

# MATH 2050: CALCULUS II

UVa-Wise. Department of Mathematics and Computer Science. Spring 2016.

## BASIC INFORMATION

Class meetings: Monday and Friday, 8:00–8:50; Tuesday and Thursday, 8:00–9:15. In Darden 214B.

Instructor: Dr. Matthew Harvey

Office: Darden Hall 235

Office phone: 276-376-4571

Office hours:

- Monday 9:00–10:00, 11:00–12:00
- Tuesday 9:30–12:00
- Wednesday 9:00–10:00, 11:00–12:00
- Thursday 9:30–12:00
- Friday 9:00–10:00, 11:00–12:00

Email: [msh3e@uvawise.edu](mailto:msh3e@uvawise.edu)

Web: [www.mcs.uvawise.edu/msh3e/](http://www.mcs.uvawise.edu/msh3e/)

## COURSE DESCRIPTION

The prerequisite for this course is satisfactory performance on the placement test or successful completion of Math 2040 with a grade of C or better.

This is the second course in the calculus sequence. The primary focus of this course will be the integral and its applications.

Course topics will include:

- antiderivatives
- the definite integral
- the fundamental theorem of calculus
- substitution
- area between curves
- volumes of revolution
- work
- methods of integration
- numerical approximation
- improper integrals
- arc length and surface area

- parametric equations
- polar coordinates

By the end of the course, you should be able to explain the connections between antiderivatives, integrals, and Riemann sums. You should be able to evaluate definite and indefinite integrals using standard techniques. You should be able to interpret certain types of applications (area, volume, work, etc.) in terms of integrals. You should be able to graph parametric and polar curves, and to perform basic calculations with them. The textbook for this course is *Calculus, Early Transcendentals*, 8th ed., by James Stewart. We will cover the material in chapters 5–8 and chapter 10 of this book.

## THE EVERYDAY CLASS

Your presence in class is expected. In class, you are expected to pay attention and contribute. At the very least, you must not be a distraction to your fellow classmates. Please silence all electronic devices. Disruptive behavior will not be tolerated. If I feel that you are a distraction to the rest of the class, I will ask you to leave.

## GRADES

It is important that you do not fall behind in this class. You will need to spend a lot of time outside of class in order to properly grasp the concepts and to master the techniques of the course. Homework will be assigned regularly. Your homework should be neat and organized and you should clearly explain your work. In addition, we will occasionally have short in-class quizzes.

During the semester there will be four

in-class tests (see the attached schedule). These are tentatively scheduled for the weeks of February 1, February 22, March 28, and April 25, although the exact dates are still to be decided. A typical test will consist of between 10 and 15 short answer questions.

- No make-up exams will be given unless you can present a valid documented excuse. In this case, you will either take a make-up exam or be given a grade based on other assignments, whichever I feel is more appropriate.
- Your final exam grade may be used to replace your lowest test grade.
- At the end of the semester you will have a comprehensive final exam.
- Course grades will be assigned according to these percentages:
  - homework and quizzes: 20%
  - tests: 60%
  - final exam: 20%

#### **DISABILITY SERVICES**

If you need course adaptation or accommodation because of a disability or if you have emergency medical information to share with me, please make an appointment to talk with me as soon as possible. To make inquiries regarding disability services, please contact Whitney Wells, Director of Disability Services, at 276-328-0265 or [wew3x@uvawise.edu](mailto:wew3x@uvawise.edu), or visit the Academic Support Center in Zehmer Hall.

#### **TITLE IX**

The University of Virginia's College at Wise strives to provide a working and educational environment for all faculty, staff and students that is free from sexual misconduct and harassment. Sexual harassment, sexual assault and other acts of sexual misconduct are forms of sex discrimination prohibited by Title IX. The College reaffirms its commitment to maintain a campus environment emphasizing the dignity and worth of all members of the college community. To view UVa-Wise's sexual misconduct and harassment policy visit: [www.uvawise.edu/compliance/TitleIX](http://www.uvawise.edu/compliance/TitleIX). If you have questions or concerns, please immediately contact:

Tabitha Smith, Title IX Coordinator  
Office of Compliance and Conduct  
1 College Avenue, Wise, VA 24293  
Office: 276-328-0131  
Cell: 276-870-5065  
Fax: 276-376-4876  
Email: [tabitha.smith@uvawise.edu](mailto:tabitha.smith@uvawise.edu)

#### **CHEATING**

Cheating will not be tolerated. Any student caught cheating will receive a zero on the assignment, will be reported to the Honor Court, and if found guilty may receive an F for the course.