
Course Overview: One purpose of this course is to refine our skills in working with integrals. We will be learning new tricks for calculating indefinite integrals. This course also serves as an introduction to the theory of infinite sequences and series.

1. Understand the relationship between differential and integral calculus (Fundamental Theorem of Calculus).

2. Understand some of the applications of integration, including area, volume, arc length, etc. This includes the ability to set up definite integrals as solutions to common application problems.

3. Be able to calculate antiderivatives using techniques such as integration by parts and trigonometric substitutions.

4. Have some familiarity with first-order differential equations.

5. Have a basic understanding of curves defined by parametric or polar equations.

6. Be able to test infinite series for convergence, and to find the interval of convergence of a power series.

7. Be able to find the Taylor series of a function.

8. Write clear and complete mathematical solutions.

Politeness: You are expected to be polite to me and your classmates. This includes:

- coming to class on time,
- acting interested and engaged, and
- not using electronic devices and computers during class.
Midterm Exams: There will be three 50 minute in class exams during the semester. They will be given on

- **Wednesday, September 26**
- **Wednesday, October 24**
- **Wednesday, November 28**.

Exams will be closed book, but you will be allowed to notes from one 8.5” x 11” sheet of paper.

Final Exam: The final will be cumulative and closed book, but you will be allowed to notes from one 8.5” x 11” sheet of paper. It will be held on **Wednesday, December 12, from 6-8 pm**. By registering for this course, you agree to take the test at this time and date.

Homework: I will post homework announcements on Moodle. Working hard on the homework is how you will succeed in this class, so please, take the homework seriously. You are allowed to work together with your classmates on the homework assignments, but be sure that when you are finished that you understand the relevant concepts on your own.

Your homework grade will be split evenly between written and online homework.

1. **Written:** Each week there will be a written homework assignment from the text. These assignments must always be written neatly in your own words. Because your two lowest homework scores from the semester will be dropped, late homeworks will not be accepted. Homework will be graded for correctness, clarity, and completeness of justification. For a problem to receive full credit, you must
   - State the goal of the problem,
   - Explain each step as necessary,
   - Present the entire solution in a clean and clear format that is easy to follow.

Imagine that a fellow student will be reading your homework to study for an exam. If your work is not detailed enough to be useful, it is unlikely to earn much credit when graded.

2. **WebWork:** Each week there will also be an online homework assignment which will be administered through the “WebWork” system. Go to:

   [http://lennes.math.umt.edu/webwork2/m172s1-Chesebro/](http://lennes.math.umt.edu/webwork2/m172s1-Chesebro/).

   Your login name is your last name. Your password is currently the last six digits of your UM student ID number (you can and should change your password the first time you log in. Be sure to let me know if you have a problem with the website.)
Quizzes: Most weeks we will have a Friday quiz. Quizzes will be given at the beginning of class, so you need to be sure that you are on time.

Calculators: Electronic devices (eg. calculators) will NOT be permitted nor necessary for quizzes and exams. On the other hand, you should feel free to use them on your homeworks.

Khan Academy: Online lectures for filling in the gaps: http://www.khanacademy.org/.

Grading:

- Point Distribution. 15% Homework, 15% Quizzes, 45% Midterm Exams, 25% Final Exam.

  Your lowest Midterm Exam score will be weighted to be half the value of your other two scores.

- Grading Scale.

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Academic Honesty: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.

Student Conduct Code: All students need to be familiar with the Student Conduct Code. You can find it at http://life.umt.edu/vpsa/student_conduct.php.

Disability Support: This course is accessible to and usable by otherwise qualified students with disabilities. To request reasonable program modifications, please consult with the instructor. Disability Services for Students will assist the instructor and student in the accommodation process. For more information, visit the Disability Services website at http://life.umt.edu/dss.