

MATH 1372: CALCULUS II
Fall Semester 2014 Four credits – A/F grading
2 Lectures/week & 2 Discussions/week

Textbook: *Calculus, Early Transcendentals, Seventh Edition* by James Stewart

Website: <http://www.moodle.umn.edu> Course material will be available via Moodle, including lecture outlines, review material, useful links, and additional help. It will be updated weekly.

Exams: Each midterm exam is worth 15%, the Gateway exam is worth 5%, and the final exam is worth 30% of your total grade. There will be three 50-minute midterm exams outside of regular classtimes and a 3-hour final exam. The Gateway exam tests integration proficiency and will be discussed at greater length in class. The final exam will be a comprehensive exam over all the material covered in the course. All exams are closed book and notes. No graphing calculators will be allowed on exams, but scientific calculators are allowed. All sections take the same final exam.

Make-up Midterm Exams: Make-up midterm exams will be given to students with legitimate excuses such as verified illness, University sponsored events, etc. Written documentation is required and arrangements must be made *in advance*.

Homework & Quizzes: Homework is worth 20% of your total grade and is divided into two equally weighted categories: written and online. The written component includes written homework and a quiz to be given each week during Thursday's recitation session. No make-up quizzes will be given, but your lowest score will be dropped. Written homework problems are posted in Moodle. The other portion of your homework grade will be based on completion of the web component, due Tuesdays at 11:59 pm. Answers to the online homework will be available the next day.

To log on to the web based homework, go to:

<http://roy.math.umn.edu/webwork2/math-1372-f14>

Your login is your x500 UMN email ID and your initial password is your student ID. For example, if your email address is jdoe999@umn.edu, then:

Login: jdoe999

ID: 1234567

Capitalizations matter, so if your UMN email ID is all lowercase, so is your login. Remember, the web based homework must be completed by Tuesday at 11:59 pm.

Calculators/Cell Phones: GRAPHING CALCULATORS ARE NOT ALLOWED on exams and are strictly prohibited by the Math department on midterms and the final exam! The exams are written such that a scientific calculator will be more than sufficient-the TI-30X IIS 2 Line Scientific Calculator will work quite well. That said, graphing calculators can be a valuable learning aid for homework and studying. As a courtesy to me and your fellow students, please turn your cell phone off before class starts. The use of your cellphone as a calculator is also prohibited.

Course Content & Description

“Calculus” is derived from the Latin word for rock; people in ancient times used to do arithmetic with a pile of stones. Today, it is a branch of mathematics focused on limits, functions, derivatives, and integrals. This subject constitutes a major part of modern mathematics education. It has two major branches, differential calculus and integral calculus, which are related by the Fundamental Theorem of Calculus. Calculus is the study of change, in the same way that Geometry is the study of shape and Algebra is the study of operations and their application to solving equations. A course in Calculus is a gateway to other, more advanced courses in mathematics. Calculus has widespread applications in science, economics, and engineering and can solve many problems for which algebra alone is insufficient.

Course topics: Techniques of Integration, Differential Equations, Parametric Equations, Polar Coordinates, Sequences and Series, Vectors, Cylindrical and Spherical Coordinates, Lines and Planes in 3-space, and Vector Functions, spanning Ch. 7-13 in the textbook.

Liberal Education: This course meets the Mathematical Thinking requirement needed for graduation from the university, no matter what your major. In it, you will develop your skills for thinking logically and quantitatively about many kinds of problems. In a very real sense, you will be doing what mathematicians do: start with problems that are initially stated in words, turn them into precisely framed mathematical problems, apply mathematical techniques to find solutions, and interpret the solutions in the context of the original problem. Some of these problems will come from real life, such as problems involving population growth and decay, and others will come straight from mathematics itself.

Prerequisite: Grade of at least C- in 1371 or equivalent.

Help: The discussion sessions and office hours are the primary places to get help. Attendance is strongly encouraged for all classes, and if you are the least bit confused, get help quickly!

More Help:

- 1) ... The SMART Learning Commons is the only source for extra (free) tutorial help. They will be offering small group and pre-exam workshops starting Monday, Sept 9, 2013. For further information, go to: smart.umn.edu
- 2) ... At the end of September, the Math department will publish a list of private tutors.

Grading:

You can access your grades at any time at <http://www.moodle.umn.edu>. The course records will be kept in a numerical system. The letter grades, “A to F” will be assigned to the midterms, final exam, and of course, the course grade. The course grade is weighted as follows:

The average of all homework and quiz assignments counts for 20%.

The Gateway exam counts for 5%.

Each midterm counts for 15% (or 45% total).

The final exam counts for 30% of the final grade.

The final letter grade is assigned according to the Mathematics Department's grading policy for Math 1372, which applies to all sections.

Official University Grading Standards:

A: achievement that is outstanding relative to the level necessary to meet course requirements.

B: achievement that is significantly above the level necessary to meet course requirements.

C: achievement that meets the course requirements in every respect.

D: achievement that is worthy of credit even though it fails to meet fully the course requirements.

F (or N): Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

S: A grade of S requires a grade of C- or better.

Incomplete grade: A grade of "I" will be given for failure to complete all course requirements for reasons beyond the student's control. The minimum requirement for an incomplete grade is a vast majority of course work completed at the level of C- or better. An "I" grade requires a written agreement between the student and the instructor. It also requires the completion of a form, which can be obtained in Vincent Hall 115. After 1 year, an "I" turns into an "F" if the course work is not completed. Any arrangement for an incomplete grade **MUST** be made before the final exam.

Official University Statement on Academic Dishonesty: Academic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course.

Official University Statement on Credits and Workload Expectations: For undergraduate courses, one credit is defined as equivalent to an average of three hours of learning effort per week (over a full semester) necessary for an average student to achieve an average grade in the course. For example, a student taking a four credit course that meets for four hours a week should expect to spend an additional eight hours a week on coursework outside the classroom.

FOR YOUR INFORMATION

1. **Student with disabilities** that affect their ability to participate fully in class or to meet all course requirements are encouraged to bring this to the attention of the instructor so that appropriate accommodation can be arranged. Further information is available from Disability Services (Suite 230, McNamara Alumni Center or ds.umn.edu).

2. **Scholastic misconduct** is broadly defined as “any act that violates the rights of another student in academic work or that involves misrepresentation of your own work”. Scholastic dishonesty includes (but is not necessarily limited to): cheating on assignments or examinations; plagiarizing, which means misrepresenting as your own work any part of work done by another; submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials; or interfering with another student’s work. Such misconduct can have serious consequences, such as receiving a failing grade or dismissal from the university.
3. **To drop the course** For the various rules and deadlines for dropping this course, or any course, go to the Student One-Stop Home Page (www.onestop.umn.edu) and click on the following sequence:
 - (1) Under “Calendars”, Select:Cancel/Add and Refund Deadlines,
 - (2) Under “Cancel/Add deadlines by term”, Select: Fall 2014 ,and voila, there are all the conditions and dates.

Please note that I do not give the grade of “W”, that is between you, your adviser, and the Registrars Office!