

**MKTG 123****Marketing and Technology - Trends and Cutting Edges**

Unit(s): 1.0 Class Hours: 18.0 Lecture total.

This course will cover the latest trends in mixed marketing technologies. Learn to use the latest technologies to drive awareness, create demand, and close sales. Discover the latest trends, strategies, and tools for using technology for marketing - what they are, how they work, and how to get started. CSU

**MKTG 124****Cause Marketing and Public Relations - Doing Well by Doing Good**

Unit(s): 1.0 Class Hours: 18.0 Lecture total.

This course will cover how companies can be successful by doing good, helping society and people. Learn about not-for-profit businesses and socially responsible for-profit businesses. Learn how authentic corporate giving, cause marketing, and the power of public relations can help drive the triple bottom line-profits, people and planet. CSU

**MKTG 125****Advertising & Promotion - Get the Word Out & Keep your Customers Buying**

Unit(s): 2.0 Class Hours: 36.0 Lecture total.

This course will provide students with an in-depth look into cutting-edge advertising and promotion strategies used by small, medium, and large companies. Students will learn how to create an advertising campaign, including the planning, costs, and creative design process. Students will learn how promotions are used to increase sales, to build brand loyalty, and to build relationship with customers. CSU

**MKTG 126****Distributing Products & Services - Reaching Customers Where They Shop**

Unit(s): 2.0 Class Hours: 36.0 Lecture total.

This course will teach the latest and most cost-effective strategies to reach your customer. Students will learn how an efficient B2B and/or B2C distribution system utilizing marketing intermediaries, direct sales, online distribution, and global markets can increase profits. Supply Chain strategies, channel evaluation, and relationships will be highlighted. CSU

**MKTG 127****Introduction to E-Commerce**

Unit(s): 3.0 Class Hours: 54.0 Lecture total.

Electronic commerce from a managerial perspective focusing on the retailing, business-to-business, and service industries. Topics include e-commerce infrastructure, intranets and extranets, electronic payment systems, marketing research, advertising, e-commerce strategies, and privacy issues (Same as Business 127). CSU

**MATHEMATICS (MATH)****MATH N06****Essential Mathematics**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: A student will be placed in Math N06 if they do not qualify for Math N48 or a higher course according to the Santa Ana College Math Department's placement standards.*

Reviews whole numbers, fractions, decimals, percent, geometric formulas and signed numbers. Not applicable to associate degree.

**MATH N48****Pre-Algebra/Algebra Basics**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

For students who have little or no previous algebra experience. This course offers an introduction to basic algebra concepts, math vocabulary, and algebraic operations. This course is intended to be a bridge from basic arithmetic to elementary algebra. Not applicable to associate degree.

**MATH 019****Support for Math 219 Probability and Statistics**

Unit(s): 0.5 Class Hours: 36.0 Lab total.

Corequisite: MATH 219.

*A review of mathematics needed to be successful in Probability and Statistics. Topics are drawn from Pre-Algebra and Algebra. Intended to be taken concurrently with Math 219 for students who did not directly place into Math 219 or for students who would like to supplement their learning with prerequisite skills.*

**MATH 030****Coping with Math Anxiety**

Unit(s): 1.0 Class Hours: 18.0 Lecture total.

Covers the concept of math anxiety - what causes it and how to overcome it. Includes review and practice of basic math skills.

**MATH 040****Support for College Algebra**

Unit(s): 0.5 Class Hours: 36.0 Lab total.

Corequisite: MATH 140.

*A review of mathematics topics from Elementary and Intermediate Algebra which are needed to be successful in College Algebra. Intended to be taken concurrently with College Algebra (Math 140) for students who did not directly place into Math 140, or for students who would like to supplement their learning with prerequisite skills.*

**MATH 083****Beginning and Intermediate Algebra for Liberal Arts and Social Science**

Unit(s): 6.0 Class Hours: 108.0 Lecture total.

A combined course in algebra that includes systems of equations, inequalities, graphs and functions, radicals, quadratic polynomials, rational expressions, exponential and logarithmic functions, and problem solving aimed specifically at liberal arts and social science majors.

**MATH 084****Beginning and Intermediate Algebra**

Unit(s): 6.0 Class Hours: 108.0 Lecture total.

A combined course in algebra that includes systems of equations; inequalities, graphs and functions; radicals, quadratic polynomials, rational expressions; exponential and logarithmic functions, and problem solving.

**MATH 105****Mathematics for Liberal Arts Students**

Unit(s): 3.0 Class Hours: 54.0 Lecture total.

*Prerequisite: MATH 083 or MATH 084 with a minimum grade of C OR equivalent skills as measured by placement into Math 105 according to the Santa Ana College Math Department's placement standards.*

An overview of mathematics for the liberal arts student. Topics will include problem solving, financial management, probability, statistics, and selected other topics such as set of theory, geometry, logic, mathematical modeling, and the history of mathematics. CSU/UC

**MATH 140****College Algebra**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 084 with a minimum grade of C OR equivalent skills as measured by placement into Math 140 according to the Santa Ana College Math Department's placement standards.*

Survey of advanced topics in algebra: equations, inequalities and functions involving polynomials, rationales, exponentials, and logarithms with applications and graphing; sequences and series. CSU/UC

**MATH 141 (NOTE: Only 4 of 4.5 units are UC transferable)****College Algebra with Support**

Unit(s): 4.5 Class Hours: 72.0 Lecture, 36.0 Lab total.

*Prerequisite: MATH 084 with a minimum grade of C OR equivalent skills as measured by placement into Math 140 according to the Santa Ana College Math Department's placement standards.*

Survey of advanced topics in algebra: equations, inequalities and functions involving polynomials, rationales, exponentials, and logarithms with applications and graphing; sequences and series. Course includes just-in-time review of topics from arithmetic, Elementary Algebra, Intermediate Algebra, and/or other topics as necessary. Intended for students who did not directly place into Math 140 or for students who would like to supplement their learning with prerequisite skills needed for College Algebra. CSU/UC

**MATH 145 (C-ID MATH 130)****Finite Mathematics**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 084 with a minimum grade of C OR equivalent skills as measured by placement into Math 145 according to the Santa Ana College Math Department's placement standards.*

Linear systems and matrix algebra, linear programming and the simplex method, algebra of sets, introduction to probability and counting, the binomial distribution, descriptive statistics, introduction to the normal curve.

Application to the fields of business, economics, and biological and behavioral sciences are emphasized. CSU/UC

**MATH 150 (C-ID MATH 140)****Calculus for Biological, Management and Social Sciences**

Unit(s): 5.0 Class Hours: 90.0 Lecture total.

*Prerequisite: MATH 140 OR Math 145 with a minimum grade of C OR placement into Math 150 according to the Santa Ana College Math Department's placement standards. MATH 140.*

Single and multi-variable calculus including limits, derivatives, integrals, exponentials, and logarithmic functions and partial derivatives. Applications are drawn from biology, social science, and business. CSU/UC

**MATH 162 (C-ID MATH 851)****Trigonometry**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 140 with a minimum grade of C OR equivalent skills as measured by placement into Math 162 according to the Santa Ana College Math Department's placement standards.*

Angles and their measurement, trigonometry functions and their applications, including vector problems. Use of trigonometric identities. Graphing the basic functions and variations, solving trigonometric equations. Graphing using polar coordinates, and use of complex numbers. CSU

**MATH 170 (C-ID MATH 155)****Pre-Calculus Mathematics**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 162 with a minimum grade of C OR equivalent skills as measured by the Math Level 4 Exam and a course equivalent to Mathematics 160.*

Advanced algebraic topics. Study of rational, trigonometric, exponential and logarithmic functions, and analytic geometry. Preparation for Mathematics 180. CSU/UC

**MATH 180 (C-ID MATH 210, C-ID MATH 900S = MATH 180 or 180H + MATH 185)****Single Variable Calculus I**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 140, MATH 162 OR MATH 170 with a minimum grade of C OR equivalent skills as measured by placement into Math 180 according to the Santa Ana College Math Department's placement standards.*

Limits and continuity, derivatives and integrals of algebraic, trigonometric, and other transcendental functions. Applications including extrema tests, related rates, and areas. CSU/UC

**MATH 180H (C-ID MATH 210 C-ID MATH 900S = MATH 180 or 180H + MATH 185))****Honors Single Variable Calculus I**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: A cumulative GPA of 3.0 or higher in college work (or high school for first-term students) AND Mathematics 170 with a minimum grade of C or better or equivalent skills as measured by the Mathematics Level 4 Exam and a course equivalent to Mathematics 170.*

An in-depth study of limits and continuity, derivatives and integrals of algebraic, trigonometric, and other transcendental function with the emphasis on theory and challenging problems. Applications include extrema tests, related rates and areas, volumes, arc length, and surface areas. CSU/UC

**MATH 185 (C-ID MATH 220, C-ID MATH 900S= MATH 180 OR 180H + MATH 185)****Single Variable Calculus II**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 180 or MATH 180H with a minimum grade of C.*

Applications of integrals, including volumes, work, arc length, and surface area. Integration techniques, differential equations, conics, parametric equations, polar coordinates, improper integrals, sequences, and infinite series. CSU/UC

**MATH 204 (C-ID MATH 120)****Mathematical Concepts for Elementary School Teachers**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 083 or MATH 084 with a minimum grade of C OR equivalent skills as measured by placement into Math 204 according to the Santa Ana College Math Department's placement standards.*

Designed for prospective elementary teachers, the course emphasizes problem solving techniques and mathematical structure associated with numeration, set theory, elementary number theory, real number system, ratio, proportion, and percent. The course includes instructional delivery design and activity-based explorations. CSU/UC

**MATH 204L****Mathematics Content for Elementary Math Teachers (Lab)**

Unit(s): 0.5 Class Hours: 36.0 Lab total.

Corequisite: MATH 204.

Students in Math 204L will receive individual and/or group instruction advancing students conceptual understanding of the mathematics needed to teach elementary school. Instruction integrates hand-ons learning, projects, and presentations. (Pass/No Pass Only) CSU

**MATH 219 (C-ID SOCI 125, C-ID MATH 110)****Statistics and Probability**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 083 OR MATH 084 with a minimum grade of C OR equivalent skills as measured by placement into Math 219 according to the Santa Ana College Math Department's placement standards.*

Beginning course in statistics. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics. Includes use of technology. CSU/UC

**MATH 219H (C-ID SOCI 125, C-ID MATH 110)****Honors Statistics and Probability**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: A cumulative GPA of 3.0 or higher in college work (or high school for first-term students) AND MATH 083 or MATH 084 with a minimum grade of C or equivalent skills as measured by placement into Math 219 according to the Santa Ana College Math Department's placement standards.*

Enhanced format for the beginning course in statistics and probability, using a seminar approach and computers and individual research, and presentations. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics, with applications designed around the individual interests of students. CSU/UC

**MATH 221 (C-ID MATH 110)****Statistics and Probability with Support**

Unit(s): 4.5 Class Hours: 72.0 Lecture, 36.0 Lab total.

*Prerequisite: MATH 083 or MATH 084 with a minimum grade of C OR equivalent skills as measured by placement into Math 221 according to the Santa Ana College Math Department's placement standards.*

*Beginning course in statistics. Includes descriptive statistics, graphical displays of data, probability, confidence intervals, hypothesis testing, regression, contingency tables, ANOVA, and non-parametric statistics. Includes use of technology. Integrated review includes concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and critical thinking skills from descriptive statistics that are needed to understand the basics of college-level statistics. Intended for students who did not directly place into Math 219 or for students that would like to supplement their learning with prerequisite skills needed for Statistics. CSU/UC*

**MATH 280 (C-ID MATH 230)****Intermediate Calculus**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 185 with a minimum grade of C.*

Vectors and three-dimensional space, functions of several variables, partial derivatives, and multiple integrals. Vector calculus, Green's Theorem, Stoke's Theorem, and the Divergence Theorem. CSU/UC

**MATH 287 (C-ID MATH 910S)****Introduction to Linear Algebra and Differential Equations**

Unit(s): 5.0 Class Hours: 90.0 Lecture total.

*Prerequisite: MATH 280 with a minimum grade of C.*

Topics include matrices, determinants, vector spaces, linear systems of equations, linear product spaces, first and second order differential equations, systems of differential equations, and the Laplace transform. CSU/UC

**MATH 319****Quantitative Research Methods for Healthcare Professionals**

Unit(s): 4.0 Class Hours: 72.0 Lecture total.

*Prerequisite: MATH 219 or MATH 219H or PSYC 210 with a minimum grade of C. Limitation on enrollment: Student must be admitted to the Occupational Studies program*

*This course will develop skills and tools for understanding and performing quantitative research in healthcare sciences. The focus of the course will be on statistical research methods prevalent in healthcare sciences: including principles of experimental design, appropriate sampling, and running quantitative tests to determine the validity of claims.*

**MEDICAL ASSISTANT (MA)****MA 001****Cooperative Work Experience Education - Occupational**

Unit(s): 1.0-4.0 Class Hours: 60.0-300.0 Lab total.

*Prerequisite: MA 051A, MA 051B, MA 053 and MA 055 with minimum grade of C.*

This work experience course of supervised employment is designed to assist students to acquire desirable work habits, attitudes and skills in a field related to the students' major so as to enable them to become production employees. This course also provides students with career awareness for jobs. 75 hours of paid work or 60 hours of un-paid work equals one unit of course credit. Student repetition is allowed per Title 5, Section 55253.

**MA 020****Bloodborne and Airborne Pathogen Standards**

Unit(s): 0.5 Class Hours: 9.0 Lecture total.

Presentation of California Occupational Safety and Health Act (Cal-OSHA) Bloodborne and Airborne Pathogen Standards for occupational at-risk exposure to hepatitis, HIV-AIDS, and Tuberculosis including compliance requirements, exposure control measures, exposure determination, protective equipment, and post exposure practices.

**MA 030****Phlebotomy**

Unit(s): 1.0 Class Hours: 13.5 Lecture, 13.5 Lab total.

This phlebotomy course is designed for health care workers and provides a comprehensive introduction to the practice of phlebotomy, with focus on safety procedures, equipment and point-of-care testing.

**MA 051A****Beginning Medical Terminology**

Unit(s): 3.0 Class Hours: 54.0 Lecture total.

Introduction to medical terms including structural analysis of prefixes, combining form/roots, and suffixes. Emphasis on terms related to anatomy, physiology, diagnostic tests and pathology of the digestive, renal-urinary, and reproductive systems. Also, terms related to pregnancy and the newborn.