

Course Syllabus
Calculus and Analytic Geometry III

Course Instructor:

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Office Hours/Problem Sessions: Problem sessions and office hours will be regularly available over the semester, both in person and via Zoom. Times will be posted at the course web site. Students are also welcome to e-mail with questions that might arise in their work, or to indicate topics that they would like to see discussed more fully in class.

Math Center: Math 2433 is one of the courses for which the OU Math Center provides tutoring assistance for students six days per week. The Math Center is located in Room 209 of the Physical Sciences Center. This semester its service will be available in person from Monday to Friday, and via zoom on Sundays. The actual hours of operation, and other information, can be found at

www.ou.edu/cas/mathcenter.

A good strategy for taking advantage of this valuable resource is to try working with a few different tutors to find one whose explanations resonate well with you. The Math Center provides a nice environment in which to work on classwork assignments and interact with classmates.

Text: The course textbook is *Calculus (8th Edition)* by James Stewart (Cengage, 2016). Most of chapters 10 through 13 will be covered this semester. The textbook is an essential resource for this class. Reading and studying it as the semester progresses is important for success in the class. The book is an excellent source of worked examples that will complement and enrich class discussions.

Course Web Site and Canvas: A course web site "www.math.ou.edu/~amiller/2433" will provide a central means for disseminating information and posting materials for the course. A course calendar will be maintained on Canvas, and WebWork assignments must be accessed from there.

Course Meeting Times: The class is scheduled to meet in person MWF 12:30-1:20 pm, in PHSC 222. The day-to-day class lectures and discussions form the backbone of this course. Routine attendance at class is essential, and expected of all students. Class attendance will be tracked but will not directly contribute to course grades.

Covid concerns: Because of the covid situation, it is possible that adjustments may need to be made in class procedures as the semester develops. If necessary, some alterations to this course information sheet may be required, but they will be clearly announced in class. Because of the close quarters in our classroom, students are strongly urged to wear masks.

Any students who are concerned that they may be exhibiting symptoms of the virus should carefully follow university guidelines for getting tested and notify the course instructor. Please refrain from attending class where others may be infected. We will try to make short-term adjustments in course procedures to ensure that students in this situation can keep pace with the course.

Brief Course Description: This course is the third course in the four semester calculus sequence. The topics provide a transition from the calculus of functions of a single variable that are studied in the first two semesters of the sequence, and the multivariable calculus which is the focus of the fourth semester course. The course description which appears in the OU General Catalog gives some details of the topics to be studied:

Math 2433 Calculus and Analytic Geometry III. *Prerequisite: 242. Polar coordinates, parametric equations, sequences, infinite series, vector analysis.*

Some of these topics will be extremely important for students intending to continue with the Math 2443 course. This course is also a precursor to a wide range of additional math offerings. Among them are: ODE's (Math 3113) and Physical Mathematics (Math 3413), which are direct continuations of the calculus sequence focusing on differential equations; and Discrete Mathematical Structures (Math 3513) and Linear Algebra (Math 3333), which move towards developing other somewhat more contemporary non-calculus viewpoints of mathematics.

Technology Requirements: There will be regular assignments using the computer software WebWork and at least one of the midterm exams will have a WebWork component. Also some problem sessions and office hours will take place on Zoom, and it is possible that some quizzes will be administered via Canvas. Because of this, each student is expected to have access to appropriate electronic devices, specifically:

- A computer, smartphone and/or tablet to connect to course technologies.
- A functioning web camera with audio, required for proctoring exams using WebWork.

Students without access to such equipment should consult with the course instructor in advance.

Course Grading: Course grades will be determined according to the breakdown:

<i>Classwork:</i>	<i>15%</i>
<i>WebWork Assignments:</i>	<i>15%</i>
<i>Four Midterms:</i>	<i>50%</i>
<i>Final Exam:</i>	<i>20%</i>

and final course grades will be based on the scale:

A: 90%, B: 80%, C: 70%, D: 60%, F: below 60%

Please note that assignments and classwork comprise a significant portion of the course grade.

Exams: There will be four midterms taking place on the dates indicated below. Students will not be allowed to use calculators, laptops or any electronic devices on the exams. Formats may vary from exam to exam but will be described in class at least one week in advance.

<i>Exam 1:</i>	<i>Friday, September 17</i>
<i>Exam 2:</i>	<i>Wednesday, October 13</i>
<i>Exam 3:</i>	<i>Wednesday, November 3</i>
<i>Exam 4:</i>	<i>Monday, November 22</i>
<i>Final Exam:</i>	<i>Thursday, December 16, 1:30–3:30 PM</i>

Make-up midterms will be only allowed for students that have a time conflict with a university-sanctioned extracurricular activity, or are quarantined under the university covid protocol. In these cases, alternate arrangements will need to be agreed to in advance of the exam.

Classwork: This portion of the grade will be determined by class quizzes and written homework. Each classwork assignment will be graded out of 20 points. In calculating this portion of the total semester grade, the lowest 25% (roughly) of grades will be dropped at the end of the semester. Classwork must be completed when scheduled and late work will not be accepted.

According to my estimates, each single point on a classwork assignment will contribute approximately .0018 points towards the total semester score in this class. So, while it is always appropriate to chase perfection, I hope this can convince you that the main point of the classwork is to assist in determining which concepts you need to work on more carefully to build up your over-all understanding of course topics (and to perform well on class exams). Please strive to be honest with yourself about approaching your course work.

WebWork: WebWork assignments will be given periodically over the semester, roughly one per week. These on-line assignments are to be accessed through the Math 2433-005 Canvas page, and due dates will be published on the Canvas course calendar. In calculating this portion of the total semester grade, the lowest 25% (roughly) of grades will be dropped at the end of the semester. Instructions and suggestions for using WebWork are posted at the course web site.

Suggestions: The main objective for the course is to acquaint you with fundamental concepts of calculus, to help you to understand these concepts deeply, and to see how they may be applied in a variety of different settings. Another very important goal is to assist you in building up and advancing your math skills. (This is a highly individualized process!) The best approach for success in the course is to focus on studying and learning about course concepts as they are discussed in class. Developing a genuine interest in the subject and a general inquisitiveness about its concepts can really help to motivate your work as you progress through the semester. Having questions and then getting them resolved is one of the best ways to advance an understanding of the subject. (On the other hand, having questions and not getting them resolved is one of the worst strategies for success.) Plan on using the weekly office hours, problem sessions and the Math Center as part of your process for moving your understanding forward. Discussing assignments and preparing for midterms with classmates can be a very effective approach to mastering course material. Students are highly encouraged to form study groups to discuss problems among themselves and prepare for exams outside of class. Questions and comments are always welcome in this class. The only "bad" questions are questions you might have that you don't ask about!

Student Disabilities: The University of Oklahoma is committed to providing reasonable accommodations for all students with disabilities. If you require special accommodation in the course please discuss this with me as soon as convenient so that we can take steps to ensure your full participation in the course and to facilitate your academic opportunities.

Academic Misconduct: Students should be familiar with the Academic Misconduct Code which may be found at www.ou.edu/studentcode. The rules governing cases of academic misconduct may be found at www.ou.edu/provost/integrity. Any violations of these rules will be duly reported.