

MGMT 111 Starting a Small Business**Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU

The course provides an introduction to the fundamentals of starting (or purchasing) and managing a small business. The student will prepare a comprehensive business plan, in a business of their choice, during the course. Financing, merchandising, and franchising will be covered; with emphasis on decision-making through maintenance and interpretation of accounting data.

MGMT 190 Occupational Work Experience/Management-Supervision**Units:** 1-4 **Hours:** 12 Laboratory**Required:** Declared vocational major. Concurrent enrollment in seven or more units (including CWE units, except for summer school. For summer school, enrollment in one other class is required). Minimum 2.00 G.P.A.**Transferable:** CSU

College credit for learning experience obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student. 75 hours per semester per unit or 60 hours per semester for unpaid experience. This is a pass/no pass course. May be taken for a maximum of 16 work experience units.

MGMT 611 Topics in Starting a Small Business**Units:** .5 **Hours:** 3 Lecture**Advisory:** Eligible for English 250 and English 260.**Transferable:** No

This entry represents a cluster of six modules: Benefits of Small Business, Starting the Small Business, Small Business Marketing, Managing Small Business Operations, Financial and Administrative Controls, Status and Future of Small Business (Management clusters of nine hours each). May be repeated to a maximum of 3 units. Units earned in this course do not count toward the associate degree and/or certain certificate requirements. This is a pass/no pass course.

MARKETING**MKTG 100 Principles of Marketing****Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU

An introduction to the economic and social problems involved with moving goods and services from the producer to the consumer. This course covers topics such as marketing institutions, channels of distribution, pricing, and government relationships.

MKTG 102 Techniques of Selling**Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU

The principles and techniques involved in creative selling of products and services. Characteristics of effective selling, reports, territories, and quotas. Emphasis on securing prospects, the selling process, handling objections and inquiries, closing the sale, and follow-up.

MKTG 103 Principles of Advertising**Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU

The basic principles and techniques of business promotion. An exploration of the media as used in communicating to the market.

MKTG 190 Occupational Work Experience/Marketing**Units:** 1-4 **Hours:** 24 Laboratory**Required:** Declared vocational major. Concurrent enrollment in seven or more units (including CWE units, except for summer school. For summer school, enrollment in one other class is required). Minimum 2.0 G.P.A.**Transferable:** CSU

College credit for learning experience obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student. 75 hours per semester per unit or 60 hours per semester for unpaid experience. This is a pass/no pass course. May be taken for a maximum of 16 work experience units.

Mass Media: see JOUR 10**MATHEMATICS****MATH 1A Single-Variable Calculus and Analytic Geometry****Units:** 4 **Hours:** 4 Lecture**Prerequisite:** Mathematics 10 or Mathematics 8B with a grade of 'C' or better.

Transferable: CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 18, MATH SEQ. B
Limits and continuity, analyzing the behavior and graphs of functions, derivatives, implicit differentiation, higher order derivatives, related rates and optimization word problems, Newton's Method, Fundamental Theorem of Calculus, and definite and indefinite integrals.

MATH 1B Single-Variable Calculus and Analytic Geometry**Units:** 4 **Hours:** 4 Lecture**Prerequisite:** Mathematics 1A with a grade of 'C' or better.

Transferable: CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 20, MATH SEQ. B
This course is a standard second semester Calculus course covering methods of integration, applications of the integral, differential equations, parametric and polar equations, and sequences and series.

MATH 1C Multivariable Calculus**Units:** 4 **Hours:** 4 Lecture**Prerequisite:** Mathematics 1B with a grade of 'C' or better.

Transferable: CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 22, MATH SEQ. C
A standard third semester Calculus course covering functions of several variables, vectors, surfaces, vector-valued functions, partial derivatives, multiple and line integrals, Green's Theorem, Stokes' Theorem, and the Divergence Theorem.

MATH 2 Linear Algebra**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Mathematics 1C with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 26

A standard one semester Linear Algebra course covering systems of linear equations, vectors and matrices, determinants, vector spaces, linear transformations, eigenvalues, and eigenvectors. Graphing calculators and computers will be used.

MATH 2C Differential Equations**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Mathematics 1C with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 24

Introduction to ordinary differential equations, first-order differential equations, linear differential equations of higher order, vibration models, power-series solutions, the Laplace transform, and systems of linear differential equations.

MATH 5 Introduction to Statistics**Units:** 3 **Hours:** 3 Lecture, 1 Laboratory**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: STAT 2

Descriptive analysis and presentation of either single-variable data or bivariate data, probability, probability distributions, normal probability distributions, sample variability, statistical inferences involving one and two populations, analysis of variance, linear correlation and regression analysis. Statistical computer software will be extensively integrated as a tool in the description and analysis of data.

MATH 6 Calculus for Business/Social Science**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 34

This course applies the fundamental principles and techniques of calculus to problems in business, economics, the life sciences and the social sciences. Topics will include limits, and differentiation and integration of linear, quadratic, polynomial, exponential and logarithmic functions. This course is not intended for students majoring in engineering, the physical sciences or math. Using a calculator is required. Graphing calculator is recommended.

MATH 7 Finite Mathematics**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 12

Systems of linear equations and matrices, introduction to linear programming, finance, counting techniques and probability, properties of probability and applications of probability.

MATH 8 Precalculus**Units:** 5 **Hours:** 5 Lecture**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4; CAN: MATH 16

This course is designed to prepare students for the study of Mathematics 1A. Topics covered include graphs and functions, polynomial functions and theory of equations, exponential functions and logarithmic functions, trigonometric functions, trigonometric identities and conditional equations, analytic trigonometry, introduction to analytic geometry, systems of equations and inequalities, introduction to matrix theory and linear programming, Principle of Mathematical Induction, sequences and series, and introduction to probability. (Not currently offered.)

MATH 8A First Half of Precalculus**Units:** 4 **Hours:** 4 Lecture**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Math 8A prepares the student for the study of calculus by providing important skills in algebraic manipulation, interpretation, and problem solving at the college level. Topics will include basic algebraic concepts, complex numbers, equations and inequalities of the first and second degree, functions, and graphs, linear and quadratic equations, polynomial functions, exponential and logarithmic functions, systems of equations, matrices and determinants, right triangle trigonometry, and the Law of Sines and Cosines.

MATH 8B Second Half of Precalculus**Units:** 4 **Hours:** 4 Lecture**Prerequisite:** Mathematics 8A with a grade of 'C' or better.**Advisory:** Math 208 Survey of Practical Geometry.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Math 8B prepares students for the study of calculus by providing important skills in algebraic manipulation, interpretation, and problem solving at the college level. Topics will include trigonometric functions, identities, inverse trigonometric functions, and equations; applications of trigonometry, vectors, complex numbers, polar and parametric equations; conic sections; sequences, series, counting principles, permutations, mathematical induction; analytic geometry, and an introduction to limits.

MATH 9 College Algebra and Trigonometry**Units:** 5 **Hours:** 5 Lecture**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Advisory:** Mathematics 209 (May be concurrent.)**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Math 9 is the first step in preparing students for the study of calculus by providing important skills in algebraic manipulation and interpretation at the college level. Topics will include a review of basic algebraic concepts; lines; polynomial and rational functions; exponential and logarithmic functions; trigonometric functions, identities, inverse functions and equations; applications of trigonometry; systems of equations and matrices; conic sections; sequences, series and combinatorics. Hand-held graphing calculators will be used extensively to highlight their strengths and their limitations as a problem-solving tool. Real world applications will be numerous.

MATH 10 Functional Analysis and Modeling**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Mathematics 9 with a grade of 'C' or better and proficiency with the TI-83 graphing calculator as gained from, for instance, Math 209.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Math 10 prepares students for the study of calculus by providing important critical thinking and problem solving skills. The central theme of the course is the analysis of mathematical functions as models of change. Families of functions - linear, exponential, logarithmic, power, periodic, polynomial, rational - will be introduced, compared and contrasted. Course content will include an introduction to functions and functional notation; transformation of functions; composite, inverse and combinations of functions; vectors and polar coordinates; series; parametric equations; complex numbers. Hand-held graphing calculators will be used extensively to highlight their strengths and their limitations as a problem-solving tool. Real world applications will be numerous.

MATH 12 Mathematics for Elementary Teachers**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** High School Geometry and Math 233 (Intermediate Algebra), or, Math 208 (Plane Geometry) and Math 233 (Intermediate Algebra). All courses must be completed with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; GAV-GE: B4

This course is intended for students preparing for a career in elementary school teaching. Emphasis will be on the structure of the real number system, numeration systems, elementary number theory, and problem solving techniques. Technology will be integrated throughout the course.

MATH 14 Math for the Liberal Arts**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Math 233 with a grade of 'C' or better.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Survey of selected topics from contemporary mathematics to introduce the student to mathematical thinking for the non-specialist. Topics include systems of numeration, algebraic modeling, linear programming, trigonometry, math of finance, probability and statistics, and an introduction to calculus.

MATH 26 Discrete Mathematics**Units:** 4 **Hours:** 4 Lecture**Prerequisite:** Mathematics 10 with a grade of 'C' or better or equivalent.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Topics covered include set theory, logic, relations and functions, mathematical induction and recursion, combinatorics, discrete probability, trees and graphs, analysis of algorithms, algebraic structures. Emphasis on topics of interest to computer science majors. This course has the option of a letter grade or pass/no pass. Also listed as CSIS 26.

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MATH 201A Math for Science and Engineering**Units:** 1 **Hours:** 1 Lecture**Corequisite:** Enrollment in appropriate section of Math 205 which is part of a learning community.**Transferable:** No

This course will provide a combination of math study skills, introduction to scientific equipment and technology for mathematics, analysis of data from various branches of science, one or more field trips, investigation of educational plans and program choices at the transfer level.

MATH 201B Math for Science and Engineering**Units:** 1 **Hours:** 1 Lecture**Corequisite:** Enrollment in appropriate section of Math 233 which is part of a learning community.**Transferable:** No

This course will provide a combination of math study skills, introduction to scientific equipment and technology for mathematics, collection and analysis of data from various branches of science, one or more field trips, investigation of science careers and program choices at the transfer level.

MATH 205 Elementary Algebra**Units:** 5 **Hours:** 5 Lecture**Prerequisite:** MATH 402 with a grade of 'C' or better or assessment test recommendation.**Transferable:** No; GAV-GE: B4

This course is a standard beginning algebra course, including algebraic expressions, linear equations and inequalities in one variable, graphing, equations and inequalities in two variables, integer exponents, polynomials, rational expressions and equations, radicals and rational exponents, and quadratic equations. Mathematics 205, 205A and 205B, and 206 have similar course content. This course may not be taken by students who have completed Mathematics 205B or 206 with a grade of "C" or better. This course may be taken for Mathematics 205B credit (2.5 units) by those students who have successfully completed Mathematics 205A with a grade of "C" or better.

MATH 205A First Half of Elementary Algebra**Units:** 2.5 **Hours:** 4 Lecture**Prerequisite:** Effective Fall 2005: MATH 402 with a grade of 'C' or better or assessment test recommendation.**Advisory:** Concurrent enrollment in Guidance 563A is advised.**Transferable:** No; GAV-GE: B4

This course is the first half of the Elementary Algebra course. It will cover signed numbers, evaluation of expressions, ratios and proportions, solving linear equations, and applications. Graphing of lines, the slope of a line, graphing linear equations, solving systems of equations, basic rules of exponents, and operations on polynomials will be covered.

MATH 205B Second Half of Elementary Algebra**Units:** 2.5 **Hours:** 4 Lecture**Prerequisite:** Math 205A with a grade of 'C' or better.**Advisory:** Concurrent enrollment in Guidance 563B is advised.**Transferable:** No; GAV-GE: B4

This course contains the material covered in the second half of the Elementary Algebra Course. It will cover factoring, polynomials, solving quadratic equations by factoring, rational expressions and equations, complex fractions, radicals and radical equations, solving quadratic equations by completing the square and the quadratic formula. Application problems are integrated throughout the topics.

MATH 206 Beginning Algebra for Tech Prep**Units:** 5 **Hours:** 4 Lecture, 3 Laboratory**Advisory:** Mathematics 402 with a grade of "C" or better within the past 2 years or pass placement exam.**Transferable:** No

This course covers all the material of Math 205 along with some basic geometry. It includes lecture, practical problems, and hands-on laboratory work. It covers operations with signed numbers, evaluation of expression containing numbers and letters, simplifying Algebraic expressions, equations, word problems, exponents, polynomials, factoring and special products, fractions, graphing, systems of equations, radicals, and quadratic equations working with lines and angles, shapes in 2 and 3 dimensions, and right triangles. This course is intended for students who will enter into any Associate Degree Technical program. Mathematics 205, 205A, 205B and 206 have similar course content. This course may not be taken by students who have completed Mathematics 205 or 205B with a grade of "C" or better. This course may be taken for Mathematics 205B credit (2.5 units) by those students who have successfully completed Mathematics 205A with a grade of "C" or better.

MATH 208 Plane Geometry**Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Math 205 or Math 205A and Math 205B with a grade of 'C' or better.**Transferable:** No

This course introduces the vocabulary and principles of Euclidean Geometry. Methods of proof including inductive and deductive reasoning will be developed. Concepts of congruence and similarity, angles, lines, polygons, and circles will be covered. Additional topics such as solid geometry, analytical geometry, transformations, and basic trigonometry may be included as time allows.

MATH 209 Introduction to Graphing Calculators and Computers**Units:** .5 **Hours:** .3 Lecture, .7 Laboratory**Advisory:** Mathematics 205**Transferable:** No

An introduction to the use of the graphing calculator in mathematical applications such as functions, graphing, matrices, statistics, and applications to other mathematics courses, business, and natural sciences. Students will also use a personal computer for basic operations such as drawing and text editing. The focus will be on application programs for statistics, science, and technical courses. This is a 9 week course.

MATH 233 Intermediate Algebra**Units:** 5 **Hours:** 5 Lecture**Prerequisite:** Mathematics 205 or Mathematics 205A and 205B or Mathematics 206 with a grade of 'C' or better.**Transferable:** No; GAV-GE: B4

Review of basic concepts, linear equations and inequalities, graphs and functions, systems of linear equations, polynomials and polynomial functions, factoring, rational expressions and equations, roots, radicals, and complex numbers, solving quadratic equations, exponential and logarithmic functions, and problem solving strategies. Mathematics 233, 233A, and 233B have similar course content. This course may not be taken by students who have completed Mathematics 233B with a grade of 'C' or better. This course may be taken for Mathematics 233B credit (2.5 units) by those students who have successfully completed Mathematics 233A with a grade of 'C' or better.

MATH 233A First Half of Intermediate Algebra**Units:** 2.5 **Hours:** 4 Lecture**Prerequisite:** Completion of Mathematics 205 or the equivalent with a grade of 'C' or better.**Transferable:** No

This course will become active for the fall 2007 semester.

The course will start with a review of basic concepts and then cover the following topics with an emphasis on applications and problem solving strategies: solving linear equations; solving linear, compound, and absolute value inequalities; equations and graphs of lines; functions and function notation including composition of functions; solving systems of linear equations and inequalities; an introduction to matrices and Cramer's rule; operations with polynomials; factoring polynomials; and solving polynomial equations.

All courses listed here are part of Gavilan College's approved curriculum.
All courses are not offered every semester. Check the Class Schedule for current offerings.

MATH 233B Second Half of Intermediate Algebra**Units:** 2.5 **Hours:** 4 Lecture**Prerequisite:****Transferable:** No

This course will become active for the spring 2008 semester.

This course will start with a review factoring polynomials, and then cover the following topics with an emphasis on applications and problem solving strategies: solving polynomial equations by factoring; adding, subtracting, multiplying, dividing and simplifying rational expressions and solving rational equations; adding, subtracting, multiplying, dividing and simplifying roots, radicals and complex numbers and solving radical equations; the various methods of solving quadratic equations and inequalities; graphing quadratic functions; and working with exponential and logarithmic functions, equations and expressions.

MATH 400 Elements of Arithmetic**Units:** 3 **Hours:** 3 Lecture, 1 Laboratory**Transferable:** No

Essential arithmetic operations, whole numbers, integers, fractions, decimals, ratio, proportion, percent, applications of arithmetic, and critical thinking, as well as math-specific study skills. Units earned in this course do not count toward the associate degree and/or other certain certificate requirements.

MATH 402 Pre-Algebra**Units:** 3 **Hours:** 3 Lecture, 1 Laboratory**Prerequisite:** Completion of Math 400 with a 'C' or better, or assessment test recommendation.**Transferable:** No

This course covers operations with integers, fractions and decimals and associated applications, percentages, ratio, and geometry and measurement, critical thinking and applications. Elementary algebra topics such as variables, expressions, and solving equations are introduced.

MATH 404A Self-Paced Basic Math**Units:** 1 **Hours:** 1 Lecture, .3 Laboratory**Transferable:** No

This course is a remedial, modular, self-paced course. Application and critical thinking skills are developed in each module. Module A covers operations with whole numbers, equivalent fractions, multiplying and dividing fractions. Module B covers adding and subtracting fractions, and operations with decimals. Module C covers ratio and proportion, percent, and units of measurement. Module D reviews fractions, decimals, percentages, and covers operations with integers, and working with variables. Module E covers real numbers, fractions, exponents, scientific notation, and order of operations. Module F covers expressions, polynomials, and equations. Module G covers geometric figures, perimeter and area, surface area and volume, triangles and parallelograms, and similar figures. This course has the option of a letter grade or pass/no pass.

MATH 404B Self-Paced Basic Math**Units:** 1 **Hours:** 1 Lecture, .3 Laboratory**Transferable:** No

This course is a remedial, modular, self-paced course. Applications and critical thinking skills are developed in each module. Module A covers operations with whole numbers, equivalent fractions, multiplying and dividing fractions. Module B covers adding and subtracting fractions, and operations with decimals. Module C covers ratio and proportion, percent, and units of measurement. Module D reviews fractions, decimals, percentages, and covers operations with integers, and working with variables. Module E covers real numbers, fractions, exponents, scientific notation, and order of operations. Module F covers expressions, polynomials, and equations. Module G covers geometric figures, perimeter and area, surface area and volume, triangles and parallelograms, and similar figures. This course has the option of a letter grade or pass/no pass.

MATH 404C Self-Paced Basic Math**Units:** 1 **Hours:** 1 Lecture, .3 Laboratory**Transferable:** No

This is a remedial, modular, self-paced course. Applications and critical thinking skills are developed in each module. Module A covers operations with whole numbers, equivalent fractions, multiplying and dividing fractions. Module B covers adding and subtracting fractions, and operations with decimals. Module C covers ratio and proportion, percent, and units of measurement. Module D reviews fractions, decimals, percentages, and covers operations with integers, and working with variables. Module E covers real numbers, fractions, exponents, scientific notation, and order of operations. Module F covers expressions, polynomials, and equations. Module G covers geometric figures, perimeter and area, surface area and volume, triangles and parallelograms, and similar figures. This course has the option of a letter grade or pass/no pass.

MATH 404D Self-Paced Basic Math**Units:** 1 **Hours:** 1 Lecture, .3 Laboratory**Transferable:** No

This course is a remedial modular, self-paced course. Applications and critical thinking skills are developed in each module. Module A covers operations with whole numbers, equivalent fractions, multiplying and dividing fractions. Module B covers adding and subtracting fractions, and operations with decimals. Module C covers ratio and proportion, percent and units of measurement. Module D reviews fractions, decimals, percentages, and covers operations with integers, and working with variables. Module E covers real numbers, fractions, exponents, scientific notation, and order of operations. Module F covers expressions, polynomials, and equations. Module G covers geometric figures, perimeter and area, surface area and volume, triangles and parallelograms, and similar figures. This course has the option of a letter grade or pass/no pass.

MATH 404E Self-Paced Basic Math**Units:** 1 **Hours:** 1 Lecture, .3 Laboratory**Transferable:** No

This course is a remedial, modular, self-paced course. Applications and critical thinking skills are developed in each module. Module A covers operations with whole numbers, equivalent fractions, multiplying and dividing fractions. Module B covers adding and subtracting fractions, and operations with decimals. Module C covers ratio and proportion, percent, and units of measurement. Module D reviews fractions, decimals, percentages, and covers operations with integers, and working with variables. Module E covers real numbers, fractions, exponents, scientific notation, and order of operations. Module F covers expressions, polynomials, and equations. Module G covers geometric figures, perimeter and area, surface area and volume, triangles and parallelograms, and similar figures. This course has the option of a letter grade or pass/no pass.

MATH 404F Self-Paced Basic Math**Units:** 1 **Hours:** 1 Lecture, .3 Laboratory**Transferable:** No

This course is a remedial, modular, self-paced course. Applications and critical thinking skills are developed in each module. Module A covers operations with whole numbers, equivalent fractions, multiplying and dividing fractions. Module B covers adding and subtracting fractions, and operations with decimals. Module C covers ratio and proportion, percent, and units of measurement. Module D reviews fractions, decimals, percentages, and covers operations with integers, and working with variables. Module E covers real numbers, fractions, exponents, scientific notation, and order of operations. Module F covers expressions, polynomials, and equations. Module G covers geometric figures, perimeter and area, surface area and volume, triangles and parallelograms and similar figures. This course has the option of a letter grade or pass/no pass.

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MATH 404G Self-Paced Basic Math**Units:** 1 **Hours:** 1 Lecture, .3 Laboratory**Transferable:** No

This course is a remedial, modular, self-paced course. Applications and critical thinking skills are developed in each module. Module A covers operations with whole numbers, equivalent fractions, multiplying and dividing fractions. Module B covers adding and subtracting fractions, and operations with decimals. Module C covers ratio and proportion, percent, and units of measurement. Module D reviews fractions, decimals, percentages, and covers operations with integers, and working with variables. Module E covers real numbers, fractions, exponents, scientific notation, and order of operations. Module F covers expressions, polynomials, and equations. Module G covers geometric figures, perimeter and area, surface area and volume, triangles and parallelograms, and similar figures. This course has the option of a letter grade or pass/no pass.

MATH 414 Basic Math Skills**Units:** .5-3 **Hours:** 9 Laboratory**Transferable:** No

A remedial mathematics course designed for those students who need to learn, or re-learn, the basic concepts of math. The primary emphasis is on whole numbers, fractions, decimals, percents, and measurements. This course may be repeated three times for credit. This is a pass/no pass course. Units earned in this course do not count toward the associate degree and/or certain certificate requirements.

Medical Terminology: see Business

MUSIC

MUS 1A Music History and Literature**Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU; UC; CSU-GE: C1; IGETC: 3A; GAV-GE: C1; CAN: MUS 8

A survey of the development of music in western civilization including representative composers from the Medieval to the present. Music 1A will study the music and styles from the Medieval to the Romantic period.

MUS 1B Music History and Literature**Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU; UC; CSU-GE: C1; IGETC: 3A; GAV-GE: C1

A survey of the development of music in western civilization including representative composers from the Medieval period to the present. Music 1B will study the music and styles from late Romanticism to the present.

MUS 3A Harmony - Theory - Musicianship**Units:** 4 **Hours:** 4 Lecture, 2 Laboratory**Advisory:** Must be taken in sequence.**Transferable:** CSU; UC; CSU-GE: C1; GAV-GE: C1

Fundamentals of music, beginning harmony.

MUS 3B Harmony - Theory - Musicianship**Units:** 4 **Hours:** 4 Lecture, 2 Laboratory**Advisory:** Must be taken in sequence.**Transferable:** CSU; UC; GAV-GE: C1

Fundamentals of music, beginning harmony.

MUS 3C Intermediate Harmony - Theory**Units:** 4 **Hours:** 4 Lecture, 2 Laboratory**Advisory:** Music 3B**Transferable:** CSU; UC; GAV-GE: C1

Continuation of Music 3AB. Chromatic harmony, analysis and composition.

MUS 3D Intermediate Harmony - Theory**Units:** 4 **Hours:** 4 Lecture, 2 Laboratory**Advisory:** Music 3C**Transferable:** CSU; UC; GAV-GE: C1

Continuation of Music 3C. Analysis and composition.

MUS 4A Beginning Piano**Units:** 3 **Hours:** 2 Lecture, 2 Laboratory**Advisory:** Must be taken in sequence.**Transferable:** CSU; UC; CSU-GE: C1; GAV-GE: C1

Introduction to music fundamentals and keyboard technique. Development of beginning keyboard skills including note reading in bass and treble clef, fingering, rhythm, key signatures, primary chords and inversions.

MUS 4B Beginning Piano**Units:** 2 **Hours:** 1 Lecture, 2 Laboratory**Advisory:** Music 4A**Transferable:** CSU; UC; GAV-GE: C1

Continuation of Music 4A.

MUS 5A Intermediate Piano**Units:** 2 **Hours:** 1 Lecture, 2 Laboratory**Advisory:** Music 4B**Transferable:** CSU; UC; GAV-GE: C1

Development of intermediate keyboard skills through means of scales, chords, and technical studies. Continuation of music fundamentals and beginning keyboard harmony; introduction of easier classical and standard piano literature.

MUS 5B Intermediate Piano**Units:** 2 **Hours:** 1 Lecture, 2 Laboratory**Advisory:** Music 5A**Transferable:** CSU; UC; GAV-GE: C1

Development of intermediate keyboard skills through means of scales, chords and technical studies. Continuation of music fundamentals and beginning keyboard harmony; introduction of easier classical and standard piano literature.

MUS 5C Advanced Piano**Units:** 2 **Hours:** 1 Lecture, 2 Laboratory**Advisory:** Music 5B**Transferable:** CSU; UC; GAV-GE: C1

Development of advanced keyboard skills through means of scales, chords and technical studies. Continuation of music fundamentals and keyboard harmony; introduction of moderately difficult classical and standard piano literature.

MUS 5D Advanced Piano**Units:** 2 **Hours:** 1 Lecture, 2 Laboratory**Advisory:** Music 5C**Transferable:** CSU; UC; GAV-GE: C1

Development of advanced keyboard skills through means of scales, chords and technical studies. Continuation of music fundamentals and keyboard harmony; introduction of moderately difficult classical and standard piano literature.

