**COURSE OUTCOME:**

* **Course Description**

Through the investigation of meaningful problems individually or in cooperative groups, while using appropriate technology, students will meet the following learning expectations:

* + AP Calculus AB-BC is designed to be the college equivalent of one (AB) or two (AB-BC) semesters of introductory calculus. There are four components of AP Calculus called “**big ideas**” that correspond to foundational concepts of calculus.
    1. Limits
    2. Derivatives
    3. Integrals and the Fundamental Theorem of Calculus
    4. Series (BC only)
  + Technology is used to help solve problems, experiment, interpret results, and support conclusions.
* **Prerequisites**
  + Algebra I, Geometry, Algebra II, Precalculus, (and Calculus AB with a grade of *C* or better along with the Calculus AB teacher recommendation).
* **Mathematical Practices for AP Calculus (MPAC’s)**
  + [MPAC's](https://apcentral.collegeboard.org/courses/resources/mathematical-practices-ap-calculus-mpacs)

**INSTRUCTION:**

* **General Pacing**
  + AB: 1 semester (Fall)
  + BC: 2 semesters (Fall & Spring)

**RESOURCES:**

* **Materials Needed**
  + Pencils (and Pens)
  + 2*"* three ring binder
  + Loose-leaf notebook paper
  + Graph paper (optional)
  + TI-84 (or TI-89) Graphing Calculator
  + AP Calculus AB or BC Exam study book\* (recommended)
  + Internet
* **Fees**
  + **All AP or honors math courses have a $20.00 fee**
  + Technology fee ($15) and School-wide fee ($15.00)
    - Pay to your 1st block teacher or online https://osp.osmsinc.com/KnoxTN
* **\*AP Resources**
  + Course Description, CALCULUS AB, CALCULUS BC, The College Board
  + RELEASED EXAMS (1998 & 2003) AP Calculus AB and BC, The College Board
  + PREPARING FOR THE CALCULUS AP EXAM, by Ray Barton, John Brunsting, John Diehl, Greg Hill, Karyl Tyler and Steven Wilson, Pearson Addison-Wesley Publishing, 2006
  + PREPARING FOR THE AP CALCULUS AB AND CALCULUS BC EXAMINATIONS, Sharon Cade, Rhea Caldwell and Jeff Lucia, McDougal Littell Publishing, 2006
  + 5 STEPS TO A 5, AP CALCULUS AB - BC, William Ma, McGraw Hill Publishing, 2nd Edition
  + FAST TRACK TO A 5, PREPARING FOR THE AP CALCULUS AB AND CALCULUS BC EXAMINATIONS, Sharon Cade, Rhea Caldwell and Jeff Lucia
  + The North Carolina Association of Advanced Placement Teachers website: http://www.ncaapmt.org/calculus/

**ASSESSMENT:**

* **Grading Policy**
  + Grades will be determined by accumulation of points.
  + Grade Scale:

A 93-100

B 95-92

C 75-84

D 70-74

F below 70

* + Tests and quizzes – 50% of total grade
  + Homework , Class Assignments, and Projects – 30% of total grade
  + Final Exam in December for AB – cumulative exam which will count 15% of final grade
  + AP Calculus AB or BC Exam ($94) – Tuesday, May 14, 2019 (morning)
    - Section I, Part A (no calculator allowed), 30 multiple-choice questions, 60 minutes
    - Section I, Part B (graphing calculator permitted), 15 multiple-choice questions, 45 minutes
    - Section II, Part A (graphing calculator permitted), 2 free-response questions, 30 minutes
    - Section II, Part B (no calculator permitted), 4 free-response questions, 60 minutes
    - Even though calculators are required for Section I, Part B and Section II, calculators will not be needed for every problem. For further information, visit the College Board website at <http://www.collegeboard.com>. [AB Exam Info](https://apstudent.collegeboard.org/apcourse/ap-calculus-ab/about-the-exam) [BC Exam Info](https://apstudent.collegeboard.org/apcourse/ap-calculus-bc/about-the-exam)
  + The 5 points AP incentive will be added only if the student takes the AP exam.
* **Explanation of Assignments & Projects** 
  + Grades are figured based on the total points possible.
  + Grades will include, but not limited to, the following: tests, quizzes, in-class activities, homework assignments, projects and classroom participation.
  + In preparation for the AP Calculus BC exam, the quizzes and exams consist of calculator and noncalculator portions involving multiple choice and free-response questions from past AP exams or practice AP exams.
  + Assignments may be graded on completion and/or correctness of chosen problems as well as mathematical skill and effective math communication.
* **Make-Up Work Policy/Late Work Policy**
  + Make-up Work Procedure (Gibbs High School policy): The student must request make-up assignments within three (3) days after returning. Teachers shall set a reasonable time for the completion of the work. Failure of a student to initiate a request for make-up work within three (3) days will result in lost opportunity for credit for that assignment. Make-up quizzes and tests are rarely done during the class period. Plan to schedule a make-up session either before school or after school or during enrichment. Late work is NOT accepted.
* **Portal Post Policy** 
  + Student grades will be posted to the Family Portal at least once per week (if applicable).

**GENERAL EXPECTATIONS:**

* **Students:**
* **Attendance Policy**
  + Due to the nature of the course, attendance is of utmost importance.
* **Classroom Policy/Procedures**
  + I expect each student to take responsibility for their own learning. I am available before/after school and during enrichment. In addition to the school and district policies in the Student Handbook, the following classroom policies are in effect:
    - * bring all materials to class
      * take meaningful notes during class
      * use class time wisely
      * maintain an attitude and atmosphere conducive to learning
      * clean up your area before leaving
* Cell Phone Policy: See it. Hear it. Take it.
  + **Plagiarism**
    - According to Harbrace Handbook, 15th edition
      * “Plagiarism is defined as presenting someone else’s ideas, research, or opinion as your own without proper documentation, even if it has been rephrased. It includes, but is not limited to the following:
        + Copying verbatim all or part of another’s written work;

Using phrases, figures, or illustrations without citing the source;

Paraphrasing ideas, conclusions, or research without citing the source;

Using all or part of a literary plot, poem, or film without attributing the work to its creator.”

* + - * Consequences of Plagiarism
        + Plagiarism is a form of stealing and academic fraud.  Students who are found guilty of plagiarism will have the option of either redoing the assignment within a specified time period and accepting a grade letter drop or taking a zero on the assignment.  Parents should be involved in making the decision.
* **Honor Code**
  + Integrity, once lost, cannot be easily regained. The work you submit for credit must be your own. Students who copy someone else’s work or allow someone else to copy their own work will be given zero credit for that assignment and a disciplinary note will be filed. When in a group situation, collaboration is encouraged, however, each student is expected to make a genuine contribution.
  + **End of Class**
* All calculators and materials will be returned to their appropriate places before class is dismissed.
* The teacher will dismiss the class NOT the bell. Students should remain in their seats until dismissed.

**TEACHER:**

* **Communication Strategy:**
* Students are encouraged to communicate any problems they may be having with class content, projects, etc. to the teacher.
* Students are encouraged to check their grades on the portal frequently to maintain an understanding of what their grade is.
* Parents are encouraged to email or call the teacher with any questions or concerns.
* My Planning Time
  + - 2:11-3:30
* Email Address
  + - carol.mitchell[@knoxschools.org](mailto:adam.howard@knoxschools.org)
* School Phone Number
  + - (865) 689-9130 ext. 72548
* **Intervention Strategy:**
  + Tutoring is available upon request.