LIBRARY SCIENCE

(LIB SCI)

LIB SCI 101 Library Research Methods (1) UC/CSU
This course teaches the student to develop efficient research skills utilizing traditional print and selected electronic library resources. These skills will optimize the student’s educational experience and enhance his or her ability to realize independent life-long personal benefits from using the library. Standard research techniques are emphasized, and both general and specialized information sources are examined. Students will gain experience and confidence using the various types of reference works in the library and on the Internet to write a successful research paper including note-taking and outlining skills, and selected documentation style. UC Transfer Credit Limit: A maximum of one course from LIB SCI 101 or LIB SCI 103.

LIB SCI 102 Internet Research Methods (1) UC/CSU
Successful completion of this course will enable the student to find and assess information found on the Internet. The student will also be able to devise effective search strategies in the pursuit of academic and personal interests utilizing approved principles of access, and standardized evaluation criteria.

LIB SCI 103 Information Literacy: Search Strategies, Tools, and Resources (2) UC/CSU
This course combines modern, up-to-date search strategies with the latest research tools to enable the student to access pertinent information and data from both print and electronic research resources. UC Transfer Credit Limit: A maximum of one course from LIB SCI 101 or LIB SCI 103.

LIB SCI 104 Advanced Internet Research (1) CSU
This course provides extensive coverage of the Internet and the World Wide Web using specialized and meta-searchers to find resources on the web and on the so-called “deep web.” The student will learn to monitor the growth and direction of the internet, and learn how the internet affects society’s views of privacy, intellectual property rights, social interaction, and communication.

MANAGEMENT

(MGMT)

(Also see Business.)

MGMT 001 Principles of Management (3) CSU
This course provides an introduction to the principles of management. A detailed analysis of basic managerial functions including planning, organizing, leading and controlling in a business or administrative environment is made.

MGMT 002 Organization and Management Theory (3) CSU
This course provides an introduction to the theories of organization and management. Organizational structure, technology and systems; administrative behavior, communications, motivation and leadership, organizational development, change and manpower development are examined.

MGMT 006 Public Relations (3) CSU
This course covers essentials for organizing and operating a public relations program. Topics include the study of relations with the community, customers, stockholders, news media, and employees. Multicultural relations and public relations writing are also covered.

MGMT 013 Small Business Entrepreneurship (3) CSU
This course discusses the challenges of entrepreneurship, and provides the tools to enhance success. The course provides a detailed treatment of strategic planning for small businesses, an in-depth coverage of creating and managing the business, new sources of small business funding, effective decision making, and hands-on experience for creating a business.

MANUFACTURING & INDUSTRIAL TECHNOLOGY

(MIT)

MIT 220 Introduction to Robotics (3)
This (formerly CS900) is an introductory course in robotics emphasizing hands-on experience to build a basic functional robot. Students learn about electric motors, servos, sensors, switches, actuators and their application in a robot. Students learn Basic Stamp computer programming and its integration into a working robotic unit. The course also includes mechanical assembly, connecting electronic components, wiring and soldering, and testing.
MARKETING

(MARKET)

MARKET 001 Principles of Selling (3) CSU
This course emphasizes the principles used in persuasive communication. Consumer buying behavior, presentations, and closing sales are covered. The course is designed to help students currently involved in sales, as well as those seeking to improve their communication skills. Sales presentations, video tapes and case studies are used.

MARKET 011 Fundamentals of Advertising (3) CSU
This course introduces the student to the role of advertising in our economy. It gives a comprehensive overview of the planning and managing of advertising. The course also covers how the major forms of media, such as television, radio, newspapers, magazines, and the internet are integrated into the advertising campaign.

MARKET 021 Principles of Marketing (3) CSU
This course introduces students to various activities in the field of marketing. It provides a broad understanding of the principals involved in the distribution of commodities from the producer to the user or consumer. It covers the consumer market, consumerism, packaging and brands, pricing, wholesaling, retailing, sales promotion, personal selling, and international marketing. Presentations, case studies and video tapes are used.

MARKET 023 Introduction to Social Media Marketing (3)
This course equips students with the practical skills required to develop marketing strategies that leverage opportunities inherent in social media and consumer-to-consumer social interactions to achieve business and marketing goals. The course emphasizes the importance of understanding consumers’ social interactions. Also covered: current social media marketing channels, social marketing strategies, effective social media tracking, relevant aspects of digital marketing technologies and emerging topics in e-commerce, mobile marketing, and social media startups.

MATHEMATICS

(MATH)

NOTE: To enroll in a mathematics course, the student must satisfy one of the following conditions:
- The prerequisite must have been completed, OR
- Placement through the Multiple Measures process

MATH 105 Arithmetic (3) NDA
This course is designed to give students an understanding of and a competency in the basic operations of elementary arithmetic. To attain this mastery, students must have a genuine desire to remove arithmetic deficiencies. Topics include operations with whole numbers, common and decimal fractions, percentages, the study of the metric system and simplified calculations.

MATH 107 How to do Word Problems
Prerequisite: MATH 110 or 112 with a grade of "C" or better, or placement through the multiple measures process.
Students will learn reading and problem-solving strategies needed for success with word problems commonly encountered in Algebra courses.

MATH 110 Introduction to Algebraic Concepts (5)
Prerequisite: MATH 105 with a grade of "C" or better, or placement through the multiple measures process.
Discusses abstract ideas necessary for understanding algebra and reviews selected topics in arithmetic relevant to algebra. Introduces fundamental notions of algebra including signed numbers, variables, simple equations, proportional reasoning, applications, and modeling. This course also includes group work instruction in mathematics study skills.

MATH 112 Pre-Algebra (3) NDA
Prerequisite: MATH 105 with a grade of "C" or better, or placement through the multiple measures process.
This course bridges the gap between arithmetic and algebra. It reviews arithmetic and introduces concepts of algebra including signed numbers, variables, exponents, mathematical sentences and linear equations.

MATH 115 Elementary Algebra (5)
Prerequisite: MATH 110 or 112 with a grade of "C" or better, or placement through the multiple measures process.
This is a first course in algebra. It covers the fundamental operations on natural numbers and carries on a logical development through all the real numbers. The course includes the solution of linear and quadratic equations and their graphs, factoring and statement problems.

MATH 117 Basic Elementary Algebra (5)
Prerequisite: MATH 110 or 112 with a grade of "C" or better, or placement through the multiple measures process.
This course is designed for students who are beginning the study of algebra. It parallels the first half of the first-year algebra course in high school. Additional topics have been added to the traditional material. Note: MATH 117 and 118 together are equivalent to MATH 115.

MATH 118 Basic Elementary Algebra II (5)
Prerequisite: MATH 117 with a grade of "C" or better.
This course parallels the second half of first-year high school algebra course, including additional topics such as rational
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 122</td>
<td>Intermediate Algebra for Statistics</td>
<td>5</td>
<td>MATH 115, 118, or placement through the multiple measures process</td>
<td>The course reviews and extends elementary algebra concepts and techniques and also covers intermediate algebra topics necessary to be successful in Math 227 Statistics. Topics include absolute value equations and inequalities, compound inequalities, relations and functions, exponential and logarithmic functions, sequences, series, Binomial Theorem, permutation &amp; combination, sets and probability. This course serves as a prerequisite solely for Math 227 and Math 215.</td>
</tr>
<tr>
<td>MATH 123A</td>
<td>Elementary and Intermediate Algebra I</td>
<td>4</td>
<td>MATH 110 or 112 with a grade of &quot;C&quot; or better, or placement through the multiple measures process</td>
<td>First of three modules for MATH 123 covering elementary algebra topics such as properties and operations with real numbers, addition, subtraction, multiplication of algebraic expressions, solution of linear equations and inequalities. Solution of word problems involving linear equations and inequalities.</td>
</tr>
<tr>
<td>MATH 123B</td>
<td>Elementary and Intermediate Algebra I</td>
<td>4</td>
<td>MATH 123A with a grade of &quot;C&quot; or better, or placement through the multiple measures process</td>
<td>Second of three modules for MATH 123 covering elementary algebra topics such as addition, subtraction, multiplication of polynomials, solution of second degree equations and radical expressions. Solution of word problems involving second degree equations and radical expressions.</td>
</tr>
<tr>
<td>MATH 123C</td>
<td>Elementary and Intermediate Algebra I</td>
<td>4</td>
<td>MATH 123B with a grade of &quot;C&quot; or better, or placement through the multiple measures process</td>
<td>Third of three modules for MATH 123 covering intermediate algebra topics such as functions and their operations, conic sections, series and sequences. Applications of these topics to business, science and engineering are included.</td>
</tr>
<tr>
<td>MATH 125</td>
<td>Intermediate Algebra</td>
<td>5</td>
<td>MATH 115 or 118 with a grade of &quot;C&quot; or better, or placement through the multiple measures process</td>
<td>Manipulative skills in algebra are developed and strengthened in the course. The topics include linear equations and inequalities, graphs and functions, systems of equations and inequalities, and polynomials and factoring. A wide variety of statement problems are included in the course.</td>
</tr>
<tr>
<td>MATH 127</td>
<td>Basic Intermediate Algebra</td>
<td>5</td>
<td>MATH 115 or 118 with a grade of &quot;C&quot; or better, or placement through the multiple measures process</td>
<td>This course covers the first half of MATH 125 with additional topics. Manipulative skills in algebra are developed and strengthened in the course. The topics include linear equations and inequalities, graphs and functions, systems of equations and inequalities, and polynomials and factoring. A wide variety of statement problems are included in the course.</td>
</tr>
<tr>
<td>MATH 128</td>
<td>Basic Intermediate Algebra II</td>
<td>5</td>
<td>MATH 127 with a grade of &quot;C&quot; or better, or placement through the multiple measures process</td>
<td>This course covers the second half of MATH 125 with additional topics. Manipulative skills in algebra are developed and strengthened in the course. The topics include rational exponents, the complete number system of algebra, algebraic and graphical solutions to linear and quadratic equations, logarithmic and exponential functions, elementary theory of equations and inequalities and conics. A wide variety of statement problems are included in the course.</td>
</tr>
<tr>
<td>MATH 215</td>
<td>Principles of Mathematics I</td>
<td>3</td>
<td>UC/CSU</td>
<td>This course is designed primarily for students who plan to teach in elementary school. This course also covers the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including real number systems and subsystems. Emphasis is on comprehension and analysis of mathematical concepts and applications of logical reasoning.</td>
</tr>
<tr>
<td>MATH 227</td>
<td>Statistics</td>
<td>4</td>
<td>UC/CSU</td>
<td>This course discusses averages, variability, graphical techniques, probability, hypothesis testing, sampling, estimation, correlation, prediction, and linear regression. Topics include collection and analysis of data and how inferences about a population are made from that sample.</td>
</tr>
</tbody>
</table>
| MATH 227S | Statistics with Support | 4 | UC/CSU | This course is an introduction to probability, measures of central tendency and dispersion, descriptive and inferential statistics including sampling, estimation, and hypothesis testing. Analysis of variance, chi-square and student t-
distributions, linear correlation, and regression analysis are also presented as topics. The lab component supplements the lecture by providing background information and additional support.

**MATH 230 Mathematics for Liberal Arts Students (3)**
Prerequisite: MATH 122 or MATH 125 with a grade of “C” or better; or Placement through the multiple measures process.
Recommended: Academic Preparation 16CE/Algebra and 18CE/Preparatory Math noncredit.
An introduction to the spirit and style of mathematics and its pursuit as a human endeavor. Topics include logical reasoning and set theory, algebraic and geometric systems, probability and statistics, mathematical modeling, and two or more of the following: numeration systems, financial math, graph theory, election theory, fair-division algorithms, number theory, sequences and series.

**MATH 235 Finite Mathematics (5) UC/CSU**
Prerequisite: MATH 125, or 128 with a grade of “C” or better, or Placement through the multiple measures process.
This course covers finite mathematics consisting of sets, graphing, linear programming, vectors, matrices, linear systems, combinations, probability, statistics, game theory and Markov chains, with emphasis on applications in business and social sciences.

UC Transfer Credit Limit: A maximum of two courses from MATH 235 and 236; MATH 261 and 262.

**MATH 236 Calculus for Business and Social Sciences (5) UC/CSU**
Prerequisites: MATH 123C, 125, or 128 with a grade of “C” or better, or Placement through the Multiple Measures process.
This course consists of elementary differential and integral calculus; exponential and logarithmic functions, and their applications to business and social sciences.

UC Transfer Credit Limit: A maximum of two courses from MATH 235 and 236; MATH 261 and 262.

**MATH 245 College Algebra (3) UC/CSU**
Prerequisite: MATH 123C, 125, or 128 with a grade of “C” or better.
Recommended: Academic Preparation 16CE OR Placement through Multiple Measures process.
This course covers relations, functions and their graphs, exponential and logarithmic functions, theory of equations, matrices and determinants, theory of equations, permutations, combinations, probability, sequences and series, conic sections, and mathematical induction.

UC Transfer Credit Limit: A maximum of one course from MATH 245 or MATH 260.

**MATH 260 Pre-Calculus (5) UC/CSU**
Prerequisite: MATH 241 with a grade of “C” or better, or placement through the multiple measures process.
This course in pre-calculus combines the traditional courses of college algebra and analytic geometry, and covers such topics as inequalities, functions, matrices and determinants, properties of the straight line, conic, algebraic and transcendental functions, and parametric equations.

UC Transfer Credit Limit: A maximum of one course from MATH 245 or MATH 260.

**MATH 261 Calculus I (5) UC/CSU**
Prerequisite: MATH 260 with a grade of “C” or better, or Placement through the Multiple Measures process.
Students learn basic principles and applications of calculus. Topics include: continuity and limits; differentiation and integration of algebraic and trigonometric functions; fundamental theorem of the calculus; applications of the derivative to curve sketching, rectilinear motion, maximum/minimum problems, and related rates; applications of the integral to problems of area, volume, arc length, and work.

UC Transfer Credit Limit: A maximum of two courses from MATH 235 and 236; MATH 261 and 262.

**MATH 262 Calculus II (5) UC/CSU**
Prerequisite: MATH 261 with a grade of “C” or better.
The second course of calculus deals with the differentiation and integration of transcendental functions, standard techniques of integration, curves in polar coordinates, and sequences and series.

UC Transfer Credit Limit: A maximum of two courses from MATH 235 and 236; MATH 261 and 262.

**MATH 263 Calculus III (5) UC/CSU**
Prerequisite: MATH 262 with a grade of “C” or better.
The third course of calculus deals with such topics as multivariable calculus, partial differentiation, two- and three-
dimensional vectors, Stokes and divergence theorems, and
differential equations.

MATH 270 Linear Algebra (3) UC/CSU
Prerequisite: MATH 262 with a grade of “C” or better.
This course covers vector spaces, linear transformations and
matrices, matrix algebra. Determinants and solutions of
systems of equations are made. Note: Offered Fall semesters
only.

MATH 275 Ordinary Differential Equations (3) UC/CSU
Prerequisite: MATH 263, which may be taken concurrently.
This course covers first-order differential equations and linear
differential equations. Special methods for solution of these
equations are developed and applied. Transforms are
developed and used for the solution of differential equations
and systems of equations. Existence theorems are stated and
proofs are outlined. Series solutions and operator methods are
included.

MICROBIOLOGY
(MICRO)

MICRO 020 General Microbiology (4) UC/CSU
Prerequisites: BIOLOGY 3A, 3B.
Recommended: Successful completion of ENGLISH 28.
Study of microorganisms, including their structure,
metabolism, methods of multiplying, and classification. The
techniques used to control microorganisms and the human
body’s defenses against microbial attack are emphasized. The
laboratory covers the microscopic examination of
microorganisms, aseptic techniques, the cultivation of
bacteria, the effects of antimicrobial agents, and the influence
of the environment on bacterial growth.

MULTIMEDIA
(MULTIMD)

MULTIMD 100 Introduction to Multimedia Computer
Applications (3) CSU
An overview of the interactive multimedia industry, the
profession and career options, the market, and the production
process including concept development, interactive design,
asset manipulation, programming and delivery. This
introduction forms the basis for study of digital and nonlinear
technologies and applications.

This course introduces the student to computer applications
for the digital editing of video and sound. Emphasis is placed
on non-linear postproduction tools.

MULTIMD 320 Web Design (3) CSU
A fundamental course in the application of the principles of
design to build websites. Students will use a web interface
design they have created to build and publish a third or fourth
generation website.

MULTIMD 350 Web Design II (3) CSU
Prerequisite: MULTIMD 320
Advanced development of aesthetic and conceptual skills
related to design for Web sites. Techniques are demonstrated
to further student experience with design, Dreamweaver,
HTML5 and CSS (Cascading Style Sheets). Focus is also
placed on usability, accessibility and web standards.

MULTIMD 400 Introduction to Experimental Animation (3)
CSU
Introduces the student to the basic principles of experimental
animation. Emphasis is placed on the techniques, tools, and
resources required to create a wide range of animated
projects, including hand-drawn, clay animation and cut-out.
Students apply concepts of timing, weight, personality,
balance and style.

MULTIMD 803 Introduction to Webcasting (2) CSU
Teaches the principles and practice of producing Webcasts—
emphasizing news, entertainment and information. Students
will learn fieldwork, interviewing, writing, shooting, editing and
postproduction techniques for Webcasts. This course provides
instruction on the use of video and audio recording equipment,
live streaming techniques, recording and editing software, as
well as posting and publicizing Webcasts. Audience, lighting
techniques, composition, Students’ work may also be posted
to student-run campus media online.

MULTIMD 805 Motion Graphics, and Compositing for
Digital Video, Animation, Gaming, and New Media (3)
UC/CSU
Intermediate level course dealing with motion graphics and
compositing for film and television using digital imaging and
animation software, with an emphasis on After Effects or
similar state-of-the-art software, including layers, masks,
filters, animation techniques and output to video, via
demonstrations, practicums, and exercises.

MULTIMD 807 Interactive Media Design (3) UC/CSU
This course introduces students to basic concepts of
interactive design for digital media with a journalistic
emphasis. Students will design interactive multimedia
packages, graphics, animation, mobile applications, digital e-
book reader interactives, widgets, and more. An introduction
to basic design principles, concepts of engagement and
interactivity, and presentation of journalistic content on a
variety of platforms will be discussed. An emphasis will be
MUSIC 101 Fundamentals of Music (3) UC/CSU
The rudiments of musical notation, scales, keys, intervals, common musical terms and elementary keyboard are studied.

MUSIC 111 Music Appreciation I (3) UC/CSU
Designed for non-Music majors, this course meets Humanities/Fine Arts requirements by surveying a wide variety of musical styles and periods past and present. The emphasis is on perceptive listening along with expository readings.

MUSIC 121 Music History and Literature I (3) UC/CSU
This course presents a survey of musical practices and styles from the earliest times to 1750, including the Romanesque, Gothic, Renaissance, and Baroque periods. The artistic philosophy of each style period is explored.

MUSIC 122 Music History and Literature II (3) UC/CSU
Styles, techniques and forms of music from 1750 to the present are traced. Special emphasis is placed on the development of the orchestra and its forms. The artistic philosophy of each style period is examined. Note: Music History and Literature I is not a prerequisite to Music History and Literature II.

MUSIC 136 Music in American Culture (3) UC/CSU
An historical study of musical theater in America from Colonial times to burlesque through operetta to The Follies and current Broadway shows.

MUSIC 137 Music as A Business (3) CSU
This course provides instruction on the business of music: Students will examine the varied aspects of handling and packaging their own musical talents, and how to acquire and deal with agents and managers, how to read contracts, and keep records. Unions, marketing and taxation are also covered.

MUSIC 141 Jazz Appreciation (3) UC/CSU
Designed for non-Music majors, this course meets Humanities/Fine Arts requirements by surveying jazz styles of music from their beginnings to the present. The emphasis is on perceptive listening, along with expository readings.

MUSIC 161 Introduction to Electronic Music (3) CSU
This course explores electro acoustic music by surveying contemporary music and by becoming familiar with the use of technology in today’s musical practices and procedures. Computers, synthesizers and MIDI software are utilized.

MUSIC 165 Introduction to Recording Arts (3) CSU
An introduction to the theory and practice of acoustics, audio, and recording. Topics include: the nature of sound; basic acoustics; audio systems and terminology; microphone principals and usage; recording styles; re- cording studio equipment; multi-track recording procedures.

MUSIC 180 Applied Music Laboratory I (1.5) CSU
This course consists of individualized study of the appropriate techniques and repertoire for the specific instrument or voice being studied. The emphasis is on the progressive development of skills needed for performance. Achievement is evaluated through skills demonstration.

MUSIC 180-1 Applied Music Laboratory I (1.5) UC/CSU
This course consists of individualized study of the appropriate techniques and repertoire for the specific instrument or voice being studied. The emphasis is on the progressive development of skills needed for performance. Achievement is evaluated through skills demonstration. Concurrent enrollment in MUSIC 181 is required. Placement is by audition only.

MUSIC 180-2 Applied Music Laboratory II (1.5) UC/CSU
This course consists of individualized study of the appropriate techniques and repertoire for the specific instrument or voice being studied. The emphasis is on the progressive development of skills needed for performance. Achievement is evaluated through skills demonstration.

MUSIC 180-3 Applied Music Laboratory III (1.5) UC/CSU
This course consists of individualized study of the appropriate techniques and repertoire for the specific instrument or voice being studied. The emphasis is on the progressive development of skills needed for performance. Required enrollment in co-requisite course MUSIC 183. Placement is by audition. Achievement is evaluated through skills demonstration.

MUSIC 180-4 Applied Music Laboratory IV (1.5) UC/CSU
This course consists of individualized study of the appropriate techniques and repertoire for the specific instrument or voice being studied. The emphasis is on the progressive development of skills needed for performance. Required enrollment in co-requisite course MUSIC 184. Placement is by audition. Achievement is evaluated through skills demonstration.

MUSIC 181 Applied Music I (0.5) CSU
This course offers individual instruction of one-half hour per week in voice, piano, guitar, or band/orchestral instruments, with an assigned instructor on the Applied Music staff. Emphasis is placed on technical development, interpretation, and musicianship at the lower-intermediate level. Performance
COURSE DESCRIPTIONS

MUSIC 185 Directed Study-Music I (1) CSU
This course allows students to pursue directed study in Music on a contract basis under the direction of a supervising instructor.

MUSIC 200 Introduction to Music Theory (4) UC/CSU
This course explores the elements of music and discovers how musicians use the elements to create compositions. Topics include musical notation, basic rhythms, scales, keys, sight singing, ear training, and an introduction to the keyboard.

MUSIC 201 Harmony I (3) UC/CSU
Prerequisite: MUSIC 200. Recommended: concurrent enrollment in MUSIC 211.
Fundamental harmonic principles of music including chord structure in diatonic harmony, inversions, harmonic progression, cadences, harmonization of a given part and non-harmonic tones. Harmonic skill is developed through written exercises, analysis of musical examples. Students will be required to spend additional time in the Theory Lab with computer assisted instructional materials, and have at least minimum pianistic ability.

MUSIC 202 Harmony II (3) UC/CSU
Prerequisite: MUSIC 201. Corequisite: MUSIC 212.
While further developing the material presented in Harmony I, Harmony II expands the musical vocabulary by presenting seventh chords and an introduction to chromaticism and modulation. Students in this course will be required to spend additional time in the Learning Resource Center with audio-visual and computer-assisted instructional materials.

MUSIC 203 Harmony III (3) UC/CSU
Prerequisite: MUSIC 202. Corequisite: MUSIC 213.
This course extends principles developed in MUSIC 202, including augmented sixth chords, the Neapolitan sixth, altered dominants, diminished seventh chords, chromatic third relation harmony, modulation to foreign keys and extended chords such as ninths, elevenths and thirteenths. Students in this course will be required to spend additional time in the Learning Resource Center with audio-visual and computer-assisted instructional materials.

MUSIC 211 Musicianship I (1) UC/CSU
Prerequisite: MUSIC 200 or equivalent.
Corequisite: MUSIC 201.
Correlated with Harmony 1, this course consists of a study of sight reading, one-part melodic dictation, simple harmonic dictation, elementary theory, including scale structure, keys, intervals, musical terminology and notation, and the basic principles of musicianship.

MUSIC 212 Musicianship II (1) UC/CSU
Prerequisite: MUSIC 211. Corequisite: MUSIC 202.
This course consists of sight reading, ear training and keyboard application of the subject matter covered in Music 202.

MUSIC 213 Musicianship III (1) UC/CSU
Prerequisite: MUSIC 212. Corequisite: MUSIC 203.
This course consists of sight reading, ear training and keyboard application of the subject matter covered in MUSIC 203.

MUSIC 214 Musicianship IV (1) UC/CSU
This course is an advanced intermediate course that applies and develops sight singing; rhythmic, melodic and harmonic materials, dictation and simple keyboard harmony. Review of music theory fundamentals.

MUSIC 265 Recording Arts Workshop (3) CSU
Prerequisite: MUSIC 165.
The application of the theory and practice of acoustics, audio, and recording learned in The Introduction to Recording of recording styles; recording studio equipment; and multi-track recording procedures.

MUSIC 265-1 Recording Arts Workshop I (3) CSU
This is the first of a three-course intermediate to advanced series in recording arts for students who have previously completed MUSIC 165. Through lecture and hands-on experience students will study acoustic principles, microphones, multi-track recording, overdubbing and mixing, using hardware equipment and digital audio workstation (DAW) computer applications. Students will be responsible for equipment set up and take down as well as uploading projects to the internet for personal and or academic use.

MUSIC 265-2 Recording Arts Workshop II (3) CSU
This is the second of a three-course intermediate to advanced series in recording arts for students who have previously completed MUSIC 265-1. Through lecture and hands-on experience students will study acoustic principles, advanced multi-track recording techniques, advanced microphone techniques, signal processing, track groups, and techniques for creating a balanced and effective mix. Students will be responsible for equipment set up and take down as well as uploading projects to the internet for personal and or academic use.

MUSIC 265-3 Recording Arts Workshop III (3) CSU
This is the third of a three-course intermediate to advanced series in recording arts for students who have previously completed MUSIC 265-2. Through lecture and hands-on experience students will study acoustic principles, advanced multi-track recording, advanced audio editing and track comping, advanced signal processing, and mastering techniques. Students will be responsible for equipment set up and take down as well as uploading projects to the internet for personal, academic, and or commercial use.

MUSIC 321 Elementary Piano I (2) UC/CSU
This course deals with the fundamental harmonic principles of music including chord structure, diatonic harmony, inversions, harmonic progression, harmonic structure of the phrase, harmonization of a given part, and non-harmonic tones. Harmonic skill is developed through written exercises, analyses of classical examples and keyboard exercises. Students will be required to spend additional time in the Learning Resource Center with audio visual and computer-assisted instructional materials, have some pianistic ability, and/or concurrent enrollment in an elementary piano course.

**MUSIC 322 Elementary Piano II (2) UC/CSU**

*Prerequisite: MUSIC 321 or equivalent.*

Elementary Piano II is a continuation of Elementary Piano I (MUSIC 321) with emphasis on basic piano technique including major scales and arpeggios up to five sharps and flats in two octaves; along with the basic principles of sight-reading in simple and compound meters; melody harmonization using I, IV, and V7 chords; transpositions and stylistic interpretation of early keyboard literature. Note: Students should have access to a piano, as daily practice is required.

**MUSIC 323 Elementary Piano III (2) UC/CSU**

*Prerequisite: MUSIC 322 or equivalent.*

Continuation of MUSIC 322 topics including repertoire on the level of Beethoven Sonata in G; Bach Minuet in G. Note: Students should have access to a piano, as daily practice is required.

**MUSIC 324 Elementary Piano IV (2) UC/CSU**

*Prerequisite: MUSIC 323 or equivalent.*

Elementary Piano IV is a continuation of Elementary Piano III. The emphasis of this course is on exploring minor scale forms including the natural, harmonic and melodic forms; sight-reading minor melodies based on minor scale forms; constructing augmented and diminished triads; along with the basic principles of harmonization, sight reading, transposition, improvisation, and accompaniment using Romantic and folk keyboard literature.

**MUSIC 341 Intermediate Piano (2) UC/CSU**

*Prerequisite: MUSIC 324 or equivalent.*

This course is a continuation of Elementary Piano IV (MUSIC 324), offering essential keyboard facility designed for the piano major wishing to transfer to a major university or the amateur pianist seeking to play for individual enjoyment. Intermediate Piano covers an intense study in Modulating Chord Progressions, Greek Modes, Sixth Chords, Score Reading, Clef Transpositions, Improvisational Styles and intermediate to advanced piano literature.

**MUSIC 361 Commercial Piano Techniques Workshop (2) UC/CSU**

The student shall learn chords and chord progressions used in jazz and current popular music styles as applied to the keyboard. If the prerequisite is not met, enrollment is subject to audition.

**MUSIC 385 Directed Studies (3) CSU**

This course allows students to pursue directed study in Music on a contract basis under the direction of a supervising instructor.

**MUSIC 411 Elementary Voice I (2) UC/CSU**

*Recommended: MUSIC 411.*

An extension of principles introduced in Music 411 and includes interpretive qualities. Repertoire: an introduction to Italian art songs and simple Broadway songs.

**MUSIC 412 Elementary Voice II (2) UC/CSU**

*Recommended: MUSIC 411 and 412 or equivalent.*

All aspects of solo singing are stressed, especially English, Italian, and German diction. Repertoire includes art songs in the original language and less vocally demanding arias from opera and oratorio.

**MUSIC 413 Elementary Voice III (2) UC/CSU**

*Recommended: MUSIC 411 or equivalent.*

An introduction to French art song repertoire the song repertoire are stressed.

**MUSIC 414 Elementary Voice IV (2) UC/CSU**

*Prerequisite: MUSIC 413 or equivalent.*

This course is a continuation of the principles and concepts presented in MUSIC 413. An introduction to French art song and simple opera arias, the development of the student’s ability to analyze and interpret the song repertoire are stressed.

**MUSIC 453 Music Theatre Repertoire for Singers (1) UC/CSU**

This course presents a continued concentration of general basic fundamentals of singing dealing with vocal techniques as utilized in musical theater. Additional instruction will include basic movement and acting techniques utilizing musical theater song literature interpretation. Enrollment is subject to audition. Bring the music of a prepared song to the first class meeting.

**MUSIC 501 College Choir (1) UC/CSU (RPT)**

Open to all students by audition. This course consists of study and performance of selected choral literature for mixed voices, both accompanied and a cappella. The emphasis is placed on the development of reading skills, basic voice techniques and interpreting the score.

**MUSIC 561 Chamber Chorale (1) UC/CSU (RPT)**

This course is designed for the intermediate choral singer. The students analyze, rehearse and perform choral music suited to
a small group of singers, with and without accompaniment. Choral literature from the Renaissance through the 21st century is explored. Emphasis is on increased skill in reading music and sight singing, score interpretation, vocal technique, diction, ear training, and preparation for public performances. Confirmation of enrollment is subject to audition.

**MUSIC 755 Brass Ensemble (1) UC/CSU (RPT)**
This course involves preparation for performances of ensemble repertoire. It provides for the development of ensemble technical and artistic abilities through experience with a wide range of ensemble literature.

**MUSIC 775 Jazz Ensemble (1) UC/CSU (RPT)**
Open to all instrumentalists by audition. This course provides instrumentalists and vocalists with the opportunity to rehearse and perform music of the past in the “big band” tradition, as well as contemporary compositions written for this ensemble.

**MUSIC 781 Studio Jazz Band (1) UC/CSU (RPT)**
The student prepares, rehearses and performs selected musical works for jazz band, focusing on rhythm, intonation, articulation, expression, blend and balance, following the conductor, improvisation of solos, and professional standards of conduct. Confirmation of enrollment is subject to audition.

**NURSING**

(NURSING)

(Also see Allied Health, and Health Occupations.)

**NURSING 056 Essential Practical Skills for Nurse Assistants (1)**
This course focuses on reinforcing and integrating the Certified Nurse Assistant duties and skills required to assist patients in long term care facilities with of Activities of Daily Living.

**NURSING 399 Certified Nurse Assistant / Certified Home Health Aide (7)**
Introduction to the health care field, working with residents/patients in the long-term care facility, the acute care setting, and the home care setting. Emphasis is given to safety principles, infection control, methods for providing physical care, and emotional and social support.

**NURSING 399A Certified Nurse Assistant (5)**
Recommended: ENGLISH 28. Replace Limitation on Enrollment:

Students must attend a mandatory orientation. Students are required to have malpractice insurance and health clearances, including but not limited to a TB test, immunizations, and physical examination. Background clearance via Live Scan Fingerprinting and American Heart Association Health Provider CPR training must be completed. Enrollment may be limited due to health and safety considerations, as well as the constraints of regional planning or legal requirements imposed by statues, regulations or contracts. Enrollment may also be limited to students meeting pre-requisites established pursuant to Title 5, sections 55200-55202 and Board Rule 8605.

This course will provide students with an introduction to the health care field, working with residents/patients in the long-term care facility and the acute care setting. Emphasis will be given to safety principles, infection control, methods for providing physical care, and emotional and social support. Upon successful completion of this course, students will be eligible to take the American Red Cross Nurse Assistant Certification Exam.

**NURSING 399B Certified Home Health Aide (2)**
Prerequisite: Successful completion of NURSING 399A, or State of California Certification from California Department of Health.

This course focuses on understanding the regulatory guidelines pertaining to the Home Health Aide scope of practice; basic knowledge of the disease and to recognized signs and symptoms of the disease; the concepts of provision of care in home setting and a sound knowledge base from which the Home Health Aide can be an important partner of other healthcare providers, for the patient to achieve the highest level of physical function and go back to prior level of care.

**OCEANOGRAPHY**

(OCEANO)

(Also see Earth Science, Environmental Science, and Geography.)

**OCEANO 001 Introduction to Oceanography (3) UC/CSU**
Recommended: ENGLISH 028 and MATH 112

This course offers introductory study of the ocean floor, chemical & physical properties of ocean water, currents, tides, waves and marine resources.

**OCEANO 010 Physical Oceanography Laboratory (1)**
OCEANO 010 is the laboratory course that accompanies the OCEANO 001 lecture course. This course introduces the student to the tools of oceanography and current oceanographic research. The student will learn analytic techniques used to study oceanographic features, seawater