

COURSE DESCRIPTION

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in the areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

AP Calculus AB will be utilizing standards-based learning and assessment (SBLA) which measures students' proficiency on a set of standards for the grade/content level. The Standards Based Learning and Assessment approach:

- Indicates what students know and are able to do
- Shows student progress toward meeting a standard
- Communicates expectations ahead of time
- Is based on complex tasks, as opposed to memorization
- Focuses on recent evidence of learning.

COURSE REPORTING STRANDS

Semester 1

Limits
Derivatives
Derivative Application

Semester 2

Integrals
Integral Application
AP Synthesis

DISTRICT RESOURCES

Textbook / E-Book: [Calculus: Graphical, Numerical, Algebraic](#)

Ross Finney-Franklin Demana-Bert Waits-Daniel Kennedy-David Bressoud - Pearson - 2016

[Preparing for the Calculus AP Exam: with Calculus: Graphical, Numerical, Algebraic](#)

Barton Brunsting-Diehl Hill-Tyler Wilson - Pearson Education, Inc. - 2017

My Math Lab Online Platform (login through Clever)

District Website: <https://www.u-46.org/Page/10325>

Chromebook: Charged Chromebooks are to be brought to class on a daily basis. If a student does not bring his or her Chromebook, the student is expected to continue participating in class and complete all class work.

SPECIFIC COURSE ACTIVITIES

In order to demonstrate proficiency in course standards, students will need to:

1. Participate in class activities (take notes, contribute to group work, complete in-class tasks, ask questions, etc.)
2. Complete assigned homework as needed in order to practice and improve learning.
3. Use formative assessments to track learning progress and identify strengths and weaknesses with the course content and complete outside practice in activities when necessary.
4. Complete all assessments (formative and summative).
5. Create and follow through on a plan of improvement, when demonstrating little to no understanding of learning targets.

STUDENT EVIDENCE/ASSESSMENTS

Assessments based on SBLA demonstrate that students have the knowledge and skills necessary for success in the next grade, next course, and finally for college and career. Scores do not compare one student to another. They measure how students are doing on the grade/course level standards.

Evidence of learning (summative) and evidence for learning (formative) include any artifact that indicates whether or not a student has achieved proficiency in a standard. This can occur through in-class work, formative events, mid-unit, end of the unit, and end of course assessments.

PROFICIENCY SCALE

Standards-based rubrics will be used to determine students' level of proficiency, using the 0-4 scale based on set criteria.

Rubrics will be distributed at the beginning of a unit of study and referred to throughout the learning progression for the purpose of providing feedback. Rubrics for the course can be found on the [math website](#).

Score	What does it mean?
4 = Mastery	Demonstrates the ability to apply extended thinking about the skills and knowledge of the standard
3 = Proficient	Demonstrates skills and knowledge of the standard
2 = Basic	Demonstrates a basic understanding of the skills and knowledge of the standard
1 = Below Basic	Demonstrates a below basic understanding of the standard; may demonstrate gaps in skills and knowledge
0 = No Evidence	There is no, or insufficient, evidence of learning to assess the standard at this time
NE = Not Evaluated	This standard has not been evaluated at this time

MAKEUP POLICY

Summative assessments that are missed will be marked "missing" or "not evaluated" in the grade book until completed. Students have five school attendance days to complete a missed assessment. Incomplete assessments result in a lack of evidence of student's understanding and may cause a student to fail.

REASSESSMENTS

Students will have multiple assessment opportunities to demonstrate higher levels of achievement on any assessment that is used to determine an overall proficiency and grade. The opportunities may be initiated by the instructor or the student, but always at the discretion of the teacher. Reassessments must be completed within a reasonable time of the original assessment being returned to the student.

After a reassessment, the most current grade will show in Infinite Campus. For example, if a student starts with a 2 and then earns a 1 on a reassessment, the 1 will be the score reflected within Infinite Campus and in grade determination. If the student instead earns a 3, the 3 will be the score reflected.

LATE WORK

Any late work that a student may have must be turned in within the reassessment window. Once the reassessment window is closed, the assessment will no longer be accepted.

EXTRA CREDIT AND BONUS POINTS

To ensure that grades reflect progress toward and achievement of the standards, giving extra credit points or bonus points will not occur in this class. The vision of U-46 is that behavior/participation will be reported separately from academic achievement and is not a component of a student's academic grade.

GRADE DETERMINATION

Infinite Campus is used to communicate students' proficiency in each assessment, overall reporting strand, and the *predicted* semester letter grade. The semester letter grade will be informed by the student's learning proficiencies throughout the semester. Mastery of standards leads to mastery of the reporting strands, which in turn leads to mastery of the course.

- Standards-based rubrics will be used to determine students' level of proficiency, using the 0-4 scale, on individual standards and assessments.
- A *predicted in-progress* letter grade for each reporting strand will be calculated within Infinite Campus by averaging each of the proficiency scores in the strand.
- A *predicted semester* letter grade for the course will be calculated within Infinite Campus by averaging each of the reporting strands.
- The equal incremental grading scale to determine a letter grade is below.

Equal Incremental Grading	
A	3.21 – 4.00
B	2.41 – 3.20
C	1.61 – 2.40
D	0.81 – 1.60
E	0.80 - Below

ACADEMIC DISHONESTY/PLAGIARISM POLICY

Academic dishonesty refers to cheating, copying, plagiarizing, or otherwise representing the work of others as one's own through verbal, written, graphic, electronic, or other means. Students determined to have been academically dishonest are subject to disciplinary action. Consequences will depend on the severity of the offense, the number of offenses, the impact on other students and teacher, and/or the curriculum. Academic dishonesty undermines the learning process and will not be condoned.

COURSE DESCRIPTION

AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

AP Calculus BC will be utilizing standards-based learning and assessment (SBLA) which measures students' proficiency on a set of standards for the grade/content level. The Standards Based Learning and Assessment approach:

- Indicates what students know and are able to do
- Shows student progress toward meeting a standard
- Communicates expectations ahead of time
- Is based on complex tasks, as opposed to memorization
- Focuses on recent evidence of learning.

COURSE REPORTING STRANDS

Semester 1

Limits
Derivatives
Derivative Application
Integrals

Semester 2

Integral Application
Series
Polar, Parametric, & Vectors
AP Synthesis

DISTRICT RESOURCES

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2. Complete assigned homework as needed in order to practice and improve learning.
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4. Complete all assessments (formative and summative).
5. Create and follow through on a plan of improvement, when demonstrating little to no understanding of learning targets.

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