

# AP Calculus AB Honors

## Morton High School



### AP Calculus AB at a Glance

AP Calculus AB is an introductory course equivalent to college-level Calculus I and part of Calculus II, following an Advanced Placement® (AP) outline that emphasizes limits, derivatives, definite and indefinite integrals, and their applications. Students have the option to take the AP Calculus exam at the year's end, potentially earning college credit based on their scores. The course prioritizes application over proof and utilizes a blended learning model, allowing students to manage coursework and seek help during designated class times akin to college office hours. This course aims to better prepare students for success in college calculus.

#### Topics Covered:

Limits, derivatives, integrals and their applications are covered. Technology such as the TI-Nspire and Desmos will be used to enhance student learning.

#### Instructional Resources:

[AP® Calculus AB and BC Course and Exam Description](#)

[Flipped Calculus](#)

### Available Resources

All blank notes, homework assignments, answers to homework, blank reviews and answers to reviews are available on Schoology.

### Absences

Students need to take the initiative to find out what was missed in class after an absence. All completed written notes and homework solutions are available online each day. Please see the Schoology page before asking questions. Emails are much appreciated if there is confusion about notes, assignments or the student's absences leading up to an assessment. **Students who are absent the day of a major assessment must make arrangements to take it on the next blended day or sooner.**

### Mathematical Practice Standards

All Morton High School Students will:

- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

### Grading Procedures

A Total points system is used to calculate grades. Grades are determined by dividing an individual student's accumulated point total by the total number of points possible.

Tests: .....	60-70%
Quizzes/Projects .....	30-40%
Homework .....	Approx 5%

**To accommodate the blended learning model, students will need to manage their learning outside of class.** A schedule will be provided with links to videos, practice sets, and solutions. More resources are provided than is reasonable to complete, so students will learn how to refine their study habits, with support, early in the year. Student reflection on their learning is expected.

**Optional Notes** may be submitted on a specific notes template to encourage students to synthesize the information they have learned from each section. These are not just notes copied in class or from instructional videos, but rather a one page summary of each section.

**Extra Credit** may be available at the teachers' discretion.. It will involve a project or selection of problems. As per department policy, the extra credit is worth 2% added to the semester grade percentage.

**Quizzes and Tests** are not able to be retaken.

## Academic Assistance

Students should expect mandatory days to be very full with scheduled activities. Blended days are like college “office hours,” are the scheduled to provided opportunities for students to come in for individualized academic assistance.

**Teachers are also available after school on most days. .**

Students should ask for assistance via email (*preferred*) or during class. Emailing helps to make sure that your teacher available and can give the appropriate assistance. We are always happy to work with students when they need assistance, **but students need to be proactive so that they can get help when they need it.**

## Classroom Norms for Technology

There are high expectations that students in AP Calculus will utilize technology in the classroom for the purpose of enhancing the learning environment. Some assignments will be calculator prohibited and some will be calculator required. Furthermore some activities will allow access to resources provided through Schoology, while others will not. The instructor will be clear in each case.

PHONES WILL BE SILENT AND PUT AWAY UNLESS GIVEN PERMISSION. Failure to follow these norms may result in referral and/or confiscation.

## Supplies Needed

- Notebook or Charged iPad for notes and/or homework
- Pencils
- TI-Nspire CX or CX II

## Helpful Websites

PowerSchool is an excellent way to stay on top of your grades, tardies, and absences:

<https://ps1.morton709.org/public/home.html>

Schoology is where students AND parents access content, assignments, announcements and resources:

<http://mcusd709.schoology.com>

## Class Expectations

a. Students are expected to be active participants in the learning process. This includes participating in class discussions, thinking about questions posed by the teacher and by classmates, construct viable mathematical arguments, and to help create an atmosphere that is conducive to learning.

b. Students are expected to be responsible students. Responsible students are ready to learn throughout class by having required materials, being respectful of others and self, and being focused on mathematics. Students are also expected to complete assigned tasks (homework, class work, and other assignments), and seek extra help from the classroom teacher, as needed. Furthermore, responsible students will correct mistakes on homework and quizzes and will do their best to learn for understanding.

c. Students are expected to show knowledge of all course objectives and apply that knowledge to real world situations. Furthermore, retention of material beyond the unit assessments in necessary. Students are expected to apply previously learned mathematics to new content to strengthen their mathematical understanding. Students will be expected to apply algebraic, numerical, and graphical reasoning to solve problems and explain their reasoning to others.

AP Calculus AB is taught with a blended learning model. Students will have notice regarding mandatory/blended days at least 2 weeks in advance. [Click here for more information.](#)

Thank you and I look forward to working with you to not just do math problems, but learn how to write about math, improve your logic skills and become a better math student.

-The Mathematics Department

