**SPRING**

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 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**

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 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

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

SOFTWARE SPECIALIST
CERTIFICATE OF ACHIEVEMENT

(CRevise: Replaces Computer Software Applications)

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 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® 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 ex-
ceed 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 bro-
chores quickly and easily with Microsoft Publisher®. Use these
publications to generate quality graphics for computer printers,
commercial printing or web sites. Strongly recommended: Com-
puter Application Systems 8 or Computer Science 8 or Com-
puter Application Systems 50. 2 hours lecture, 2 hours laboratory.

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

CERTIFICATE OF COMPLETION:
(Delete)
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 rec-
ommended 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 1½ 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  1 1/2 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 "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 "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 Semesters 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 "C" or higher). 4 hours lecture, 3 hours laboratory.
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-modelling. 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.

(Delete)

32 PLANE SURVEYING 3 UNITS

(Revises)

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

FRESHMAN YEAR

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

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.
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).

Changes to Page 79

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

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)

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
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

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

Ethnic Studies

History 21 (The African-American Experience in U.S. History Since Reconstruction) .................................................. 3

History 22 (Mexican-American History in the Development of U.S. History from Pre-Columbian Period to the Present) ....... 3
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 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 A; IGETC: Area 4, AI, Group B; AA/AS.

HEALTH (HLTH)

Changes to Page 92

(Revise)

81 EMERGENCY MEDICAL TECHNICIAN—BASIC 6/2 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

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.
(Revised Degree)

MATHEMATICS
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS OR
ASSOCIATE IN SCIENCE DEGREE*
*(Remove Pending State Approval)

FRESHMAN YEAR

FALL SPRING
(Revise options)

Choose at least one other course from the following ............. 3-5

- Computer Science 14 (Introduction to Structured Programming In C++)
- Computer Science 15 (Object-Oriented Programming Methods in C++)
- Computer Science 20 (Introduction to Data Structures in C++)
- Computer Science 21 (Computer Organization And Assembly Language Programming)
- Engineering 25 (Computational Methods for Engineers And Scientists)
- Engineering 36 (Engineering Mechanics—Statics)
- Engineering 43 (Engineering Circuit Analysis)
- Engineering 45 (Materials of Engineering)
- Math 25 (Computational Methods for Engineers And Scientists)
- Physics 4A (General Physics I)
- Physics 25 (Computational Methods for Engineers And Scientists)

MATHEMATICS (MATH)

(Add)

25 COMPUTATIONAL METHODS FOR ENGINEERS AND SCIENTISTS 3 UNITS
(See also Engineering 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.

(Revise)

31 COLLEGE ALGEBRA 3 UNITS

Preparation for Calculus for Business and Social Science students. Functions and graphs: polynomials, rational functions, exponential and logarithmic functions, circles, parabolas, binomial theorem, sequences and series. Solving rational, radical, quadratic in form, exponential and logarithmic equations. Prerequisite: Mathematics 54 or 54L, 55 or Mathematics 55B (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics Assessment process. 3 hours. Transfer: CSU, UC; CSU/GE: B4; ITETC: Area 2; AA/AS.

(Revise units and description)

32 CALCULUS FOR BUSINESS AND SOCIAL SCIENCES 5 UNITS

Functions and their graphs; differential and integral calculus of polynomial, rational, exponential and logarithmic functions; partial derivatives. Applications in business, economics and the life and social sciences. Prerequisite: Mathematics 55 or 55B (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics Assessment process. 5 hours. 0-1 hours laboratory. Transfer: CSU, UC; CSU/GE: B4; ITETC: Area 2; AA/AS; (CAN MATH 34).

(Revise prerequisite)

33 FINITE MATHEMATICS 4 UNITS

...Introduction to probability. Applications in business, economics and the social sciences...

(Revise prerequisite)

40 CONCEPTS OF MATHEMATICS 3 UNITS

...Prerequisite: Mathematics 54, 54L, 55 or 55B...

(Revise prerequisite)

43 INTRODUCTION TO PROBABILITY AND STATISTICS 4 UNITS

...Prerequisite: Mathematics 54, 54L, 55 or 55B...

(Add)

54 APPLIED INTERMEDIATE ALGEBRA 5 UNITS

Functions in the context of real data; rates of change of linear functions; linear systems; laws of rational exponents; mathematical models (including graphs) using exponential, logarithmic, power, and linear, quadratic and other polynomial functions; solution of exponential and logarithmic equations. Prerequisites: Mathematics 65 or Mathematics 65B or Mathematics 65L (completed with a grade of "C or higher") or an appropriate skill level demonstrated through the Mathematics Assessment process. May not receive credit if Mathematics 54L has been completed. 5 hours lecture, 0-1 hour laboratory. Transfer: AA/AS.

(Add)

54L APPLIED INTERMEDIATE ALGEBRA WITH LABORATORY 5 1/2 UNITS

Functions in the context of real data; rates of change of linear functions; linear systems; laws of rational exponents; mathematical models (including graphs) using exponential, logarithmic, power, and linear, quadratic and other polynomial functions; solution of exponential and logarithmic equations. Includes laboratory and study group time to reinforce and enhance the learning of applied intermediate algebra skills. Prerequisites: Mathematics 65 or Mathematics 65B or Mathematics 65L (completed with a grade of "C or higher") or an appropriate skill level demonstrated through the Mathematics Assessment process. May not receive credit if Mathematics 54 has been completed. 5 hours lecture, 1 1/2 hours laboratory. Transfer: AA/AS.
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.

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)...................... 1/2
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 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 52 or 59 has been completed. 2 hours lecture, 6 1/4 hours clinical. 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 childrearing family; theory and clinical highlight the coping mechanisms for childrearing 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 childrearing 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, 6 1/4 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 51 or 59 has been completed. 2 hours lecture, 6 1/4 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  8/2 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  8/2 UNITS
...Theory may be offered in Distance Education delivery format. 4 hours lecture, 13 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  1/2 UNITS

(Delete)
72  PEDIATRIC NURSING PROBLEMS  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  1/2 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  1/2 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
COACHING
CERTIFICATE OF COMPLETION

(Revise)
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

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

Total ......................................................... 15\(\frac{1}{2}\)-17

CHANGES TO PAGE 123 & 124

(Revise)
PHED 30-50
Remove Corequisite: Physical Education 2AP (Athletic
Performance Training).

(Add)
61 PRINCIPLES OF COACHING INTER-
SCHOLASTIC SPORTS: BEYOND THE
BASICS 3 UNITS

Coaching beyond the basics: ethics, physical training theories
and management principles. Research into successful leadership
principles, skills and philosophies. Coaching effectiveness and
team building dynamics. May be offered in Distance Education
delivery format. 3 hours.

PHYSICS (PHYS)

CHANGES TO PAGES 124 & 125

PHYSICS
TRANSFER PROGRAM AND
ASSOCIATE IN SCIENCE DEGREE

(Revise semesters)
FRESHMAN YEAR FALL SPRING
Mathematics 1 (Calculus I) ....................... 5
Mathematics 2 (Calculus II) ....................... 5
Physics 4A (General Physics I) ................... 5

SOPHOMORE YEAR FALL SPRING
(Add)
Physics 5 (Modern Physics) ....................... 3

(Revise)
TOTAL ......................................................... 36

(Revise)
4A GENERAL PHYSICS I 5 UNITS
Introduction to the principles of Newtonian mechanics using
calculus as needed. Vectors, kinematics, dynamics, energy,
momentum, rotation, oscillations and gravitation. Prerequi-
site: Mathematics 1...

(REVISE)
4B GENERAL PHYSICS II 5 UNITS
Mechanical waves, electric fields, electric currents, magnetic fields,
induced currents, and alternating circuits. Prerequisite: Physics
4A and Mathematics 2...

(REVISE)
4C GENERAL PHYSICS III 5 UNITS
Electromagnetic waves, electromagnetic spectrum including
reflection, refraction, diffraction, interference, polarization,
fluids, sound waves and thermodynamics. Prerequisite: Physic
4B and Mathematics 3...

(Add)
5 MODERN PHYSICS 3 UNITS
Special relativity and modern physics, including photons,
quantum mechanics, atoms, solids, nuclear physics, particle
physics and cosmology. Prerequisite: Physics 4B (completed with
grade of "C" or higher). 3 hours. Transfer: CSU/UC; CSU/GE: B1

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

(See also Engineering 25, Mathematics 25)
Methodology and techniques for solving engineering/science
problems using numerical-analysis computer-application pro-
grams MATLAB and EXCEL. Technical computing and visual-
ization 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.

(Rubric Change from THEA to THTR)

THEATER ARTS (THTR)

CHANGES TO PAGES 136 & 137

(Revise course number, title, description)
1 INTRODUCTION TO ACTING 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 commit-
ment. (Formerly THEA 1A) 3 hours. Transfer: CSU, UC; CSU/
GE: C1; AA/AS; (CAN DRAM 8).

(Revise course number, title, description)
2 THEORY AND PRACTICE OF ACTING 3 UNITS
Exploration of the theory and practice of acting, focusing on
more complex characterizations and character analyses. Theat-
rical styles and period acting with emphasis on monologues and
scenes. Voiceover concepts. (Formerly THEA 1B) 3 hours.
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. 9 hours laboratory. Transfer: CSU, UC; AA/AS.

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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.
development over time and in various cultural contexts. Theatri-
cal texts and performance techniques from the Greeks to con-
temporary 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, includ-
ing 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 perfor-
mances. 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)

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 67B (Advanced
Welding Skills Laboratory) ............... 2 or .. 2
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**

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
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</thead>
<tbody>
<tr>
<td>Welding Technology 64B (Advanced Arc, Flux-Core Welding and Blueprint Reading)</td>
<td>3</td>
</tr>
<tr>
<td>Welding Technology 65B (Advanced TIG, MIG and Blueprint Reading)</td>
<td>3</td>
</tr>
<tr>
<td>Welding Technology 66 (Welding Inspection and Testing)</td>
<td>2</td>
</tr>
<tr>
<td>Welding Technology 67B (Advanced Welding Skills Laboratory)</td>
<td>2 or 2</td>
</tr>
<tr>
<td>Welding Technology 69A (Fabrication and Installing Piping Systems)</td>
<td>3</td>
</tr>
<tr>
<td>Welding Technology 69B (Advanced Pipe Welding)</td>
<td>3</td>
</tr>
</tbody>
</table>

**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**.

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**Welding Technology (WELD)**

(Revise)

**63 WELDING LAYOUT AND FITTING**

(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**

(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.

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

(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**

(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**

(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**

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

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.

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.

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.

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.