

Math 136: Calculus 2
Spring 2017
Professor Levandosky

Course Web Page. <http://mathcs.holycross.edu/~spl/136/>

Time and Location. Monday, Wednesday, Thursday, Friday 1:00pm in Swords 328.

Contact Information.

Office: Swords Hall 336

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Phone: (508) 793-3358

Office Hours: MWF 11:00-12:00, T 1:00-3:00

Required Text. *Calculus, Early Transcendentals*, by Jon Rogawski and Colin Adams, 3rd edition. We will cover material from Chapters 5 through 10.

Course Description. This course will continue where Math 135, Calculus 1, left off. Most of the course will involve the study of integrals and their applications. After a brief review of Calculus 1 topics, we will study **definite integrals**, which arise naturally when trying to calculate areas of curved regions. We will then study the Fundamental Theorem of Calculus, which relates definite integrals to **antiderivatives**. A good deal of time will then be devoted to studying methods of finding antiderivatives, and methods of approximating definite integrals. We will then consider several other applications of integrals, in geometry, physics and probability. This will complete the section on integrals. The next section of the course will involve the study of sequences (infinite lists) and series (infinite sums), and their applications. The course will conclude with a study of differential equations. We will look at how differential equations are used to model a variety of different natural phenomena, and how our knowledge of integration helps to solve differential equations.

Format. Most meetings will consist of a lecture/discussion. It is expected that you come to class prepared. This means that you should have already read the assigned sections from the text listed on the course schedule. I suggest doing the reading the night before, and making a list of any questions you have about the material. Several times throughout the semester, you will break up into small groups and work on an assignment given out that day. On these days I will circulate around the room to check your progress and help out when you get stuck. The goal of this format is to allow you to work on problems in class and get immediate feedback on what you are doing correctly or incorrectly.

Homework. There will be weekly homework assignments. Each homework assignment will have an online component and a written component. The online component will be posted on WebAssign (www.webassign.net). The Class Key for our section is **holycross 1619 1888**. The written component will be posted on the course web page.

Quizzes. There will be a short quiz every Friday. The quiz will be on material from that week's homework assignment.

Exams. There will be three midterm exams and a final exam. The midterm exams will all be held from 5:30pm to 7:00pm in Smith Labs 154. The final exam will be in our regular

classroom, Swords 328. Please let me know as soon as possible if you have a conflict with any of the exam times.

- Exam 1: Thursday, February 23
- Exam 2: Thursday, March 23
- Exam 3: Thursday, April 27
- Final: Monday, May 15, 11:30am

Grades. Grades will be calculated using the following system.

Midterm Exams	55%	(lowest score 15%, other two scores 20% each)
Final Exam	25%	
Homework	10%	
Quizzes	10%	

Sources of Help.

- My office hours listed above are the times that are set aside specifically for meeting with students. You do not need an appointment to see me during those times. I strongly encourage you to stop by whenever you have a question about the course material.
- The Calculus Workshop provides drop-in peer tutoring on a first-come, first-served basis. It is open Sunday through Thursday, 7:00-9:00pm in Swords 321.