

## **MATHEMATICS AP COURSES**

### **STATISTICS AP**

*Prerequisites: Completion of Algebra 2/Trig or Algebra 2, with a grade of C or better.*

A solid understanding of statistical concepts will be gained by observing patterns (and departures from patterns), determining the reasonableness of conclusions from statistical studies, planning to collect data in ways that make valid conjectures possible, as well as modeling and predicting from data. Students in this course may elect to take the College Board AP Statistics exam given in May, or they might just want a better understanding of discrete mathematics. A graphing calculator is required. A TI-83 or TI-84 graphing calculator is recommended, and a TI-86 is acceptable. TI-85 and TI-89 models are not appropriate.

Homework: 2-4 hours per week

Summer assignment: None

Pace: about half the speed of college statistics

Rigor: moderate

### **CALCULUS AB AP**

*Prerequisites: Introductory Analysis with a grade of C or better.*

Advanced Placement Calculus AB is an advanced placement course in differential and integral Calculus equivalent to approximately the first two quarters or the first semester of introductory Calculus courses taught at many colleges and universities. Students who complete Calculus AB may subsequently take Calculus BC or Statistics. Course content is aligned with the College Board Calculus AB course description. A TI-83 or TI-84 graphing calculator is recommended.

Homework: 4-6 hours per week

Summer assignment: None so far

Pace: A bit slower than college calculus (80%?)

Rigor: rigorous

### **CALCULUS BC AP**

*Prerequisites: Introductory Analysis with a grade of A or AB Calculus with a grade C or better and at least a score of 33 on the MDTP Calculus Readiness test.*

Calculus BC is an intensive, full-year course in Calculus, considerably more extensive than Calculus AB. All of the Calculus topics in Calculus AB are included as well as infinite series and multi-variable Calculus. This course parallels the full-year course of Calculus now given at many colleges and universities. A TI-83 or TI-84 graphing calculator is recommended.

Homework: 8-10 hours per week

Summer assignment: Possibly, but not long.

Pace: faster than college calculus (125%?)

Rigor: extremely rigorous