

Kennedy High School Course Syllabus

Class: AP Calculus AB

Date: 2018-2019

Teacher: Mr. Ryan Keith

Office Hours: Mo,We,Th,Fr 7:00-7:40 am M,Tu,We,Th,F 2:37-2:55 pm

***There are some factors affecting availability such as coaching responsibilities in fall and spring, faculty/other meetings that get in the way, etc.*

Textbook: *Calculus: Concepts and Applications Key Curriculum Paul A. Foerster*

Course description:

In Advanced Placement Calculus AB, students build on their knowledge gained from previous math classes, especially functions, trigonometry, and algebraic manipulation.

Students develop the idea of a rate of change into the concept of a derivative. They then learn several ways to find, calculate, and approximate derivatives and use them to solve a wide variety of problems, including problems involving optimization and motion.

Students develop the idea of net accumulation of change into the concept of a definite integral. They then learn several ways to calculate and approximate integrals and use them to solve a wide variety of problems, including problems involving area, volume, motion, and exponential growth.

Students will understand the Fundamental Theorem of Calculus and the relationship between derivatives and integrals. Students will be able to solve separable differential equations and use them in a wide variety of applications.

Students will use technology, especially graphing calculators, to solve real world problems throughout the course.

***Advanced Placement Calculus AB follows precisely the course outline developed and prescribed by the College Board (the governing body of the AP program). For a detailed look at this outline visit collegeboard.org and navigate to the Calculus AB section of the website.*

Instructional Philosophy:

AP Calculus AB is a rigorous college level course meant only for highly talented and motivated math students. It is expected that all students will attempt the Advanced Placement Exam in early May so as to possibly earn college credit. Homework will be given on most nights, though not necessarily collected the next day, and I believe that the practice it provides is a critically important piece of the class. The material we will be covering will be very new and different from the material in your previous math classes, so keeping up day by day is essential. Everything we do in this class will be done with the AP exam in mind, and a portion of the class will be devoted to preparing for that exam as it draws closer. I am open to the concept of retakes or spending extra time going over an assignment or exam in order to better your grade, but it takes something special to earn an A.

Grading Plan:

Your grade will be calculated based on the following percentages:

- *Homework checks/Worksheets/Other daily assignments (FORMATIVE MATERIAL).....10%
- *Quizzes/Chapter Exams (SUMMATIVE MATERIAL).....80%
- *Final Exam (ALSO SUMMATIVE).....10%

(these are based on a sliding scale established by the math department with summative material counting for a progressively higher percentage as the courses get harder)

A...93-100%	A-...90-92.9%	B+...87-89.9%	B...83-86.9%	B-...80-82.9%	C+...77-79.9%
C...73-76.9%	C-...70-72.9%	D+...67-69.9%	D...63-66.9%	D-...60-62.9%	F...below 60%

Parent Communication:

My direct to room number is 681-5138. I would prefer calls of course before/after school or during my prep hour which is 2nd period (9:00-9:45). My email address is rkeith@isd271.org

Please follow the course calendar, view my profile, see this syllabus, and otherwise keep up with your student's progress at the Bloomington HUB. Don't forget Infinite Campus as well to see grade updates.

Opportunities for Extra Help:

As mentioned above, I have available office hours during which I would be happy to work with any of my students. There are also academic seminar opportunities built into several school days that give me the chance to hand pick students who need extra help or makeup sessions. Finally, Kennedy has several other interventions in place (lunch lab, after school homework help, blue/gold support teams, etc.) that exist to help kids reach their fullest potential. All your student needs to do is talk to me and I will find a way to help them out! I find one on one time with a student to be extremely productive and useful and it always seems to make a big difference. Don't wait until you receive a bad score, be proactive!!