

# Calculus and Applications

## Syllabus 2021-2022

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### Course Description

This course is intended for students who have a thorough knowledge of algebra, geometry, trigonometry and analytic geometry. Students successfully completing Trigonometry and Precalculus should take this course. This is designated as a college-level course in one variable calculus and will be treated as such. We will cover most of the AB Advanced Placement Calculus material and will be the foundation for BC Calculus and the BC Calculus Test next year.

### Materials

Notebook

Calculator - TI-Nspire CAS, TI-Nspire

Textbook

Your Device - Make sure it is charged each day

### Course Philosophy

In Calculus students are not only learning mathematics but are developing the logical reasoning, problem solving, and communication skills required in many fields that involve the sciences. This course is designed to challenge students' abilities. The limited class time is fully utilized for discussion, activities, labs, quizzes, review, and tests which makes attendance of the utmost importance. Outside of class homework is critical to students' understanding of the material. This is where students' problem solving skills will be tested and developed. Questions regarding content and homework are always accepted both in class and outside of class. Students are encouraged to come and seek help whenever a question arises.

### Collaboration and Technology

Within this class we are all working together to learn Calculus. Learning is not always an individual endeavor, it is helped by interactions and experiences with the material. Students will be working within groups in the classroom are encouraged to form study groups outside of the classroom. However academic integrity is still a priority. Students are expected to complete individual assignments for themselves, they may ask questions, but the work must be their own. Similarly there are a lot of great resources on-line for learning Calculus and students are encouraged to use them as an aid in their learning. However if these resources are used in such a ways that students are trying to pass off the work of others as their own, or are sharing or receiving help on assessments they are participating in Academic Misconduct and these situations will be handled in accordance with school policy.

### What You Can Expect From Me

1. A weekly quiz and a weekly problem set (Once you know enough stuff)
2. A test at the end of each chapter and a final AP style exam at the end of each semester.
3. I will do what I can to prepare you for the AP Calculus test.
4. I will be available for help during free periods.
5. I will be prepared for class each day.
6. I will do the best job I can to help you learn and understand Calculus and its importance in our world.

### What I Expect From You

1. Be ON TIME! EVERYDAY! You should be in your seat when the bell rings and remain until the end.
2. A truly honest effort at all times and you are studying math for the entire period.
3. If you are having problems make arrangement to get help.
4. You do your homework and work on mathematics each night. Plan on spending 20-30 minutes DAILY.
5. You are in class and prepared every day. We need 40 minutes of uninterrupted class each day. Take care of all other needs before or after class (DO NOT ASK FOR A PASS!).
6. Be courteous to everyone in class. Treat classmates, teachers, and their opinions with the utmost respect.
7. You will be asked to think in this class. You will be asked to explain the "whys" instead of just giving the correct answer. Problems will be difficult and you will be ask to persevere and work through them. This will make you uncomfortable and you will get over it.

## Grading

Semester 1	Semester 2	Grading Scale
<b>18 Week Grade</b>	<b>18 Week Grade</b>	100-90% A
50% Tests	45% Tests	89.99-80% B
40% Quizzes	35% Quizzes	79.99-70% C
10% Homework	12% Problem Sets (Lab)	69.99-60% D
<b>Semester Grade</b>	8% Homework	59.99 and below F
18-Week Grade 80%	<b>Semester Grade</b>	
Final Exam 20%	18-Week Grade 80%	
	Final Exam 20%	

## Other Policies

**Homework** – Students will be assigned homework for each section out of the textbook. Lists of assignments will be handed out at the beginning of each chapter. Homework will be collected on Canvas each week for the section completed during that week. Every problem must be attempted with work shown. Students must then take the assignment and check answers against the posted answer key making corrections and reworking incorrect problems in a different color pen. Most assignments are graded out of 6 points, 4 pts for attempting each problem and 2 pts for completing corrections. To receive full credit the week's homework must be submitted by the due date posted on Canvas. A limited amount of late-work will be accepted but only up until the final submission posted submission date. The total score on any late work will be reduced up to 50% of the points earned

**Cell Phone** –The school policy states that students are not allowed to have them out or turned on during class. They will be confiscated and given a vacation if found in the classroom when they are not supposed to be out. If confiscated more than once it will be submitted to the office.

**KEEP THEM PUT AWAY AND USE AIRPLANE MODE!!!**

**Cheating/Academic Misconduct** – Academic integrity is an expectation. In other words copying or using another person's work and claiming it as your own, this includes copying another person's work or an internet source and claiming it as your original work. Sharing or receiving questions or answers to assessments with other students is also strictly prohibited and not beneficial to either your grade or your understanding of the material. Be sure you are familiar with the school cheating policy (p 25) available in the student handbook on the website.

**Tardy** – **BE ON TIME** 1-3 offense is a warning, 4<sup>th</sup> and beyond are referrals to the office for detention and a call home.

**Assessments** – Assessments must be done in the classroom unless instructed otherwise. When an assignment is missing it is the student's responsibility to get in touch with the teacher to make arrangements to make it up. For an illness this must be done within 3 days of a return. If a student is absent for an unexcused or prearranged reason, they will be expected to make it up as soon as they return unless arrangements were previously made.

**Quizzes** – Quizzes and Problem Sets will be given once a week, mostly on Fridays. Any missing quizzes or problem sets that are not made up will be recorded as missing. At the end of the semester 25% of both the quizzes and the problem sets will be dropped. Missing quizzes and problem sets will count as the dropped and any missing quizzes or problem sets beyond the 25% will count as zeros.

**Absences** – It is your responsibility to stay up on you work. My Canvas page is full of resources and link to help you navigate the course through any absences. Make sure that you are openly communicating with me during the time you are gone. Get caught up while you are out, do not wait until you return.

**Calculus Sequence** – This class is a requirement for AP Calculus BC with a grade of B or better. Students concerned about placement should talk with Mr. Schmid.

Most of all, I am here to help you learn. If you are having difficulties or have any issues you would like to talk about please contact me or come to see me. I am here for you.

*"This classroom welcomes all, embraces each, supports everyone and hopes that you find yourself better for being here."*

### Mr. Schmid's Schedule

1 <sup>st</sup>	Calculus and Applications
2 <sup>nd</sup>	Pre-Calculus
3 <sup>rd</sup>	Prep
4/5 <sup>th</sup>	AP Calculus BC
6 <sup>th</sup>	Prep
7 <sup>th</sup>	Calculus and Applications
8 <sup>th</sup>	Prep
9 <sup>th</sup> /10 <sup>th</sup>	AP Calculus BC