# AP PRE-CALCULUS

The course has a unique mission: to make the benefits of AP coursework broadly accessible, particularly to those students who've never been in an AP course. Taking even one AP course changes student outcomes, substantially improving their first-year college GPA and on-time college graduation rates. It's designed for students who've completed Geometry and Algebra 2, or for students who've completed Integrated Math 3. Students who've taken these courses at any level have covered all the content necessary for AP Precalculus. This means every student ready for precalculus is ready for AP Precalculus. AP Precalculus contains content similar to existing high school precalculus courses—which are, by nature, already advanced.
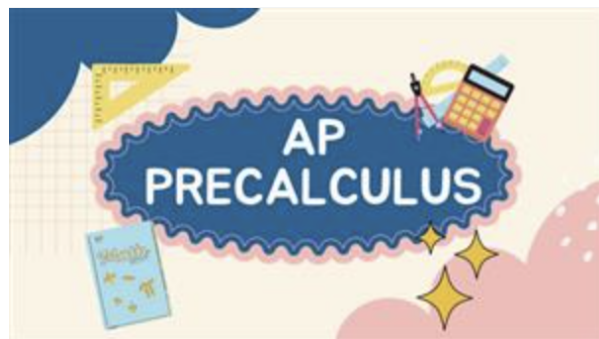
Course Description

MODELING REAL-WORLD DATA Students will apply the mathematical tools they acquire in real-world modeling situations. By examining scenarios, conditions, and data sets and determining and validating an appropriate function model, they gain a deeper understanding of the nature and behavior of each function type.

EXPLORING MULTIPLE REPRESENTATIONS Students will examine functions through multiple representations. They will gain a deeper understanding of functions by examining them graphically, numerically, verbally, and analytically.

MASTERING SYMBOLIC MANIPULATION Students will develop rigorous symbolic manipulation skills needed for future mathematics courses. They learn that a single mathematical object can have different analytical representations depending on the function type or coordinate system, and that the different analytical representations reveal different attributes of the mathematical object.

HARNESSING A DYNAMIC WORLD Students will engage in function building that reflects the dynamic, shifting reality of how things change. Every function representation characterizes the way in which values of one variable simultaneously change as the values in another variable change. This understanding of functions and their graphs as embodying dynamic covariation of quantities prepares students to better understand an ever-changing world.

Why YOU Should Take (PRE-CALCULUS)

- BENEFITS FOR STUDENTS: Powerful Incentives AP Precalculus students can earn college advanced placement, credit, or both—a powerful motivator to take 4 years of math. Students who take math continuously in high school are 140.5% more likely to be considered "college ready" and "calculus ready." More Time AP Precalculus students have more time with their teacher to better develop content knowledge and skills. They gain 140 hours of time with their AP teacher versus about 48 hours in a traditional college course and in a smaller, familiar setting. Free Supports AP Precalculus students get access to digital learning and practice resources to use with their existing textbook.

GRADING

- 10% PARTICIPATION/ AP CLASSROOM/HOMEWORK
- 20% CHECKPOINTS
- 50% ASSESSMENTS
- 20% FINAL EXAM

ASSESSMENT/USING and INTERPRETING AP SCORES

For each unit there will be two individual assessments that will assess students' knowledge on the AP Precalculus learning targets.

Each assessment will cover learning targets taught in the current unit and may as well cover learning targets in previous units.

AP Score	Credit Recommendation/Course Grade Equivalent
1	No Recommendation; NA
2	Possibly Qualified; NA
3	Qualified; B-, C+, C
4	Well-Qualified; A-, B+, B
5	Extremely Well-Qualified; A