

# Northampton Area High School Course Syllabus

AP Calculus BC  
Course Code: M312AP  
Board Approval Date: August 27, 2018

## CONTACT INFORMATION

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[www.schoology.com](http://www.schoology.com)

### Time Available for Help

I am available to help students at the following times and locations:

- a. From approximately 6:45 A.M. until 7:15 A.M. in my room.
- b. During K-block
- c. At other times by appointment.

### Course Description

AP<sup>®</sup> Calculus BC is an extension of AP<sup>®</sup> Calculus AB. It is intended for those students who after completing AP<sup>®</sup> Calculus AB course want to re-enforce their knowledge of topics covered and extend their knowledge into more Calculus topics. There are essentially three parts of the course: topics from AP<sup>®</sup> Calculus AB; new topics in AP<sup>®</sup> Calculus BC; and topics from a traditional second semester college Calculus class. The general topics covered include, but are not limited to, limits, derivatives, integrals, and polynomial approximations and series. The students should have a graphing calculator for the course, preferably a TI-89.

### Keystone/Common Core Standards to be addressed

Many of the Common Core Standards are covered inherently through the topic of Calculus. Due to the vast amount of material, a link showing the correlation of AP Calculus topics and Common Core Standards is provided through a College Board report at the following web address:  
<http://media.collegeboard.com/digitalServices/pdf/research/RR2011-8.pdf>. Please pay special attention to Appendix B

### Objectives and Goals

The goal of this course is to provide enough instruction and experience in the topics of Calculus 2 to allow students to be successful on either the AP Calculus BC exam or a college Calculus 2 class.

### Determination of Grades

Course grades will be determined by classwork assignments, homework assignments, class participation, quizzes, and tests. Scores will be adjusted based on the AP scoring guidelines.

### Final Exam Policy

Only juniors or seniors with a final average of at least a 90% will be exempt from the Final Exam.

## Summer Assignment

Since you enrolled in an AP course, you are required to complete the summer assignment and turn in all work on the first day of school.

## Practice Exam

All members of the class will be required to participate in an AP practice exam in preparation or the actual AP exam. This generally occurs about 4-6 weeks before the actual exam, which is usually during the second week of May. Your score on the practice exam will be a considerable part of your 4<sup>th</sup> marking period grade.

## Classroom Rules and Discipline

Rules of the classroom will be governed by the Student Handbook and District policies. In addition, the basic ideals of respect for all in the classroom, appropriate etiquette, and preparedness for class are expected. The consequences for not following these general procedures include, but are not limited to verbal reprimands, detentions, contact with parents/guardians, and/or referrals to a counselor or administrator.

## Topics to be Covered and Timeline for the Course

The course follows the following text:

Larson, Ron, Robert P. Hostetler, and Bruce H. Edwards. *Calculus of a Single Variable*. 8<sup>th</sup> ed. Boston: Houghton Mifflin, 2006. Also, resources from the Master Math Mentor website will be used.

### Timeline:

# of Days	Unit #	Topic
13	1	Limits and their properties and continuity
15	2	Derivatives
20	3	Applications of Differentiation and the MVT
10	4	Differentiation and Modeling
20	5	Integrals and Applications
20	6	Logarithms and Exponentials
14	7	Area and Volume
30	8	Sequences and Series
15	9	Parametric and Polar Functions
7	Review	Review for the AP Exam

### Timing of Assignments

- Assessments (tests and quizzes) will occur every few days.
- AP style open-ended questions will be weekly.
- Classwork/Homework.

**Everyone must sign off on Schoology. By signing, you agree to the guidelines stated above.**