

Math

Course	Freshmen	Sophomores	Juniors	Seniors	Prerequisite
Algebra M018, M144, M802 (Bilingual)	X	X	X	X	Department recommendation
Algebra Honors M145	X				Department recommendation
Geometry M146, M175 (Bilingual)		X	X	X	Sophomore standing or department recommendation
Geometry Honors M147	X	X			Algebra Honors or department recommendation
Algebra II M180		X	X	X	Completion of Algebra/Algebra Enhanced and Geometry/Geometry Enhanced
Algebra II with Trigonometry M148		X	X	X	Completion of Algebra and Geometry
Algebra II with Trigonometry Honors M149		X	X	X	Geometry Honors or department recommendation
AP Statistics M155			X	X	Department
Pre-Calculus and Analysis Honors M152			X	X	Algebra II with Trigonometry
Calculus PM30		X	X	X	Pre-Calculus and Analysis Honors
AP Calculus AB M153				X	Algebra II with Trigonometry Honors/Pre-Calculus Honors or dept. recommendation

Algebra M018, M144, M802 (Bilingual)

Grades 9-12

Year course – 1 credit

Prerequisite: Department recommendation

This course serves as a basis for all college preparatory courses that follow and for college courses within the fields of agriculture, architecture, business, engineering, law, life sciences, medicine, physical sciences, and several social sciences. Algebra is a course designed for the math student to think in both concrete and abstract terms. Students should be proficient in the use of basic properties and definitions. Students will become competent in problem solving techniques and will be able to translate English into the language of mathematics and the reverse.

Algebra Honors M145

Grade 9 only

Year course - 1 credit

Prerequisite: Department recommendation

This course covers the same topics outlined for Algebra but in greater depth and breadth. It is for students with above average ability and genuine interest in mathematics. It uses an in-depth study approach and makes it possible for students to prepare for and complete Calculus while in high school.

Geometry M146, M175 (Bilingual)

Grades 10-12

Year course – 1 credit

Prerequisite: Sophomore standing or department recommendation

This course develops those skills necessary to analyze, categorize, and draw conclusions about points, lines, angles, planes, and space. Properties of figures are examined, developed, and applied to solve a variety of problems. Congruency and similarity of figures are investigated and applied. Direct and indirect measurement techniques are used to determine angle measure, perimeter, area, and volume of figures. Algebraic techniques are used to symbolically represent and solve geometric problems in a wide variety of settings. Deductive reasoning skills are developed through work with formal and informal proofs.

Geometry Honors M147*Grades 9 & 10 only**Year course - 1 credit**Prerequisite: Algebra Honors or department recommendation*

This course covers all of the same topics outlined for Geometry but in greater depth and breadth. Additional geometric concepts are covered as well. Student projects and in-depth investigations of special topics will be assigned. It is for students with above average ability and genuine interest in mathematics. This course helps provide the foundation necessary for success in Advanced Placement classes. This course continues and expands on topics introduced in Algebra I. Students develop in-depth understanding of

Algebra II M180*Grades 10-12**Year course - 1 credit**Prerequisite: Completion of Algebra/Algebra Enhanced and Geometry/Geometry Enhanced*

This course continues to expand on topics introduced in Algebra. Students develop in-depth understanding of graphing techniques and problem solving skills needed to solve algebraic problems. Linear, quadratic, polynomial and exponential functions are explored using traditional, as well as modern technology. Applications to careers and real-life are emphasized.

Algebra II with Trigonometry M148*Grades 10-12**Year course - 1 credit**Prerequisite: Completion of Algebra and Geometry*

This course continues and expands on topics introduced in Algebra I. Students develop in-depth understanding of graphing techniques, systems, and the complex number system. Linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions are explored using traditional as well as modern technology. Successful completion of this course is generally expected for admittance to most four-year colleges.

Algebra II with Trigonometry Honors M149*Grades 10-12**Year course - 1 credit**Prerequisite: Geometry Honors or department recommendation*

This course covers all of the same topics outlined for Advanced Algebra and Trigonometry but in greater depth and breadth. Additional advanced topics are covered as well. Student projects and in-depth investigations of special topics will be assigned. It is for students with above average ability and genuine interest in mathematics. This course helps provide the foundation necessary for success in Advanced Placement classes.

Statistics PM31*Grades 11, 12**Year course - 1 credit**Prerequisite: None*

This course provides a foundation of statistical analysis, probability, data analysis, statistical inference, distributions, statistical tests and the principles of regression are topics of study. Particular emphasis is given to applications of these tools and techniques in the areas of science, medicine, business, and the social sciences.

AP Statistics M155*Grades 11, 12**Year course - 1 credit**Prerequisite: Department*

This course is intended for the student interested in earning college credit through Advanced Placement testing. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns and statistical inference. All students are strongly encouraged to take the Advanced Placement examination in statistics.

Pre-Calculus and Analysis Honors M152, PM13*Grades 11, 12**Year course - 1 credit**Prerequisite: Algebra II with Trigonometry*

This course is intended for the college-bound student who is preparing for Calculus. Instruction emphasizes the study of applications of mathematics with enhanced use of graphics calculators. This course offers an in-depth study of the following topics: functions and graphs, functions and their zeros, polynomial functions, exponential and logarithmic functions, applications of trigonometry, parametric equations and polar coordinates, matrices and systems of equations and inequalities, sequences and series, and probability and statistics.

Calculus PM30

Grades 10-12

Year course - 1 credit

Prerequisite: Pre-Calculus and Analysis Honors

This course develops concepts related to differential and integral calculus. Both have mathematical and physical importance, and as such, particular emphasis is placed on both theory and application using an inquiry-based approach.

AP Calculus AB M153

Grade 12

Year course – 1 credit

Prerequisite: Algebra II with Trigonometry Honors/Pre-Calculus Honors or department recommendation

This course is intended for the mature student interested in earning college credit. Students investigate differential and integral calculus with algebraic and transcendental functions. Special emphasis is given to techniques of integration and application to maxima and minima, related rate, curve sketching, area and volume problems. Analytic geometry is also studied with emphasis on conic sections and determination of the equations of curves. Students interested in pursuing careers in engineering, medicine, and the sciences should consider this course necessary for these careers.

Students who want to enroll for college credit must meet the Triton placement criteria of an ACT Math score of 24 or above or score 8 on the Triton Math Placement Exam. Students who enroll for college credit must successfully complete this course with a final grade of C or better each semester to receive credit in Math 131 at Triton College. All students are strongly encouraged to take the Advanced Placement examination in Calculus.