

INSTRUCTOR: Logan Axon

EMAIL: axon@gonzaga.edu

OFFICE: 221 Herak

OFFICE HOURS: M 10-11, Tu 9-10, W 3-4, F 11-12 (in the Math Lab), and by appointment

TEXTBOOK: Essential Calculus 2nd ed. by Stewart

WEB SITE: <http://web02.gonzaga.edu/faculty/axon/259>

DESCRIPTION: Calculus III will extend the single-variable calculus developed in Math 157 and 258 to the multivariate case. We will study partial derivatives, multiple integrals, and the calculus of parametric curves, polar and cylindrical coordinates, and vectors. Applications will include the study of motion in space, centers of mass, and optimization. In addition to computational proficiency in the areas already listed, the successful student will be able to interpret (and visualize, in some cases) statements about multiple variables as functions, equations, surfaces, curves, etc. in spaces of 3 or more dimensions. The material is in chapters 9–12 of the textbook.

PREREQUISITE: MATH 258 or permission of the instructor.

GRADING: Grades will be based on scores on exams, homework sets, and worksheets/quizzes. There will be four exams during the semester, each worth 13% of the final grade. In addition, a final exam will count for 26%. The remaining 22% of the grade will come from scores on homework sets and worksheets/quizzes. All quizzes will be announced the class before they are given (no pop quizzes). In general there will be 1 or 2 quizzes/worksheets and one homework set each week. Late work will not be accepted without an excuse. No extra credit will be given. Final grades will be assigned using the following rough scale (with + or – at the top or bottom of most intervals):

Score	Grade
90-100	A
80-90	B
70-80	C
60-70	D
0-60	F

HOMEWORK: Graded homework will consist of WeBWorK problem sets (<http://webwork.gonzaga.edu/>). These assignments are graded automatically by the computer when you press the “Submit” button. You can (and should) retry each problem until you arrive at a correct solution. A list of additional suggested homework problems will be posted on the course web page. These problems will not be collected or graded. It is nearly impossible to learn calculus without lots of practice and you are strongly encouraged to solve all of the suggested problems. Please bring questions to office hours, class, smart friends, or the math lab.

ATTENDANCE AND MAKE-UP WORK: You are expected to attend all classes. All absences should be excused in advance or by a note from a responsible party. Work missed due to an excused absence may still be completed for a grade, however, you must arrange to complete the work as soon as possible. One make-up exam session will be held during the last week of class. New (more difficult) versions of the exams will be used for this session and you must complete *all* missed exams during this *one* session. Excessive unexcused absences may result in a grade of V.

CALCULATORS: Calculators (and all other electronic devices, including cell phones) will not be allowed on any exams or quizzes. You should practice solving the homework problems without a calculator whenever possible. Some homework problems (particularly on WeBWorK) may eventually require some calculation, but you should not need to use anything more advanced than a very basic calculator. Students who rely heavily on their calculators to solve homework problems often struggle on the exams.

MATH LAB: Help on the homework, or any other class material is available in the Math Lab in Herak 224. A schedule of tutors and their hours will be posted on the Math Lab door.

ADDITIONAL BUSINESS: Students with disabilities should work with the DREAM office (x4134) to make sure that all necessary accommodations are made. No special accommodations will be made outside of those arranged through the DREAM office. The policies and procedures outlined herein are subject to change. All changes will be announced in class.