

AP Calculus AB
Megan Lawson ~ Room 323

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Welcome to Advanced Placement Calculus AB. The two major branches of calculus are differential and integral calculus. We will be studying differential calculus S1 and integral calculus S2. Students will be asked to examine calculus using a variety of methods and techniques including experiments, investigations, skills practice, projects, class discussions, and homework. It is expected that students who take AP Calculus AB will be prepared for the Advanced Placement exam in May, which, if passed, will allow you to earn college credit for semester 1 of college Calculus. In order to earn honors credit in AP Calculus AB, you must take the AP exam.

Major Text

Finney, R., Demana, F., Waits, B., and Kennedy, D. *Calculus – Graphical, Numerical, Algebraic*. 4th edition. Boston: Prentice Hall, 2012. ISBN: 0-13-317922-2

You may get your own copy of this book online or one will be provided for you the first week of class.

Grading:

Homework and Classwork: (20% of total grade)

The homework and classwork completed through each semester will contribute to the final overall homework/classwork grade. Homework is a practice of the concepts, review and extensions of lessons. You must be willing to put in the time and effort on homework if you are going to be successful in this class. We will review homework most days in class (if necessary). Homework will be due on Friday and/or unit exam days. **Late homework will be accepted up until the day of the unit test but you will lose 5% credit every day it is late.**

Assessment: (80% of total grade)

Every major mathematical concept we cover will be assessed with at least one quiz and one unit test. All tests will be modeled in the style of the AP Exam consisting of both multiple choice and free response questions. There will be a mix of calculator and non-calculator exam questions. No corrections or test retakes are allowed for unit tests, however you may complete quiz corrections on any quiz up until the unit test for partial credit up to 80%.

Projects will also be given throughout the course and will be graded similarly to exams. You will have the opportunity to revise projects for partial credit only if they are turned in on the due date.

Tutoring:

I will be available every Monday and Tuesday from 3:00-3:30 and Thursday from 7:45-8:15 for tutoring. If you have questions ask! If these times don't work for you let me know, I can generally make some other time work.

The Legacy Grant:

Our school is currently involved with the Colorado Legacy Schools Advanced Placement Program in conjunction with the National Math & Science Initiative. The AP program prepares students for college-level work and students can potentially earn college credit. Students who successfully complete an AP course are three times more likely to graduate college within 5 years. Through this grant, students will receive increased levels of support such as Saturday Study Sessions, a mock exam, test fee assistance, structured tutorials, and financial incentives.

In the Spring there will be three four-hour Saturday study sessions in preparation for the AP Exam. You will be required to attend four hours' worth of study sessions. For students who cannot attend any sessions there will be an alternative assignment. I would highly recommend you attend as many sessions as possible.

At the end of March you will also be required to take a practice AP Exam. It is important that you have the experience of sitting and taking a three hour math test before you take the actual test. This will also help me to see where we need to focus our review in April before the AP Exam.

All study sessions are held at Englewood High School from 8:45 – 12:45 and will be conducted by specialists to help prepare you for the content on the exam.

The study sessions for Math are: January 30, March 5, and April 23.

Incentives: Students can earn \$100 for every 3, 4, or 5 on Math, Science, and English AP exams. Additionally, these scores will earn students college credit.

Technology:

The use of a graphing calculator in AP Calculus is considered an essential part of the course. We will be working with the TI-Nspire Calculators (I have one to check out to every student). The replacement cost if you damage or lose the TI-Nspire Calculator is \$180.

Below is an outline of topics covered throughout the course as well as a tentative timeline. Assessments are given at the end of each unit and throughout each unit to monitor student progress.

Limits and Continuity– (3 weeks)

Derivatives – (6 weeks)

Applications of Derivatives – (5-6 weeks): End of S1

The Definite Integral– (4 weeks)

Differential Equations and Mathematical Modeling – (4 weeks)

Applications of Definite Integrals – (4 weeks)

Test Preparation/Review – (4 weeks)

AP CALCULUS AP
Parents / Guardians and students,

Please review all course, academic, attendance and tardy policies in the course syllabus and the South High Student Handbook. Please feel free to call with any questions or concerns.

Student Name: _____ Parent / Guardian Name: _____

Parent / Guardian Language Spoken at Home (in case interpreters are needed) _____

Parent / Guardian Phone Number: _____ Best daytime hours to call: _____

Parent / Guardian e-mail address: _____

(Progress reports can be e-mailed home on a regular basis if requested)

Comments or concerns:

I have read and discussed the South High Student Handbook and the expectations of AP Calculus AB with my student.

Parent Signature _____ Date _____

Student Signature _____ Date: _____

Please detach and return upper portion to Mrs. Lawson and retain the lower portion for your information.

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Math Tutoring: Monday, 3:00 – 3:30
Tuesday, 3:00 – 3:30
Thursday, 7:45 – 8:15

Homework: Homework will be assigned with each chapter and is due every Friday and/or day of exam.

Back to School Night: Thursday, September 3, 5:30 – 7:30

Parent/Teacher Conferences: Tuesday, October 20 and Thursday, October 29, 3:00 – 7:00
If this time does not work for you, please contact me to schedule an appointment at another time of your convenience.

Saturday Study Sessions: (at Englewood High School from 8:45 – 12:45) – four hours of attendance required
January 30
March 5
April 23

AP Exam & Mock Exam: - Attendance is required
Mock Exam: March TBD
AP Exam: Thursday, May 5, 8:00 am