

AP Calculus Syllabus

Teacher: Mr. Shafir  
Course: AP Calculus Syllabus

Room # W302  
Contact Information: EVHS: 818-753-4400

Course Description

The primary goal of the course, which is aligned with California Common Core Standards is to help students see and interpret the world through the lens of integral and differential calculus. To that end, a focus is placed on providing a strong conceptual foundation including the concepts of a limit, a derivative and an integral. With a strong foundation and extensive practice with applications and problems, students become prepared for the AP Calculus Exam and additional coursework in Calculus.

We begin the course with a review of many of the topics covered in Precalculus with particular attention placed on investigating functions using multiple representations. As the course progresses, students use multiple representations of functions as tools to obtain a clearer and deeper understanding of differential and integral calculus concepts and the subsequent theory and analysis that extend from those. Regularly, students are expected to communicate, both verbally and in written form, concepts and results using numerical, graphical and analytical information.

The TI-84 Calculator is used as a way to help students transition between representations and as a way to interpret results within various representations important calculus topics including limits, local linearity, accumulation, rate of change and the Mean Value Theorem. Students solve several calculus problem using graphing calculators including those where a solution to a differential equation is expressed as an accumulation function.

- Solid foundation: easy to follow examples help students master concepts one at a time; help notes on vocabulary, problem solving through examples related to students life and outside school experiences, homework practice, will support students as they learn.
- Abundant practice: numerous practice exercises and projects that target specific skills will reinforce concepts and build a solid foundation in algebra.
- Test preparation: weekly tests and quizzes will get students ready for questions written in multiple-choice format that are found on standardized tests, and concept problems will prepare students for LAUSD's periodical assessments.

Students Will Be Able To: explore and solve mathematical problems, think critically, work cooperatively with others, and communicate mathematical ideas clearly in both oral and written formats.

Materials

**Textbook:** Calculus A Complete Course (by Finney, Demana, Waits, Kennedy) - Pearson

**Supplemental Readings:** special assignments might require Internet explorations and books from school's library or local public library. I will check availability and notify students in a timely manner.

**Supplies:** Two sharpened pencils with erasers preferably 2 HB, and three ink pens: black, blue and red. Lead pencil, graphing paper, notebook.

Assignments

Homework will be given each day with very few exceptions. No homework after a Chapter Test day. Special projects that require a more elaborate work are part of daily homework.

Grading Policy

Tests:	40%
Quizzes:	25%
Classwork:	15%
Homework:	20%

Grade Breakdown

A = 90 – 100%
B = 80 – 89%
C = 70 – 79%
D = 60 – 69%

Quizzes are unannounced and may be given any day on current topics and/or basic skills practice. If students choose to talk/whisper during quizzes or tests, test papers of students involved in misconduct will be discarded. I will give each student an opportunity to write an essay to explain why they chose to talk.

#### Classroom Procedures

1. Our class starts with the ringing of the bell. When the bell rings I expect you to be seated, with backpack and/or purse off the desk, pencil and paper ready to write the agenda. You will have only 2 minutes to finish the agenda. Afterwards place homework on your desk to be checked and quietly start warm-up.
2. Agenda and Warm-up are part of your class-notes grade; I expect to see you working while I check homework. I won't answer warm-up questions at that time.
3. Homework check and corrections of most difficult problems follow after warm-up solving and its brief discussion. Homework will be solved only in pencil.
4. Afterwards we will have an introductory activity into main lesson. Attentive discussion and questioning are strongly encouraged.
5. Main lesson will start with teacher's lecture. You are expected to follow, be quiet and take notes during those minutes. Students will ask clarifying questions after my lecture or when asked to do so. Request for restroom pass is not acceptable during that time.
6. I will solve a few examples on the board. You are expected to follow and write them down one at a time. I will answer clarifying questions after each exercise.
7. You will start guided practice either individually or in groups. I will let you know which will be the case. I will give assistance during that time..
8. Class-work ends when I call class for attention. We will discuss what we have learned and write conclusions.
9. If we have time you may start your homework at the end of the period. Your time should be wisely spent.

#### Absences and Make-up Work

Absence clearance is your responsibility before you come to your class and so is the work you missed. Work missed will be due the following day the student returns to school. Class-notes are part of that work.

If you were absent for more than two days you should see me the day you return in the first five minutes after school to work-out a timely schedule for turning-in missed work. I wouldn't like you to lose precious grade points.

Make-up work should be placed in my hands at the beginning of class according to schedule. I won't accept late work after convened dates.

There will be no make-up points for unexcused absences or for missed projects. If a student is at school, he/she is expected to be in my class.

Tests and quizzes missed due to excused absences can be made up. A make-up session will be held in my classroom, day of the week to be announced. You have only one week in which to make up any missed quizzes or tests. After that time, a zero will be entered into the computer as your grade for that quiz or test.

#### Extra Credit

There will be tests which will have an extra credit problem. Solving such a problem correctly will result in supplementary points. Do not ask for extra credit work at the end of the grading period. You have daily opportunities to earn your grade. Work constantly towards a better mark.

#### Restroom Passes

We have a restroom log. You will be asked to sign-out and back-in. A restroom brake longer than 5 minutes will result in points lost from work-habits grade.

#### Extra Assistance

I am usually available for half an hour after school. I will also let you know which math teachers provide tutoring, when, where etc.

#### Class Code of Conduct

- 1) Enter class quietly, in a civilized manner.
- 2) No food, drinks or gum chewing are allowed. You will dispose of food wrappers, empty bottles and gum in the trash-can available outside the classroom before the bell rings.

- 3) Pencils are to be sharpened before beginning of class and never during quizzes/tests or teacher's lecture. Any other time ask for permission before leaving your seat.
- 4) When the bell rings you are expected to be in your seat, with backpack and/or purse off the desk, pencil and paper ready to start work.
- 5) Plagiarism of any kind is not accepted. For written assignments that require research, use quotation marks and mention the source.
- 6) Daily activities might require leaving your seat as directed; otherwise I expect to see you in your assigned seat.
- 7) Moving desks without my permission is not allowed.
- 8) Respect your fellow students and your teacher:
  - a. do not talk when someone else has the floor;
  - b. pick-up after yourself for a clean and safe learning environment;
  - c. follow common sense and good manners code. Use a reasonable tone of voice when speaking. Disruptions won't be tolerated.
- 9) Ask for permission with a quiet hand-up to courteously share your ideas with the class so we would be able to learn from each other.
- 10) Bring required materials to class every day.
- 11) Please attend to personal needs before you come to class. This includes restroom and/or locker visits, grooming, and drinks of water. Use your emergency passes wisely.
- 12) Dress code is in effect in this room at all times. Be properly dressed for a lower temperature.
- 13) Math class time is not available for leisure reading, music listening, homework completion or studying of other subjects. Should I find you working on material for another subject, I will collect it and dispose of it. Use of cell-phones, electronic game devices, music listening and of all electric and electronic devices not specified in classroom materials list is prohibited. School rules will be applied.
- 14) I expect good behavior from each student. I will not tolerate of insensitive, lewd or racial remarks. You are here to learn and grow to be a respected and responsible person.

Consequences

First time minor offenses to Class Code of Conduct are worth a Warning. That might be an individual brief reminder or a stern look.

Considering the rule you have broken, you will be required to Change your Seat or to complete a "Stop and Think about My Behavior" reflection.

If you are part of another academy, specific school detention rules will be applied; your parents and your Advisory Teacher will be notified of your conduct. You will also be required to complete a behavior reflection.

Your unsatisfactory work will lead to a Parent/Teacher Conference.

Dress Code Violation will be addressed by the Dean.

East Valley High School Code of Conduct will be addressed appropriately for discipline issues not mentioned in my Class Code of Conduct.

Have this copy in class with you at all times followed by assignments log and calendar of school events and important class dates.

*"Optimal learning is driven by curiosity which leads to exploration, discovery, practice, and mastery. Safety is created by predictability - predictability is created by consistent behavior."* (Bruce D. Perry MD, Ph.D)

-----Tear off with student and parent signatures -----

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Print Student Name

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Student Signature/Date

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Print Parent Name

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Parent Signature/Date