

The University of Detroit Mercy
Syllabus and Course Outline

Course: Math 142: Calculus II and Analytic Geometry

Time and Place: 9-9:50 MTWTH

Credit Hrs: 4.0

Prerequisites: Math 141: Calculus I

Instructor: Lazaros D. Kikas

Office: E248

Office Hrs: 11-12 MTWTH

Telephone: 3-3379 Email: kikasld@udmercy.edu

Text: Anton, Bivens, and Davis, Calculus, 7th Edition

Course Content: We will cover in this course topics in analytic geometry, techniques of integration, sequences and series, applications of integration, and the integration of various types of functions and product of functions. The study of the social and biological sciences is becoming increasingly mathematical. Simple mathematical models for problems found in the natural and social sciences, engineering and business will be discussed and formulated.

Course Outcomes: After taking this course the student should be able to:

- ∞ Use various techniques to find integrals.
- ∞ Use the definite integral to solve various application problems.
- ∞ Determine the convergence or divergence of various infinite series.
- ∞ Solve basic differential equations and use them in basic applications.
- ∞ Appreciate and understand various mathematical models for problems in engineering, science and business.

Grade: Your grade will be determined by the following:

- ∞ 3 Exams 100 pts each
- ∞ Final Comprehensive Exam 200 pts
- ∞ Weekly quizzes 100 pts
- ∞ Total Points: 600 pts

Homework: Homework will be assigned on a regular basis but will not be collected. It is the students' responsibility to do the homework and keep up with the class.

Quizzes: At the end of every week (Thursday) we will have a short quiz that is based solely on definitions and ideas for the week. At the end of the semester I will add up your quiz total and assign you a grade out of 100 points. Each quiz will be 10 points and I will drop your four lowest test quizzes.

Last Chance Policy: A final exam score which is higher than the lowest test grade will replace the lowest test grade. A missed test will count as the lowest test grade.

Attendance policy: It is not my policy to take attendance. However, frequent absences, for whatever reason, usually results in the inability of the student to keep up with the class. Every effort should be made to be punctual and present for all class sessions. Students are personally responsible for any work missed. Make

up exams will be only given to students who have a documented excuse. Everyone must take the final exam.

Cell Phones: Please turn off cell phones when in class.

Calculator policy: You are allowed the use of scientific calculator for this course. However, calculators that perform symbolic computations are NOT ALLOWED.

Cell Phone Policy:

During lectures and exams your cell phones must be turned off and put away. You are not allowed to take or make a phone call during an exam.

Outline:

Topics to be covered:

1. Chapter 8: Principles of Integration
2. Chapter 7: Applications of the Definite Integral
3. Chapter 10: Infinite Series
4. Chapter 11: Analytic Geometry and Calculus

Important Dates

1. September 13 Last Day to add a class.
2. September 30: Last day to drop without a "W".
3. Nov 21: Last day to withdraw from class.
4. Nov 24-27: Thanksgiving Break.
5. Dec 12-17: Final Exam week.

Examinations: Exam dates will be announced one week in advance.

Final Exam: Date and Time will be announced.

Personal Note: Calculus is an exciting subject. It is used in engineering and in both the physical and social sciences. Have fun with the course. Do as much as you can and study hard. I will do my best to help you over the rough spots.