AP® Calculus AB – Syllabus & Course Outline

"Pure mathematics is, in its way, the poetry of logical ideas." - Albert Einstein

Instructor: Mr. Joe Schuster, Dinuba High School – Dinuba, CA

Textbook: Larson et al. Calculus with Analytic Geometry, 7th ed. Houghton Mifflin: New York, 2002.

Objectives

- To master all of the AP Calculus AB standards presented by the College Board.
- To enable each student to earn a passing score on the AP Exam by mastering Calculus concepts presented in a variety of ways (graphically, numerically, analytically, and verbally).
- To encounter and engage a Calculus course that is as or more rigorous and comprehensive than an entry-level college course.
- To increase student confidence and performance in mathematics.
- To promote critical and independent thinking.

Grading

Each student's grade will be based on their relative scores in each of the weighted categories shown below on the left. Below and on the right is the overall percentage breakdown.

Grades		**Overall Grading Percentage**
• Homework	10%	A = 90% +
• Quizzes	15%	B = 80% – 89%
• Tests	45%	C = 70% – 79%
• Midterm/Final	30%	D = 60% – 69%
		F = 0% – 59%

Contact

If for any reason you need to contact me, you may:

- Call me at: (559) 595 – 7220 ext. 2536
- Google Classroom add code: u1iajsj
- E-mail me at: joseph.schuster@dinuba.k12.ca.us
- Twitter: @SchusterMath

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Homework: Homework is a vital part of an education in mathematics. It allows the student to practice and achieve mastery over the skill learned in class. Homework will be assigned each day, including Fridays. To receive full credit for assignments, ALL work must be shown and assignments must be turned in on time. No credit will be issued for late work.

Quizzes: We will have at least one quiz for each unit. Quizzes may be announced OR unannounced.

Tests: We will have one culminating test per unit. These can have multiple choice and/or free response questions. All questions will be similar to those on the AP Calculus AB Exam.

Midterm/Final: We will have a midterm exam at the end of the first semester, and a final exam at the end of the second semester.

Student Responsibilities

- Students are expected to attend class regularly and arrive on time.
- Students are expected to be prepared for class each day, with materials needed to successfully participate (paper, pencil, binder, and agenda are minimum expectations).
- Students are expected to participate in class. This includes taking notes during the daily lesson and keeping those notes in the Mathematics section of their binder.
- Write the daily homework assignment in their agenda or check the Google Classroom for the assignment.
- **Make-up work:** Students have one day to make-up homework for each day absent. It is the student's responsibility to ask for missed assignments. Students with scheduled absences must get their assignments in advance and turn it in on time. Students have one week to make up projects, quizzes, and tests.
- **Academic Dishonesty:** If you are suspected of cheating on **any** assignment you will receive a zero on the assignment and a referral to the assistant principal. This includes copying work of others on homework, projects, or assessments.
- Finally… **YOU ARE EXPECTED TO STUDY ON YOUR OWN TIME!!!** If you expect to do well solely off of your in-class time, you are mistaken. This is an AP course, and as such it requires that you spend time outside of class studying!

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Course Outline

Unit	Approx. Time in Unit	Topics
1	1 Week	Review PreCalculus skills.
2	3 Weeks	Limits
3	4 Weeks	Derivatives (basic rules to inverse trig rules), L'Hopital's Rule
4	3 Weeks	Basics of Integration
5	2 Weeks	Mean Value Theorem and Related Rates
6	3 Weeks	Applications of Integration
7	2 Weeks	Fundamental Theorem of Calculus and Volumes
8	3 Weeks	Applications of the Derivative, PVA (position, velocity, acceleration), slope fields
9	4 Weeks	Free Response Question Tactics and Preparation
10	5 Weeks	AP Review and Practice (Calculator and Non-Calculator)
11	6 Weeks	Post AP College Calculus Prep and Final

NOTICE: By signing below, you have indicated that you have read the above information and acknowledge that these expectations are to be met in order for your student to be successful in this class.

Keep the first page of the syllabus and the outline above as a reference, but please sign and return this portion by the end of the first week of school.

_____	_____	_____
Print Student Name	Student Signature	Date
_____	_____	_____
Print Parent/Guardian Name	Parent/Guardian Signature	Date