COURSE REQUIREMENTS
CALCULUS I
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Welcome to Calculus I. This is a course that is both a culmination and a stepping-stone in the mathematics sequence here at C.B. South. Mastery of the topics outlined in the course of study is essential if the student wishes to excel at subsequent courses such as Calculus II or college Calculus. Hopefully you will find the class interesting and challenging.

CLASS PROCEDURES

1. The student is expected to be in class every day and to be on time.

2. If you are absent from class for any reason, you are responsible for all work missed (homework, test, quizzes, core assessments). Any work that is not made up is a zero. Check the website for class notes and handouts.

3. Only one student may go to the bathroom at a time. Please **ask** at a discrete time and sign out on the counter with the correct time of departure and time of return. Failure to sign out/in correctly will result in the students' privileges being revoked.

4. Required materials for class include the textbook (Anton), notebook (3-ring is recommended), pen or pencil, and calculator. A graphing calculator (TI-84 family) is recommended. Bring all of these materials to class every day.

5. Notebooks are not graded, but taking notes is invaluable in this course. Notes given in class emphasize topics that you need to know well. Also, there are some topics that will be treated differently than those in the textbook. These notes may also serve you well in college.

6. Homework is assigned almost daily and checked occasionally. For full credit on homework, you *must show all necessary, non-trivial work*. Every student starts a marking period with 85 points out of 100 toward homework. For each homework missed, 4 points are deducted. Points can be regained by volunteering to put problems on the board as outlined during the first week of class. The pace of the course dictates that you put in a daily effort that includes homework completion and studying.

GRADING

1. Tests will be announced approximately 2 to 5 days prior to the day of the test. Quizzes may or may not be announced (for the most part, they will be announced). You can expect at least one test per chapter. Tests may consist of calculator and non-calculator sections.

2. Marking period grades are determined as follows:

    Tests/Quizzes/Other: 90%   Homework/Classwork: 10%

3. Final grades are calculated as follows:

    Marking Periods 1 and 2:   40% each (80% total)
    Core Assessments (2):   3% each (6% total)
    Final Exam: 14%

4. The grading scale is the standard Central Bucks ten-point scale.

5. Feel free to contact me via e-mail if you have any questions or would like to schedule time for extra help. This has worked well in the past particularly if students have been absent and want to get missed assignments.

OUTLINE OF TOPICS

1. Chapters 1 and 2: Functions and Limits (solving inequalities, review of functions and their operations, limits, continuity)

2. Chapters 3 and 4: Differentiation and Applications (tangent lines, the derivative, techniques of differentiation, chain rule, implicit differentiation, related rates, intervals of increase/decrease, concavity, relative extrema, graphing techniques, maximum/minimum values of a function, applied max/min problems, rectilinear motion)

3. Chapters 5 and 6: Integration and Applications (antiderivatives, indefinite integrals, u-substitution, definite integrals, Riemann Sums, First Fundamental Theorem of Calculus, areas between curves, volumes by slicing/disks/washers/cylindrical shells, length of curve, surface area, application to rectilinear motion)

ACADEMIC INTEGRITY POLICY

Students are expected to meet academic challenges with the highest degree of integrity and honesty. When questions arise about research or learning activities, students should demonstrate the discipline necessary to seek guidance from their teacher, rather than resorting to inappropriate behaviors that may undermine their own academic integrity and the learning process.

All students should read and understand the **CBS Academic Integrity Policy**, and ask questions or seek clarification if they are unsure of how that policy relates to academic work in general or to specific assignments for this course. Consequences will result when this policy is violated.