

- MATH 1A Calculus 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 49B with a grade of C or better, or appropriate score on Calculus Placement Test within the past calendar year.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
Fundamentals of differential calculus.
(MATH 1A + 1B = CAN MATH 18) (MATH 1A + 1B + 1C = CAN MATH SEQ B) (MATH 1A + 1B + 1C + 1D = CAN MATH SEQ C)
- MATH 1B Calculus 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 1A and Mathematics 49B, both with a grade of C or better; or appropriate score on Calculus Placement Test within the past calendar year.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
Fundamentals of integral calculus.
(MATH 1A + 1B = CAN MATH 18) (MATH 1A + 1B + 1C = CAN MATH SEQ B) (MATH 1A + 1B + 1C + 1D = CAN MATH SEQ C)
- MATH 1C Calculus 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 1B with a grade of C or better, or equivalent.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
Infinite series, lines and surfaces in three dimensions, vectors in two and three dimensions, parametric equations of curves. Derivatives and integrals of vector functions.
(CAN MATH 20) (MATH 1A + 1B + 1C = CAN MATH SEQ B) (MATH 1A + 1B + 1C + 1D = CAN MATH SEQ C)
- MATH 1D Calculus 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 1C with a grade of C or better, or equivalent.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
Partial derivatives, Multiple Integrals, Vector Calculus.
(CAN MATH 22) (MATH 1A + 1B + 1C + 1D = CAN MATH SEQ. C)
- MATH 2A Differential Equations 5 Units**
(Formerly Mathematics 2C.)
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 1D with a grade of C or better.
Five hours lecture.
Ordinary differential equations and selected applications.
(CAN MATH 24)
- MATH 2B Linear Algebra 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 1D with a grade of C or better.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
Linear algebra and selected topics of mathematical analysis.
(CAN MATH 26)
- MATH 10 Elementary Statistics and Probability 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 114 with a grade of C or better; or qualifying score on Intermediate Algebra Placement Test within the past calendar year.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
Introduction to data analysis making use of graphical and numerical techniques to study patterns and departures from patterns. The student studies randomness with an emphasis on understanding variation, collects information in the face of uncertainty, checks distributional assumptions, tests hypotheses, uses probability as a tool for anticipating what the distribution of data may look like under a set of assumptions, and uses appropriate statistical models to draw conclusions from data. The course introduces the student to applications in engineering, business, economics, medicine, education, the sciences, and those pertaining to issues of contemporary interest. The use of technology (computers or graphing calculators) will be required in certain applications. Where appropriate, the contributions to the development of statistics by men and women from diverse cultures will be introduced.
(CAN STAT 2)

- MATH 11 Finite Mathematics 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Qualifying score on the Math Placement Test within the past calendar year; or Mathematics 114 with a grade of C or better.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture or; Four hours lecture and three hours laboratory or; Four hours lecture and two hours lecture-laboratory.
Application of linear equations, sets, matrices, linear programming, mathematics of finance and probability to real-life problems. Emphasis on the understanding of the modeling process, and how mathematics is used in real-world applications.
(CAN MATH 12)
- MATH 12 Introductory Calculus for Business and Social Science 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 11.
Five hours lecture.
Introduction to limits, differentiation, and integration of single variable functions. Differentiation of multivariate functions. Applications in business, economics, and social science.
(CAN MATH 34)
- MATH 22 Discrete Mathematics 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 49A with a grade of C or better, or equivalent.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
Elements of discrete mathematics with applications to computer science. Topics include methods of proof, mathematical induction, logic, sets, relations, graphs, combinatorics, and Boolean algebra.
(CAN CSCI 26)
- MATH 23 Engineering Statistics 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 1C with a grade of C or better.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
The collection and analysis of information making use of graphical and numerical techniques; the student studies discrete, continuous, cumulative, and joint probability distribution functions and makes use of statistical inference, experimental design, and equation fitting, when appropriate. The course exposes the student to a variety of engineering applications. Certain applications require the use of technology (computers or graphing calculators). Engineering Statistics is a relatively new area of statistics developed in approximately the last 30 years.
- MATH 44 Introduction to Contemporary Mathematics 5 Units**
(See general education pages for the requirement this course meets.)
Prerequisite: Qualifying score on the Intermediate Algebra Placement Test within the past calendar year; or Mathematics 114 with a grade of C or better.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture.
A survey of selected topics from contemporary mathematics, including problem solving techniques and connections between mathematics and culture. Includes a selection of introductory topics from symmetry; graph theory; chaos and fractals; topology; number theory; geometry; combinatorics and counting; the mathematics of social choice; data analysis, probability and statistics; consumer mathematics and personal financial management.
- MATH 46 Mathematics for Elementary Education 5 Units**
(Formerly Mathematics 63.)
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 114 with a grade of C or better.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Education 46. Student may enroll in either department, but not both, for credit.)
Five hours lecture.
Designed for prospective elementary and middle school teachers. The class is an introduction to the discipline of mathematics as the use of logical, quantitative, and spatial reasoning in the abstraction, modeling, and problem solving of real-world situations. The main topics in the course include the origins of mathematics, mathematical reasoning and problem solving strategies, theory of sets, integers and integral number theory, rational numbers and proportion, real numbers and decimal notation, and measurement. Throughout the course students will experience the learning of mathematics in a way that models how they can create an active learning environment for their future students.

MATH 49A	Pre-Calculus Algebra	5 Units	<i>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.</i>
(See general education pages for the requirement this course meets.)			<i>Five hours lecture or; Four hours lecture and three hours lab or; Four hours lecture and two hours lecture-laboratory.</i>
Prerequisite: Mathematics 51 with a grade of C or better, or satisfactory score on Calculus Readiness test within the last calendar year.			Application of linear functions, quadratic functions and linear systems to problems. Emphasis on the development of models or real world applications and interpretation of their characteristics.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.			
Five hours lecture.			
Polynomial, rational, exponential and logarithmic functions, graphs, solving equations; conic sections.			
MATH 49B	Pre-Calculus Algebra	5 Units	MATH 249A Academic Excellence in Pre-calculus 1 Unit
(See general education pages for the requirement this course meets.)			<i>Credit course - Does not apply to De Anza Associate degree.</i>
Prerequisite: Mathematics 49A with a grade of C or better, or satisfactory score on the Calculus Readiness test within the last calendar year.			<i>Corequisite: Mathematics 249A students must also enroll in Mathematics 49A.</i>
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.			<i>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.</i>
Five hours lecture.			<i>Three hours laboratory.</i>
Systems of equations and inequalities, vectors, lines and planes, sequences and series, polar coordinates.			Critical thinking and skills reinforcement in a pre-calculus setting; cooperative learning/study techniques, concept development, and use of technology.
MATH 51	Trigonometry	5 Units	MATH 249B Academic Excellence in Pre-calculus 1 Unit
(See general education pages for the requirement this course meets.)			<i>Credit course - Does not apply to De Anza Associate degree.</i>
Prerequisite: Qualifying score on the Intermediate Algebra Placement Test within the past calendar year; or a grade of C or better in Mathematics 114.			<i>Corequisite: Mathematics 249A students must also enroll in Mathematics 49B.</i>
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.			<i>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.</i>
Five hours lecture.			<i>Three hours laboratory.</i>
The theory of trigonometric functions and their applications.			Critical thinking and skills reinforcement in a pre-calculus setting; cooperative learning/study techniques, concept development, and use of technology.
(CAN MATH 8)			
MATH 77	Special Projects in Mathematics	1 Unit	MATH 251 Academic Excellence in Trigonometry 1 Unit
MATH 77X		2 Units	<i>Credit course - Does not apply to De Anza Associate degree.</i>
MATH 77Y		3 Units	<i>Corequisite: Mathematics 251 students must also enroll in Mathematics 51.</i>
(Formerly Mathematics 40, 40X, and 40Y.)			<i>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.</i>
Three hours laboratory for each unit of credit.			<i>Three hours laboratory.</i>
(Any combination of Mathematics 77, 77X, and 77Y may be taken up to six times, not to exceed 18 units, as long as the topics/projects are different each time.)			Critical thinking and skills reinforcement in a trigonometry setting; cooperative learning/study techniques, concept development, and use of technology.
Pass-No Pass (P-NP) course.			
Individual special reading, writing, or study projects in mathematics as determined in consultation with the instructor.			
MATH 104	Applied Algebra Plus	7 Units	MET 10 Weather Processes 4 Units
(Student may not receive credit for Mathematics 104 and 212.)			<i>(See general education pages for the requirement this course meets.)</i>
Prerequisite: Qualifying score on the Math Placement Test within the last calendar year; or Mathematics 210.			<i>Prerequisite: Mathematics 212 or equivalent.</i>
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.			<i>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.</i>
Seven hours lecture; or five hours lecture, four hours lecture-laboratory.			<i>Four hours lecture.</i>
Fundamental algebraic operations on real numbers and real variables with emphasis on linear functions and equations, polynomials, plane geometry, elementary trigonometry and their applications as they relate to applied technologies.			Introduction to the principles of the science of meteorology including: history of the science; origin, evolution and structure of the atmosphere; major atmospheric variables that determine weather; global and local wind circulation; air masses and frontal systems; birth and development of extratropical and tropical cyclones and associated severe weather phenomena; weather map analysis and interpretation; objective techniques used by meteorologists to forecast weather.
MATH 114	College Math Preparation Level 3: Intermediate Algebra	5 Units	MET 10L Meteorology Laboratory 1 Unit
Prerequisite: Qualifying score on the Math Placement Test within the last calendar year; or Mathematics 212 with a grade of C or better.			<i>(Formerly Meteorology 50L.)</i>
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.			<i>(See general education pages for the requirement this course meets.)</i>
Five hours lecture; or four hours lecture and three hours laboratory; or four hours lecture and two hours lecture-laboratory.			<i>Prerequisite: Mathematics 212 or equivalent.</i>
Application of exponential and logarithmic functions, rational functions, and sequences and series to problems. Emphasis on the development of models of real world applications and interpretation of their characteristics.			<i>Prerequisite or Corequisite: Meteorology 10L students must also enroll in, or have already completed, Meteorology 10.</i>
MATH 210	College Math Preparation Level 1: Pre-Algebra	5 Units	<i>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.</i>
(Formerly Mathematics 110.)			<i>Three hours laboratory.</i>
Credit course - Does not apply to De Anza Associate degree.			Introductory weather lab in which students work with observational data, graphics products, charts and instruments used by synoptic meteorologists to forecast weather. Lab sessions will include current weather products downloaded from the American Meteorological Society's "Online Weather Studies" home page which has been specifically designed for this course and from De Anza College's automated rooftop weather station. Students will practice the analysis and decision-making skills employed by meteorologists to diagnose air patterns, understand air motions and predict future atmospheric conditions.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.			
Five hours lecture or; four hours lecture and three hours laboratory or; four hours lecture, two hours lecture-laboratory.			
Use of basic arithmetic in application problems, estimation, the real number system, variables and linear equations, graphs of linear equations and the Cartesian coordinate system, the concept of function.			
MATH 212	College Math Preparation Level 2: Beginning Algebra	5 Units	MET 77 Special Projects in Meteorology 1 Unit
(Formerly Mathematics 112.)			MET 77X 2 Units
Credit course - Does not apply to De Anza Associate degree.			MET 77Y 3 Units
Prerequisite: Qualifying score on the Math Placement Test within the last calendar year; or Mathematics 210 with a grade of C or better.			<i>Prerequisite: Consent of instructor and division dean.</i>
Three hours laboratory for each unit of credit.			<i>Three hours laboratory for each unit of credit.</i>
(Any combination of Meteorology 77, 77X, and 77Y may be taken up to six times, not to exceed 18 units, as long as the topics/projects are different each time.)			<i>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.</i>
Pass-No Pass (P-NP) course.			
Individual special reading, writing, or study projects in meteorology as determined in consultation with the instructor.			

Meteorology