

**EL CAMINO COLLEGE**  
**MINUTES OF THE COLLEGE CURRICULUM COMMITTEE**  
**April 26, 2016**

**CALL TO ORDER**

Meeting called to order at 2:35 p.m. by Chair Carr.

**Members:**

*Present:* S. Bosfield, W. Brownlee, T. Bui, A. Carr, M. Chaban, A. Cornelio, A. Hockman,  
L. Houske, K. Iino, S. Rodriguez, A. Sharp

*Absent:* S. Bartiromo, E. French-Preston, V. Nemie, J. Shankweiler

**Ex-Officio Members:**

*Present:* Q. Chapman, L. Clowers, P. McDermott, P. Pelayo

*Absent:* M. Lipe, A. Osanyinpeju, L. Suekawa, L. Young

**Guests:** V. Bruce, S. Cocca, W. Cox, M. Fields, L. Linka, P. Sorunke, R. Wells

**APPROVAL OF MINUTES**

The minutes of the College Curriculum Committee of April 12, 2016, are under review.

**CURRICULUM REVIEW**

**A. Full Program Review**

The committee reviewed the following program proposals, which are ready for final action:

1. Computer Information Systems A.S. Degree
2. Fire Academy Certificate of Achievement
3. Studio Arts AA-T

**B. Full Course Review**

The committee reviewed the following courses, which are ready for final action:

1. Art 102AH (ART 102AH)
2. Computer Information Systems 133 (CIS 133)
3. Communication Studies 275 (COMS 275)
4. Engineering Technology 18 (ETEC 18)
5. Engineering Technology 18A (ETEC 18A)
6. Engineering Technology 18B (ETEC 18B)
7. Fashion 1 (FASH 1)
8. Music 116 (MUSI 116)
9. Music 117 (MUSI 117)

**C. Standard Review/Consent Agenda Proposals**

The committee reviewed the following courses, which are ready for final action:

1. Automotive Collision Repair/Painting 2A (ACRP 2A)

2. Art 181 (ART 181)
3. Art 102C (ART 102C)
4. Astronomy 12 (ASTR 12)
5. Business 3 (BUS 3)
6. Business 4 (BUS 4)
7. Business 20 (BUS 20)
8. Business 21 (BUS 21)
9. Computer Aided Design/Drafting 32 (CADD 32)
10. Computer Aided Design/Drafting 33 (CADD 33)
11. Computer Aided Design/Drafting 37 (CADD 37)
12. Computer Information Systems 140 (CIS 140)
13. Computer Information Systems 142 (CIS 142)
14. Computer Information Systems 143 (CIS 143)
15. Cosmetology 16 (COSM 16)
16. Computer Science 2 (CSCI 2)
17. Computer Science 3 (CSCI 3)
18. Computer Science 16 (formerly CSCI 16abcd)
19. Dance 161 (DANC 161)
20. Dance 167 (DANC 167)
21. Fashion 28 (FASH 28)
22. Law 20 (LAW 20)
23. Microbiology 33 (MICR 33)
24. Machine Tool Technology 16 (MTT 16)
25. Music 96 (formerly MUSI 96abcd)

The committee reviewed the following course inactivations, which are ready for final action:

1. Business 52A (BUS 52A)
2. Business 52B (BUS 52B)

## **CURRICULUM DISCUSSION**

### **A. Full Program Review**

It was moved by L. Houske, seconded by A. Sharp, that the committee approve the program proposals for Studio Arts AA-T, Computer Information Systems A.S. Degree, and Fire Academy Certificate of Achievement. Motion carried.

### **B. Full Course Review**

#### **Business Division**

##### Computer Information Systems 133 – Mashup JavaScript, jQuery and AJAX

Edit *Course Review* in the Course Checklist: Provide additional information for clarity purposes in the conditions of enrollment justification statement.

It was moved by A. Sharp, seconded by K. Iino, that the committee approve the course proposal for Computer Information Systems 133. Motion carried.

## **Fine Arts Division**

### Music 116 – History of Rock Music

Edit *Course Summary* in the Course Checklist: Replace “.... composers/performers” with “composers, performers” in the catalog description.

### Music 117 – Music of the Beatles

Edit *Evaluation Methods and Assignments* in the Course Checklist: Update the College-Level Critical Thinking Assignment #1 to read “.... three versions of the same song.”

It was moved by W. Brownlee, seconded by A. Sharp, that the committee approve the new course proposals for Art 102AH and Communication Studies 275. Motion carried.

It was moved by K. Iino, seconded by A. Sharp, that the committee approve course proposals for Music 116 and 117. Motion carried.

## **Industry and Technology Division**

Fire and Emergency Technology 13A and 13B were tabled.

It was moved by W. Brownlee, seconded by A. Cornelio, that the committee approve course proposals for Fashion 1, Engineering Technology 18, 18A, and 18B. Motion carried.

## **C. Standard Review/Consent Agenda Proposals**

It was moved by A. Cornelio, seconded by A. Hockman, that the committee approve the standard review/consent agenda proposals, including the conditions of enrollment changes and inactivation of Business 52A and 52B. Motion carried.

## **VICE PRESIDENT’S REPORT**

Vice President Academic Affairs – Dr. Shankweiler – No report

## **CHAIR’S REPORT**

College Curriculum Committee Chair – A. Carr

The committee was reminded to provide names of new faculty appointed to serve on the College Curriculum Committee effective fall 2016.

## **CURRICULUM ADVISOR REPORT**

Curriculum Advisor – Q. Chapman

As a reminder, curriculum plans for fall 2016 are due. Be prepared to highlight curriculum plans and share the strategies your division uses to coordinate curriculum reviews at the next meeting on May 3, 2016. A preliminary curriculum review timeline for fall 2016 will be presented to the committee at the next meeting. The Chancellor’s Office is preparing to release a new version of the Curriculum Handbook this summer.

**ANNOUNCEMENTS** – No report

## **ADJOURNMENT**

Chair Carr called a motion to adjourn the meeting. A. Cornelio moved, K. Iino seconded, and the motion carried. The meeting adjourned at 3:20 p.m.

**EL CAMINO COLLEGE  
COLLEGE CURRICULUM COMMITTEE  
April 26, 2016  
Approved Curriculum Changes for 2017-2018**

---

**BUSINESS**

**CTE TWO-YEAR COURSE REVIEW**

1. Business 3 – QuickBooks
2. Business 4 – Cost Accounting
3. Law 20 – Paralegal Seminar

**CTE TWO-YEAR COURSE REVIEW; DISTANCE EDUCATION REVIEW**

1. Business 21 – Human Resources Management
2. Computer Information Systems 140 – Data Communications Cisco 1

**CTE TWO-YEAR COURSE REVIEW; REMOVE DISTANCE EDUCATION**

1. Business 20 – Business Management

**CTE TWO-YEAR COURSE REVIEW; DISTANCE EDUCATION REVIEW,  
CHANGES IN CONDITIONS OF ENROLLMENT (Prerequisite)**

1. Computer Information Systems 142 – Local Area Network (LAN) Switching and Wireless Cisco 3

*Current Status/Proposed Changes*

Prerequisite: Computer Information Systems 141 with a minimum grade of C or equivalent experience

*Recommendation*

Prerequisite: Computer Information Systems 141 with a minimum grade of C or equivalent experience

2. Computer Information Systems 143 – Accessing the WAN - Cisco 4

*Current Status/Proposed Changes*

Prerequisite: Computer Information Systems 142 with a minimum grade of C or equivalent experience

*Recommendation*

Prerequisite Computer Information Systems 142 with a minimum grade of C or equivalent experience

**CTE TWO-YEAR COURSE REVIEW; DISTANCE EDUCATION REVIEW;  
CHANGES IN CONDITIONS OF ENROLLMENT (Prerequisite, Recommended  
Preparation), CATALOG DESCRIPTION**

1. Computer Information Systems 133 – Mashup JavaScript, jQuery and AJAX  
*Current Status/Proposed Changes*

~~Recommended Preparation: Computer Information Systems 13 or Computer Information Systems 19 or equivalent experience~~

Prerequisite: Computer Information Systems 13 with a minimum grade of C or equivalent experience

~~Students examine the~~ The fundamental concepts and structures of programming for the Web using client-side markup languages and scripting languages. Students learn how to use standard documentation, testing and debugging techniques, and web based programming tools, such as the JavaScript programming language are covered. Students will develop web programs using conditional structures, variables, classes, objects, functions, events, arrays, windows, and forms in order to create eBusiness applications. Standard documentation, testing and debugging techniques, used in the creation of eBusiness applications will be covered. Additional topics include the an introduction to jQuery, XML, databases as and JSON data structures, and AJAX technologies used in the development of web based programming, and utilizing web services.

Note: Letter grade or pass/no pass option.

*Recommendation*

Prerequisite: Computer Information Systems 13 with a minimum grade of C or equivalent experience

The fundamental concepts and structures of programming for the Web using client-side markup languages and the JavaScript programming language are covered. Students will develop web programs using conditional structures, variables, classes, objects, functions, events, arrays, windows, and forms. Standard documentation, testing and debugging techniques, used in the creation of eBusiness applications will be covered. Additional topics include an introduction to jQuery, XML and JSON data structures, and AJAX technologies used in web-services.

Note: Letter grade or pass/no pass option.

## CHANGE IN MAJOR; PROGRAM CATALOG DESCRIPTION

### 1. Computer Information Systems A.S. Degree

#### *Current Status/Proposed Changes*

The program is intended for students interested in information systems and can lead to ~~a degree or certificate of competence, and career placement or advancement~~ career opportunities as software specialists, web programmers, database developers, systems analysts, or network administrators. A variety of courses will enable students to ~~design graphical user interfaces~~ learn project management, perform systems analysis and design, ~~develop Web pages~~ create business software including websites, desktop applications, mobile apps, manage business data using spreadsheets and databases, and implement and maintain cybersecurity measures, handle help desk incident reports, and install and maintain small and large LANs (local area networks). Students will demonstrate their proficiency through performance in laboratory exercises and objective examinations. Program assessment is measured by program completion and periodic program review. ~~The program leads to career opportunities as software specialists, Web programmers, database developers, systems analysts, or network administrators.~~

#### *Recommendation:*

The program is intended for students interested in information systems and can lead to career opportunities as software specialists, web programmers, database developers, systems analysts, or network administrators. A variety of courses will enable students to learn project management, perform systems analysis and design, create business software including websites, desktop applications, mobile apps, manage business data using spreadsheets and databases, implement cybersecurity measures, handle help desk incident reports, and install and maintain small and large LANs (local area networks). Students will demonstrate their proficiency through performance in laboratory exercises and objective examinations. Program assessment is measured by program completion and periodic program review.

## INACTIVATE COURSES

1. Business 52A – Microsoft Word Applications I
2. Business 52B – Microsoft Word Applications II

## FINE ARTS

### NEW COURSES

1. Art 102AH – Honors History of Western Art: Prehistoric through Gothic  
Units: 3.0      Lecture: 3 hours      Faculty Load: 20.00%  
Recommended Preparation: eligibility for English 1A  
Grading Method: Letter  
Credit Status: Associate Degree Credit  
CSU Transfer  
Proposed UC Transfer  
El Camino College AA/AS General Education – Area 3  
Proposed CSU General Education – Area C1  
Proposed IGETC – Area 3A

This course, designed for students in the Honors Transfer Program, surveys the history of Western art from the prehistoric era through the Gothic period with an emphasis on the relation of artworks to historical and cultural contexts by examining the effects of shifting social, political, philosophical, and spiritual paradigms on the production of art. This course is enriched through more extensive reading, writing, and research assignments.

2. Communication Studies 275 – Gender Communication  
Units: 3.0      Lecture: 3 hours      Faculty Load: 20.00%  
Recommended Preparation: eligibility for English 1A  
Grading Method: Letter  
Credit Status: Associate Degree Credit  
CSU Transfer  
Proposed UC Transfer  
El Camino College AA/AS General Education – Area 2A  
Proposed CSU General Education – Area D4  
Proposed IGETC – Area 4D

This course is an examination of communication patterns existing between males and females. The course is designed to integrate theory and practice, and to heighten students' awareness of the importance of gender as a communication variable. Emphasis is placed on perception, verbal and nonverbal communication in interpersonal, small group and public settings. Communication problems relating to gender are addressed along with listening, assertiveness, negotiation and other conflict management strategies.

## **COURSE REVIEW**

1. Art 102C – History of Western Art - 19th Century to Contemporary Times
2. Art 181 – Beginning Sculpture
3. Dance 161 – Tap Dance I - Beginning
4. Dance 167 – Social and Ballroom Dance

## **COURSE REVIEW; CHANGES IN COURSE NUMBER, CATALOG DESCRIPTION NOTE**

### *Current Status/Proposed Changes*

1. Music ~~96abcd~~ – Cooperative Work Experience Education

Through a set of learning objectives established by the student, supervisor, and instructor, each student will work with and learn from experts in the Music field. These experiences will enable students to improve job skills, analyze career opportunities and requirements, and compare them to personal abilities and career expectations.

Note: Transfer limitations apply.

Note: The total units earned for CWEE may not exceed 16 units.

### *Recommendation*

Music 96 – Cooperative Work Experience Education

Through a set of learning objectives established by the student, supervisor, and instructor, each student will work with and learn from experts in the Music field. These experiences will enable students to improve job skills, analyze career opportunities and requirements, and compare them to personal abilities and career expectations.

Note: Transfer limitations apply.

Note: Transfer limitations apply.

## **COURSE REVIEW; DISTANCE EDUCATION REVIEW, CHANGES IN CONDITIONS OF ENROLLMENT (Recommended Preparation)**

1. Music 117 - Music of the Beatles

### *Current Status/Proposed Changes*

Recommended Preparation: ~~eligibility for English 1A~~ English A

### *Recommendation*

Recommended Preparation: English A

**COURSE REVIEW; DISTANCE EDUCATION REVIEW, CHANGES IN CONDITIONS OF ENROLLMENT (Recommended Preparation), CATALOG DESCRIPTION**

1. Music 116 – History of Rock Music

*Current Status/Proposed Changes*

Recommended Preparation: ~~eligibility for English 1A~~ English A

This course focuses on the techniques, styles, composers, performers, and evolution of rock and roll from the 1950s to the present. Emphasis is placed on the roots and early development of rock music, its stylistic trends, influential artists, and the impact of technology on rock music throughout the years.

*Recommendation*

Recommended Preparation: English A

This course focuses on the techniques, styles, composers, performers, and evolution of rock and roll from the 1950s to the present. Emphasis is placed on the roots and early development of rock music, its stylistic trends, influential artists, and the impact of technology on rock music throughout the years.

**CHANGE IN MAJOR; COURSE REQUIREMENTS**

1. Studio Arts AA-T

*Current Status/Proposed Changes*

**Major Requirements**

**Units**

Required Core: 12 units

ART 102B	History of Western Art - Proto-Renaissance to 19th Century	3
ART 130	Two-Dimensional Design I	3
ART 160	Three-Dimensional Design	3
ART 110	Drawing Fundamentals I	3

List A: 3 units

ART 102A	History of Western Art - Prehistoric to Gothic	3
ART 102C	History of Western Art - 19th Century to Contemporary Times	3
ART 205A	History of Asian Art - India and Southeast Asia	3
or		
ART 205B	History of Asian Art - China, Korea, and Japan	3
ART 207	Art History of Mexico and Central and South America	3
or		
ART 209	History of African Art	3

List B: 9 units

ART 217	Life Drawing I	3
or		
ART 210	Drawing Fundamentals II	3
ART 129	Fundamentals of Color	3
ART 131	Lettering and Typography I	3
ART 132	Advertising Design I	3
<u>ART 133</u>	<u>Graphic Design</u>	<u>3</u>
ART 141	Digital Art	3
ART 143	Digital Design and Publishing	3
ART 144	Three-Dimensional Computer Animation	3
ART 152	Rendering	3
ART 161	Beginning Ceramics	3
ART 173	Introduction to Jewelry and Metalsmithing	3
ART 181	Beginning Sculpture	3
ART 187	Printmaking I – Etching and Relief	3
ART 218	Life Drawing II	3
ART 219	Watercolor Painting I	3
ART 220	Watercolor Painting II	3
ART 222	Fundamentals of Painting I	3
ART 223A	Fundamentals of Painting II	3
<u>ART 223B</u>	<u>Fundamentals of Painting III</u>	<u>3</u>
ART 224	Life Painting I	3
ART 225	Life Painting II	3
ART 230	Two-Dimensional Design II	3
ART 231	Lettering and Typography II	3
ART 232	Advertising Design II	3
<u>ART 233</u>	<u>Graphic Design II</u>	<u>3</u>
ART 262	Intermediate Ceramics	3
ART 274	Jewelry Fabrication	3
ART 282	Life Sculpture	3
ART 283	Bronze Casting	3
<u>ART 288</u>	<u>Printmaking II – Etching and Relief</u>	<u>3</u>
<u>ART 289</u>	<u>Lithography</u>	<u>3</u>
<u>ART 290</u>	<u>Screen Printing</u>	<u>3</u>
PHOT 101	Elementary Photography	2
PHOT 102	Basic Photography	3
PHOT 202	Intermediate Photography	4
<b>Total Units: 24</b>		

## INDUSTRY AND TECHNOLOGY

### CTE TWO-YEAR COURSE REVIEW

1. Computer Aided Design/Drafting 32 – Product Modeling with CATIA
2. Computer Aided Design/Drafting 33 – Analyses and Simulations with CATIA
3. Computer Aided Design/Drafting 37 – Advanced CATIA Functions
4. Engineering Technology 18B – Engineering Design and Development II
5. Fashion 28 – Visual Merchandising
6. Machine Tool Technology 16 – General Metals

### CTE TWO-YEAR COURSE REVIEW; CHANGE IN COURSE NUMBER

#### *Current Status/Proposed Changes*

1. Cosmetology 16~~abcd~~ – Cosmetology Applications

#### *Recommendation*

Cosmetology 16 – Cosmetology Applications

### CTE TWO-YEAR COURSE REVIEW; CHANGES IN CATALOG DESCRIPTION

1. Automotive Collision Repair/Painting 2A – Basic Automotive Painting - Refinishing  
*Current Status/Proposed Changes*

In this course, students are introduced to automotive painting and refinishing and the skills needed for employment in industry. Topics covered include safety practices, industry repair standards, ~~v~~Volatile ~~o~~Organic ~~e~~Compound (VOC) recording, surface identification, surface preparation, abrasives, metal conditioning, vehicle masking, primers, and spray equipment.

~~Note: The two course sequence of Automotive Collision Repair/Painting 2A and 2B is equivalent to four semesters of Automotive Collision Repair/Painting 5abcd.~~

#### *Recommendation*

In this course, students are introduced to automotive painting and refinishing and the skills needed for employment in industry. Topics covered include safety practices, industry repair standards, Volatile Organic Compound (VOC) recording, surface identification, surface preparation, abrasives, metal conditioning, vehicle masking, primers, and spray equipment.

## **CTE TWO-YEAR COURSE REVIEW; CHANGES IN CONDITIONS OF ENROLLMENT (Prerequisite)**

### 1. Engineering Technology 18 – Engineering Design and Development

*Current Status/Proposed Changes*

Prerequisite: Engineering Technology 10 or 10A and 10B;

or Engineering Technology 12 or 12A and 12B;

~~and Engineering Technology 14 or 14A and 14B;~~

~~and Engineering Technology 16 or 16A and 16B;~~ or Computer Aided Design/Drafting 5 with a minimum grade of C in prerequisite

*Recommendation*

Prerequisite: Engineering Technology 10 or 10A and 10B;

or Engineering Technology 12 or 12A and 12B;

or Computer Aided Design/Drafting 5 with a minimum grade of C in prerequisite

### 2. Engineering Technology 18A – Engineering Design and Development I

*Current Status/Proposed Changes*

Prerequisite: Engineering Technology 10 or 10A and 10B;

or Engineering Technology 12 or 12A and 12B;

~~and Engineering Technology 14 or 14A and 14B;~~

~~and Engineering Technology 16 or 16A and 16B~~ or Computer Aided Design/Drafting 5 with a minimum grade of C in prerequisite

*Recommendation*

Prerequisite: Engineering Technology 10 or 10A and 10B;

or Engineering Technology 12 or 12A and 12B;

or Computer Aided Design/Drafting 5 with a minimum grade of C in prerequisite

## **CTE TWO-YEAR COURSE REVIEW; CHANGES IN CONDITIONS OF ENROLLMENT (Recommended Preparation), CATALOG DESCRIPTION**

### 1. Fashion 1 - Career Opportunities in Fashion

*Current Status/Proposed Changes*

Recommended Preparation: English A

This course surveys career opportunities in the fashion industry, including fashion design and fashion merchandising. Students will explore career choice possibilities in terms of their personality traits and will study the characteristics, technology and global interrelationships of segments of the fashion industry through readings, classroom exercises and industry contacts. Students will prepare ~~for~~ a job search packet portfolio, including preparation of a resume, cover letter and business cards.

*Recommendation*

Recommended Preparation: English A

This course surveys career opportunities in the fashion industry, including fashion design and fashion merchandising. Students will explore career choice possibilities in terms of their personality traits and will study the characteristics, technology and global interrelationships of segments of the fashion industry through readings, classroom exercises and industry contacts. Students will prepare a job search packet portfolio, including preparation of a resume, cover letter and business cards.

**CHANGE IN CERTIFICATE; COURSE REQUIREMENTS, TOTAL UNITS**

1. Fire Academy Certificate of Achievement

*Current Status/Proposed Changes*

<b>Certificate Requirements</b>		<b>Units</b>
FTEC 1	Fire Protection Organization	3
<u>FTEC 6</u>	<u>Building Construction for Fire Protection</u>	<u>3</u>
FTEC 15	Fire Academy	<del>12</del> <u>15</u>
FTEC 144	Emergency Medical Technician	6

~~three units from:~~

<del>FTEC 2</del>	<del>Fire Prevention Technology</del>	<del>3</del>
<del>FTEC 3</del>	<del>Fundamentals of Personal Fire Safety and Survival</del>	<del>3</del>
<del>FTEC 5</del>	<del>Fire Behavior and Combustion</del>	<del>3</del>
<del>FTEC 6</del>	<del>Building Construction for Fire Protection</del>	<del>3</del>
<del>FTEC 9</del>	<del>Fire Apparatus and Equipment</del>	<del>3</del>
<del>FTEC 10</del>	<del>Hazardous Materials</del>	<del>3</del>
<del>FTEC 11</del>	<del>Arson Detection and Control</del>	<del>3</del>
<del>FTEC 19</del>	<del>Fire Service Entrance Preparation</del>	<del>3</del>
<del>FTEC 20</del>	<del>Fire Protection Equipment and Systems</del>	<del>3</del>

**Total Units: ~~24~~ 27**

Other Requirements: ~~Completion of Candidate Physical Agility Test (CPAT) or Fire Fighter Physical Agility Test (FPAT)~~

1. Pass a Fire Fighter Physical Agility Test (FPAT) or Candidate Physical Agility Test (CPAT) within the last 6 months as required by the California State Fire Marshal's Office
2. Pass the El Camino College Fire Physical Qualification Test
3. Pass a physical examination according to the National Fire Protection Association (NFPA) Standard #1582

*Recommendation*

<b>Certificate Requirements</b>		<b>Units</b>
FTEC 1	Fire Protection Organization	3
FTEC 6	Building Construction for Fire Protection	3
FTEC 15	Fire Academy	15
FTEC 144	Emergency Medical Technician	6
<b>Total Units: 27</b>		

Other Requirements:

1. Pass a Fire Fighter Physical Agility Test (FPAT) or Candidate Physical Agility Test (CPAT) within the last 6 months as required by the California State Fire Marshal's Office.
2. Pass the El Camino College Fire Physical Qualification Test.
3. Pass a physical examination according to the National Fire Protection Association (NFPA) Standard #1582.

## **MATHEMATICAL SCIENCES**

### **CTE TWO-YEAR COURSE REVIEW**

1. Computer Science 3 –Computer Programming in Java

### **COURSE REVIEW; CHANGE IN CATALOG DESCRIPTION**

1. Computer Science 2 – Introduction to Data Structures

*Current Status/Proposed Changes*

In this course, the C++ computer language is used to demonstrate methods of representing and manipulating data structures. The student will learn the object-oriented problem solving skills necessary to read, write, and correct complex computer programs, and to make important design decisions. Topics include lists, stacks, queues, trees, searching, sorting, modeling and algorithm analysis.

*Recommendation*

In this course, the C++ computer language is used to demonstrate methods of representing and manipulating data structures. The student will learn the object-oriented problem solving skills necessary to read, write, and correct complex computer programs, and to make important design decisions. Topics include lists, stacks, queues, trees, searching, sorting, modeling and algorithm analysis.

### **CTE TWO-YEAR COURSE REVIEW; CHANGES IN DESCRIPTIVE TITLE, CATALOG DESCRIPTION**

*Current Status/Proposed Changes*

1. Computer Science 16 – Assembly Language Programming for the x86 (IBM PC) and Compatible Processors

This course includes detailed coverage of Assembly Language programming, ~~based on the IBM compatible personal computer~~ for x86 processors. Topics include hexadecimal arithmetic, two's complement arithmetic, memory organization, addressing modes, procedure calls, the ~~stackframe~~ stack frame, macros, calling assembly language procedures from ~~Pascal~~ C or C/C++, recursion, BIOS and DOS interrupts, the floating point unit and instructions, and the debugger.

*Recommendation*

Computer Science 16 – Assembly Language Programming for x86 (IBM PC) Processors

This course includes detailed coverage of Assembly Language programming for x86 processors. Topics include hexadecimal arithmetic, two's complement arithmetic, memory organization, addressing modes, procedure calls, the stack frame, macros, calling assembly language procedures from C or C++, recursion, BIOS and DOS interrupts, the floating point unit and instructions, and the debugger.

## NATURAL SCIENCES

### **COURSE REVIEW; CHANGES IN CONDITIONS OF ENROLLMENT (Prerequisite)**

1. Astronomy 12 – Astronomy Laboratory

*Current Status/Proposed Changes*

Prerequisite: Astronomy 20 or Astronomy 20H; or Astronomy 25 or Astronomy 25H with a minimum grade of C in prerequisite or concurrent enrollment

*Recommendation*

Prerequisite: Astronomy 20 or Astronomy 20H; or Astronomy 25 or Astronomy 25H with a minimum grade of C in prerequisite or concurrent enrollment

2. Microbiology 33 – General Microbiology

*Current Status/Proposed Changes*

Prerequisite: Biology 10 or Biology 10H; or Anatomy 30 or Anatomy 32; or Anatomy and Physiology 34A or Physiology 31; and Chemistry 4 or Chemistry 4H; or Chemistry 1A or Chemistry 20 or Chemistry 21A ~~or equivalent~~ with a minimum grade of C in prerequisite or equivalent

*Recommendation*

Prerequisite: Biology 10 or Biology 10H; or Anatomy 30 or Anatomy 32; or Anatomy and Physiology 34A or Physiology 31; and Chemistry 4 or Chemistry 4H; or

Chemistry 1A or Chemistry 20 or Chemistry 21A with a minimum grade of C in prerequisite or equivalent