

Math 136: Calc II (Section 2: TTh 8:30-10:00)

Course name: Math 136 - Calculus II (Section 2)

Instructor: Dr. Danny Crytser

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Class Meetings: TTh 8:30-10:00 in Valentine 205

Office hours: (Subject to revision) Wednesday 10:00-11:30 and 1:15-3:00, Friday 2:30-3:30, and by appointment. If you can't make it to scheduled office hours, please email me and we can probably make an appointment.

Textbook: *Calculus: Single Variable* by Hughes-Hallett et al., 7th ed. Most people get access to the book online via WileyPlus. (You can buy a physical copy, but it's not required.) **It's important to get the correct edition: previous editions don't have the same exercises.**

Calculators: you will need a calculator in the TI-83 or TI-84 range, or equivalent, but below the level of a TI-89. Sometimes the Peterson Quantitative Resource Center (PQRC) has some calculators available to borrow. You are responsible for bringing a functional calculator to class meetings.

Course contents: Whereas derivatives measure rates of changes, integrals measure total or accumulated change. We will study: antiderivatives, definite integrals, u -substitution, integration by parts, applications to geometry and physics, and differential equations.

Daily Worksheets: During each Tuesday meeting I will distribute worksheets for you to complete in groups. I will assign the groups and change them regularly. These meetings are worth 1 extra credit point. These meetings are worth 1 extra credit point (you won't have to turn in the sheets).

Homework: There are written assignments due at the beginning of **each quiz or exam day** (listed on the course schedule). The HW assignments will be posted after each class meeting, along with their due date. The value of each homework assignment is about 5 course points. Each HW assignment is graded as a check minus (60 percent), check (80 percent), or check plus (100 percent).

Quizzes: There will be **weekly quizzes** according to the **schedule** on Page 3 (please note that the first two quizzes are on Tuesdays, but the quizzes are on Thursdays after that). These will mostly consist of problems similar to those on the daily worksheets. Each quiz is worth **30 points**, so attend those classes. (See "Exams" for details on makeups.)

Exams: Three midterms and a final. The midterms are on the weekly schedule on the next page. Please let me know if this schedule conflicts with any of your other commitments. I will allow makeups for university-sanctioned activities and for medical/family emergencies, but **not** in any other case. No accommodations for personal travel, in particular, spring break travel. **So don't plan on skipping class on 3/14!**

Grading: There are 9 quizzes each worth 30 points, 3 midterm exams each worth 100 points, one final exam worth 150 points, and a total homework grade of 50 points, for a total of **770 unadjusted points**. I will **drop your lowest quiz score** when tabulating your grade (and then find the percentage out of **740 adjusted points**), unless doing so would result in a lower grade. I add one **extra credit point** for each non-quiz, non-exam class meeting you attend (except the meeting on 5/2). There is **no curve** or weighting.

94-100	4.0	73-75	2.25
91-93	3.75	70-72	2.0
88-90	3.5	68-69	1.75
85-87	3.25	65-67	1.5
82-84	3.0	63-64	1.25
79-81	2.75	60-62	1.0
76-78	2.5	0-59	0

Weekly schedule: This schedule is *tentative*.

Class	Section	Topics	Quiz
Th 1/17	–	No class (Crytser traveling). Read review of Math 135 material.	
T 1/22	5.1	Introductions. Distance traveled and Riemann sums.	
Th 1/24	5.2, 5.3	Riemann sums and the definite integral.	
T 1/29	5.3, 5.4, 6.1	Properties of definite integrals. Fundamental theorem.	QUIZ
Th 1/31	6.2, 7.1	Basic antiderivatives. Substitution.	
T 2/5	7.1	Integration by substitution.	QUIZ
Th 2/7	–	Review	
T 2/12	–	Exam 1	
Th 2/14	–	Mid-winter break.	
T 2/19	7.2	Integration by substitution and by parts.	
Th 2/21	7.2	Integration by parts	QUIZ
T 2/26	7.6	Improper integrals	
Th 2/28	8.1	Geometry: area and volume	QUIZ
T 3/5	8.2	More applications to geometry.	
Th 3/7	8.4, 8.5	Applications to physics	QUIZ
T 3/12	8.5	More physics. Review	
Th 3/14	–	Exam 2	
T 3/19	–	Spring Break	
Th 3/21	–	Spring Break , Ctd.	
T 3/26	11.1, 11.4	Differential equations. Separable equations.	
Th 3/28	11.4	More separation of variables.	QUIZ
T 4/2	11.2, 11.6	Math modeling. Slope fields and steady-state solutions.	
Th 4/4	11.5	Growth and decay	QUIZ
T 4/9	11.10,11.11	Second order systems and characteristic equations.	
Th 4/11	11.11	More second order	QUIZ
T 4/16	–	Review.	
Th 4/18	–	Exam 3	
T 4/23	4.8, 8.3	Parametric equations and polar coordinates.	
Th 4/25	4.8, 8.3	More on parametric and polar.	QUIZ
T 4/30	–	PDES: Heat/wave/Laplace/Schrodinger	
Th 5/2	–	Review. Last class!	

FINAL EXAM: Wednesday, May 8th, 1:30-4:30 PM.

How to succeed: The pace of this course is not meant to be punishing but, as a university course, it requires constant attention. In order to get a good grade, you must attend all lectures, submit all HW, keep a consistent study schedule, and make use of all resources at your disposal. Those include: asking questions during lecture, coming to my office hours, going to the QRC, forming study groups, and if need be inquiring about private lessons/tutoring. I am more than happy to help you navigate the various resources at your disposal. However it is ultimately your responsibility to figure out how to succeed in this course.

Accessibility: If you have a disability and need accommodations please be sure to contact the Student Accessibility Services Office (315.229.5537) right away so they can help you get the accommodations you require. If you will need to use any accommodations in this class, please talk with me early so you can have the best possible experience this semester. Although not required, I would like to know of any accommodations that are needed at least 10 days before a quiz or test, so please see me soon. For more specific information visit the Student Accessibility Services website

<https://www.stlawu.edu/student-accessibility-services> or
or email them

studentaccessibility@stlawu.edu.

Academic honesty policy: Click on the link to the pdf at

<http://stlawu.edu/academic-affairs/resource/academic-honor-policy>

In this course you are encouraged to collaborate on HW, but don't copy your the work of your friends, and never cheat on quizzes or exams. When in doubt, please email me and I'll be very happy to clarify things for you.

Finally: Have fun! Integrals and differential equations are used throughout physics, economics, engineering, biology, mathematics, and many other disciplines, so we'll be studying ideas that tie into many different fascinating subjects beyond mathematics.