





dean.goldgar@henry.k12.ga.us Office Hours: Odd Days 3:35 – 4:15; Room 216

Course Description: Calculus is the study of the mathematics of change and the infinitely large and the infinitely small; it is a tool which allows one to break up large problems into small, easy to handle, parts. We will be studying some of the theory behind engineering, physics, and a little bit of economics and business. We will study differential and integral calculus, limits, and selected applications of calculus, differential equations and slope fields, parametric and polar functions; sequences and series including power series and Taylor Series, more differential equations, more integration techniques and an introduction to vector calculus. Students who are successful on the AP Exam in May receive varying amounts of college credit (depending on the school). This course incorporates the theory behind calculus needed for the AP Exam and college, the rigorous algorithms and procedures needed in many college courses, and the use of technology. All students enrolled in the course are expected to take the AP exam in May.

Course Objectives: At the end of the course students will be qualified to pass the Advanced Placement Exam and be prepared to take Calculus III. They should have a thorough understanding of the theory underlying differential and integral calculus of a single variable. The student will be able to show an increase in organizational skills and study habits. The student should make connections between the course concepts and real world applications; communicate successfully by using terms and symbols accurately; learn actively by taking notes and participating in class assignments and activities; and think critically about mathematics and personal situations.

Texts: The text is Calculus of a Single Variable 10e Cengage Learning.

Requirements: There will be a major test upon completion of each chapter/unit of material; several quizzes per unit (some of which will be unannounced); homework will be assigned virtually every class meeting; individual and group projects

Policies: *Make-up work:* If you have an excused absence from a class, you are responsible for obtaining the notes and making up the assignments. Please check <u>http://tinyurl.com/goldgar</u> to find assignments and handouts missed. Assessments must be made up within the same number of days as the student missed (the sooner the better). *Long term projects are due when assigned unless prior arrangements have been made or student is hospitalized; 10 points per day late will be subtracted.* Any assessments missed due to unexcused absences will receive a grade of zero, as will any assessment the student cheated on.

Extra Help: I will be available for extra help almost every odd day by appointment. Never let a question go unanswered. You may call me at home to get help in between class meetings so as not to get behind.

Materials: A graphing calculator is needed for this course. I recommend a TI 83 or a TI 84. TI 89s are not recommended for the course, TI 92s are not allowed on the AP tests, and the TI nSpire isoften hard for students to use. Other brands are available, but I will be using TIs for my demonstrations.

Other materials include: notebook, paper, graph paper, pencils, ruler, dry erase marker.

Homework: Homework is an important part of the learning process. To aid in its successful completion, it is recommended that a routine be established as quickly as possible at home. Studying should take place at an appropriate time in a quiet, will lit, comfortable area. Music, TV and telephones should not be a part of this environment. With the block schedule it is imperative that the student work on the math assignment every night. This will aid in the retention of the information and skills.

Expectations:

- 1. Be in class and be on time, prepared with homework, materials and book.
- 2. Be involved with class discussions and activities.
- 3. Do homework <u>nightly</u> and be prepared to discuss solutions or ask questions.

4. <u>All work must be your own original work</u>. Academic honesty is something that is to be taken very seriously. Students are strongly encouraged to ask questions of one another and share ideas. However, students presenting another's work for their own will receive disciplinary consequences consistent with RCPS policy. This policy applies to ALL pieces of student work, from quizzes and tests to homework. It is my hope that every student will take pride in his or her individual efforts.

- 5. Keep a notebook which will include class work, notes, homework, tests, and quizzes.
- 6. No food or drinks in the classroom, please.
- 7. No cell phones, stereos, beepers, game devices, or similar electronics are allowed except for educational purposes. If an electronic device is used for non-allowed purposes the device will be collected until a parent picks it up.
- 8. Keep a positive attitude and give 100% effort in class at all times.
- 9. All parents are expected to keep up with their child's grades on Infinite Campus.

ATTENTION:

The teacher reserves the right to change or modify any section of the course syllabus at any time during the semester to more adequately meet the needs, abilities, and the interests of the students.

PARENTS PLEASE READ: If you would like text alerts for my math class please sign up by sending a text to 81010. The message should be @mrgoldgar after sending the text, you should receive a text back asking your name. Please list your name as "your child's name" mom or dad. If your child is Matt Smith, your name will be Matt Smith mom or Matt Smith dad. If you would prefer emails send an email to mrgoldgar@mail.remind.com. Leave the subject line blank. These alerts will tell you when tests are, when projects are due or any other classroom information.