

Calculus Syllabus

Instructor: Mrs. Snearly

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Mrs. Snearly's Sweet as Pi Website: www.sweetaspi.weebly.com

3rd Period 9:49 am to 10:37 am

Cerro Gordo High School

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Classroom Policies:

- Everybody in the class will respect each other at all times.
- Everybody is able to learn. Remain positive!
- We have much work to do this year – attend and be prepared for each class.
- Working in groups is encouraged on most assignments. Please use the honor system and show your own work. Forming study groups is encouraged!
 - Warning: Relying too heavily on your study partners can give you a false sense of security when it comes to quizzes and tests. Make certain you are working through the problems on your own, and using your study group only when you get stuck, or to check the work you've completed. If you don't understand a problem even after consulting with your study partners, make certain you see me ASAP. If you wait until a quiz or test day to ask your questions, it will be too late.

Bring daily: Textbook, assignments, note paper, writing utensils (pencil preferred), graphing calculator (TI-84 recommended) and provided white board. I will use, almost daily, 3-hole punched hand-outs for examples and notes. It would be beneficial for you to have a 3-ring binder exclusively for this class.

Write on the top of each homework assignment: Your Name, the course title (Calculus) and the page number(s) and problem numbers assigned. If you pull an assignment out of a spiral notebook, take the rough edge off before you turn it in.

Quarter Grades will be determined by the following:

Homework: 20%

Quizzes and Tests: 80%

Grades are weighted, so to figure a student's grade, all homework scores are added and then divided by the number of possible points in that category (times 100 to make it a percent), then all quiz and test scores are added and then divided by the number of possible points in that category (times 100 to make it a percent). Next, the homework percent is taken times 20% and the quiz/test percent is taken times 80%, and these two results are summed. This is the quarter grade percentage.

Homework Policy: You are expected to attempt every homework problem. Some problems may have multiple parts. Label the work/answer for each part accordingly. When I grade, each part represents some of the total points.

Homework may be scored in one of 3 ways:

Graded in class, and then the score will be scaled out of 10 points.

Collected and graded by me, and then the score will be scaled out of 10 points.

Homework Checks (HWC) may be given as well. These consist of me spot grading a few selected problems off of assignments. I will determine before I grade which ones will be scored, and then will score the exact problems on each student's homework set. These will also be scaled out of 10 points. When you hand in for a HWC, I will tell you which problems will be graded, and you will need to take your highlighter and circle the problems and all of the work that accompanies it so I can easily find the problems I am grading. For full points, all required steps must be shown. Odd problems that require steps but have only answers as recorded in the back of the book will receive little to no credit.

Quizzes and tests may look alike, however, the major difference between them is you are allowed to do corrections to quizzes according to the following guidelines in order to earn back some points as well as understanding.

Quiz Corrections must be completed on a separate sheet of paper and stapled to the front of the original quiz.

Each problem corrected must include complete and correct work and answer(s).

For each problem corrected, you must explain in words using correct mathematical reasoning and terminology the complete process of how you correctly solved it this time. If possible, you should identify also what type of error occurred the first time you worked the problem on the quiz. You may start the correction at the point where the mistake occurred without recopying the part that was previously correct to that point.

If the problem and work is correct and the written justification is complete and correct as well, you will earn back $\frac{1}{2}$ of the points you previously missed on the quiz problem. Points add up quickly, for example, on a quiz scored out of 35 points, each point earned back increases the percentage grade by almost 3%. Quiz corrections are the only bonus opportunity I allow. If you want me to look over your quiz corrections prior to handing them in, please see me outside of our structured class time before you turn them in. You may get assistance on quiz corrections from anyone you would like, including me.

Some quizzes may be given without the aid of a calculator, while others may require the use of a graphing calculator. All Assessments (Quizzes and Tests) are cumulative. They can contain any topics that we have previously covered. It is natural for this to occur, as the topics build upon one another as we go.

Tests should be corrected in order to gain understanding; however, points cannot be earned back on tests. I reserve the right to adjust this policy in the future if I deem it beneficial.

Student Outcomes for the Course:

- Students should be able to analyze the continuity of functions.
- Students should be able to find the limits of functions graphically and algebraically
- Students should be able to find derivatives of algebraic and transcendental functions, and use derivatives to solve applied problems.
- Students should be able to use first and second derivatives to analyze graphs of functions.
- Students should be able to find integrals of some algebraic and transcendental functions, and use integrals to solve applied problems.

- Students will learn how to interpret results obtained by calculating limits, derivatives and integrals. Students will analyze how their results relate to graphs and applied problems.
- Students will obtain a fundamental understanding of limits, which will allow them to explore differentiation and integration to solve problems involving optimization, related rates and areas.
- Students will perform mathematical operations while calculating and solving problems involving limits, derivatives and antiderivatives.
- Students will learn how to interpret tables and graphs while exploring the concepts of limits and derivatives. Furthermore, students will use differentiation in order to analyze the graph of a function.