



AP Calculus AB
Mrs. Sailors
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This class will prepare students to take the AP test for Calculus AB. The AP test will allow students who do well on it to skip the first semester of calculus (Calculus I) in college and go directly into Calculus II. Four broad concepts which include limits, derivatives, definite integrals, and indefinite integrals will be studied in this course. This class will, in many ways, be treated as a college class, so be prepared to work hard! In order to be successful in this course, the following are the expectations for this course.

Suggested Materials:

1. Pencils
2. 3-ring binder or folder
3. LOTS of paper
4. **Graphing Calculator - A TI-83+ or TI-84+** (made by Texas Instruments) will be used in this course and may be used in any class through college math courses. Be careful about buying other models – many times you won't be able to use fancier models (such as a TI-92) on standardized tests (ACT & SAT included). If you are unable to buy a calculator, one may be checked out to you and you will be responsible for it just as your textbook. If lost, a fine of \$125 will be assessed at the end of the school year.

Grading:

It is important to realize that this is a college level course and will be assessed at college expectations. Students will be required to perform at an above average level when compared to a typical calculus class. Students may be disappointed with their grades if they fail to meet course expectations, but those who work hard and stay with the class will find this a rewarding experience. Grades will be figured using the following *weighted* system:

- **Summative = 70% OF TOTAL GRADE**
The following items are considered summative: Chapter Tests, Essential Objective Assessments and Projects. Before taking the summative assessments (Chapter Tests and EOs), the student must have all of their homework turned in and complete. If all of the homework is not completed, the student will need to complete that and then arrange to take the missed summative assessment at a later time outside of class time. This make-up assessment may be a different test over the same material and written at the same skill level. Essential Objective Assessments may be retaken once if a student is not pleased with their grade. The retake will be a different test over the same material. Retakes must be done outside of class. The grade received on the retake will be the new grade for that assignment.
- **Formative Quizzes = 10% OF TOTAL GRADE**
These quizzes are given approximately once or twice in a unit to check for understanding and for the student to reflect on what they are learning and may need to study.
- **Formative Homework = 10% OF TOTAL GRADE**
There will be homework assigned every day. In order to understand the material and to be able to take the summative assessments, the student will need to stay current on all homework assignments. In order to receive credit for the homework, the student must attempt each problem and show all of the required work. Homework will not be accepted if the work is not shown or is incomplete.

Homework tips:

- Write down the original problem, *then* begin solving it.
- Show every step! Don't just hand in answers.
- If a calculator is used, show the work involved in setting up the problem.
- Use the back of the book to **check** odd-numbered problems.
- **Try each assigned problem** – don't leave any problems blank

➤ ***Semester Final*** = 10% OF TOTAL GRADE

There will be a **cumulative** final exam at the end of the semester worth 10% of the final semester grade.

Attendance:

To be successful, good attendance is necessary! Being in class and on time is expected. Students should be in the room when the bell rings. Every 5th tardy will result in a dean referral as stated in the student handbook. If a student is absent, it is that student's responsibility to get notes and/or make up any activities that were missed. Daily assignments will be posted on my website <http://www1.bellevuepublicschools.org/curriculum/vsailors/>

Guided Study/Extra Help:

I am available every morning at 7:30am or earlier if prior arrangements are made with me. There is also guided study available after school from 3:30 pm – 7:30 pm in the Library. There is a math teacher present to help with questions.

**Students in AP courses have the opportunity to have their Guided Personal Study reassigned so they can work with other AP students and teachers. If you would like this assignment, please talk to me as soon as possible!*

Behavior:

- Be respectful of your fellow students and ALL faculty at B.E.H.S. and follow all school rules.
- Class participation is expected – use the entire class period constructively on the assigned work.
- Bring your supplies every day.
- No passes unless it is an emergency. Have your student planner for passes!
- Cheating results in a grade of zero.

Calculus Essential Objectives

1. The student will evaluate limits of functions. (Ch 2)
2. The student will solve related rate problems. (Ch 3)
3. The student will find derivatives of algebraic, trigonometric, exponential and logarithmic functions. (Ch 3&4)
4. The student will use the First and Second Derivative Tests to identify local extrema. (Ch 5)
5. The student will solve applied optimization problems. (Ch 5)
6. The student will evaluate integrals. (Ch 6)
7. The student will solve, interpret, and analyze the motion of a particle using differentiation and integration techniques. (Ch 5&6)
8. The student will find areas between curves and find volumes by using disks and washer methods. (Ch 7)