

# Calculus Syllabus

Teacher: Mrs. Schaub

Website: <https://sites.google.com/a/loyolacatholicschool.org/schaub>

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## COURSE DESCRIPTION:

Calculus is a full academic year of work in calculus and related topics comparable to courses in colleges and universities. It is expected that students who take an AP course in Calculus will seek college credit of placement by taking the AP exam. More information on the AP exam will come later in the year.

## AP or not AP:

Each student has the choice of whether or not he or she wants to take calculus as an AP (Advance Placement) class. If he or she does take it as an AP class, then there will be additional course work and he or she will be required to take the AP exam in May. Anyone taking the class with the AP designation will receive the weighted AP scoring in his or her GPA.

## COURSE GOALS:

1. To lead each student to an introduction of and an understanding of some of the concepts of Calculus; giving a firm foundation for the further study of mathematics.
2. Each student must willingly invest the time and effort needed to understand the material and do the assigned exercises for skill development. Mathematics is not a course one can learn by simply observing the teacher.
3. To respect the right of each person to listen, to practice, and to learn without distraction.
4. To instill personal responsibility for ones own conduct and performance.

## COURSE OBJECTIVES:

At the completion of this course, I will expect that the learner can:

- Understand the Calculus concepts of Limits, Differentiation, and Integration.
- Analyze graphs of functions to explain Calculus concepts.
- Use graphing technology as a tool to explore and gain further understanding in Calculus.
- Understand the nature of problem solving.
- Prepare for the AP Calculus exam given in May, as well as preparing for further study of mathematics.

## DAILY REQUIREMENTS:

Each student is expected to bring the following items to class every day:

1. Textbook: **Calculus, Graphical, Numerical, Algebraic**, Pearson Prentice Hall, 2007
2. Three-ring binder
3. Graphing Calculator
4. Laptop Computer
5. Pencil with eraser

### ATTENDANCE AND MAKE UP WORK:

Absent students are responsible for all work covered during their absence. Notes are posted on the class website. Students absent for 1 or 2 days have 1 day to make up the work. Students absent for more than 2 days have 2 days extra. If it is a **school absence**, like a field trip, music lesson, sports excuse, or suspension, hand in homework on time—**no extension** for missed day(s).

### TECHNOLOGY:

Each student is assigned a TI-89 graphing calculator. The calculator will be a learning tool and will be used on about half of the homework and test/quiz questions. Students will also use the laptop computer as a tool to explore Calculus concepts using the Geometer's Sketchpad software and other graphing tools. They will also use the following website: <http://loyolamath.pbworks.com> for the weekly assignment schedule and for vocabulary notes, reviews or other class materials.

### QUARTER GRADING:

Each quarter grade is a composite of Daily Homework Assignments, Quizzes, Tests, and Responsibility.

Daily Homework: 15% of the Quarter Grade.

- 2 points each.
- Homework will be assigned daily and discussed and handed in the following day.
- Various problems will be selected daily for students to demonstrate the solutions.
- NO credit is given for late or incomplete work (except excused absences).

Quizzes: 25% of the Quarter Grade.

- Usually given weekly.

Tests: 50% of the Quarter Grade.

- There is a test at the completion of each unit.

Responsibility: 10% of the Quarter Grade.

- This category deals with completing required work on time.
- Completing a review before the unit test and taking the test on time earn the points in this category.

### SEMESTER GRADING:

Semester grades are determined using the following formula:

$$1^{\text{st}} \text{ quarter grade} \times 50\% + 2^{\text{nd}} \text{ quarter grade} \times 50\%$$

### GRADE SCALE:

The grading scale is as follows: (AP grading)

Letter Grade	Percentage on Coursework	Percentage of Homework that must be handed in
A	92-100	100
A-	90-91	
B+	88-89	90
B	82-87	
B-	80-81	

C+	78-79	80
C	72-77	
C-	70-71	
D+	68-69	70
D	62-67	
D-	60-61	
F	0-59	---

EXTRA HELP:

In addition to two Guided Study periods each week, I am available for individual help at the following times: 7:30-8:00 a.m. and 2:45-3:30 p.m. Occasionally, I will have staff meetings during these times. I strongly encourage students to form study groups. It will be necessary for preparation of the AP Calculus Test.

NOTE TO PARENTS:

Thank you for taking an interest in your child's learning by reviewing this letter yourself and with your child. I look forward to sharing this year with your child and challenging him/her to excel. I am attaching an article titled "Finding the Glory in the Struggle: Helping our Students Thrive when Math Gets Tough." The key point of the article is that the best way to help is to offer no help, only encouragement and support. I can be reached by email: [sschaub@loyolacatholicschool.org](mailto:sschaub@loyolacatholicschool.org) or by phone: 388-2997 ext. 235. To ensure good communication, it would be very helpful if you would provide me with your email address.

Sincerely,

Mrs. Sue Schaub

Student signature \_\_\_\_\_

I have chosen to take this class as: (Circle one below)

AP Calculus                      or                      Calculus (not AP)

Parent/Guardian signature \_\_\_\_\_

Parent/Guardian email \_\_\_\_\_