

Syllabus for Math 235, *Calculus I*, Fall 2022

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COURSE GOALS: Math 235 is the first course in the Calculus sequence 235/236/237. Topics include limits, differentiation, applications and integration. Pre-requisite: Sufficient score on the math placement exam.

JMU GENERAL EDUCATION ALIGNMENT: Math 235 satisfies JMU's General Education Cluster Three Quantitative Reasoning [C3QR] requirement, "Students build mathematical models of systems and learn to understand, interpret and analyze data that is numerical in nature." Of the Cluster Three learning objectives, Math 235 is most directly supporting the following outcomes:

- *Describe the methods of inquiry that lead to mathematical truth
- *Use theories/models as unifying principles that help us understand natural phenomena and make predictions.
- *Use graphical, symbolic, and numerical methods to analyze, organize, and interpret natural phenomena.

REQUIRED TEXT: *Calculus, Early Transcendentals, 8th ed.*, by James Stewart. You are required to purchase access to Webassign which comes with an electronic copy of the text. If you want a hard copy of the text, several options are available. You may purchase a hard copy, rent a hard copy, or purchase loose leaf pages of the text. My recommendation is to purchase "Cengage Unlimited" which give you access to any Cengage course that you are taking, text rentals for \$7.99, and multi-term access for all courses accessed this semester. This will give you access if you take Math 236 or 237 since the same text is used. The cost is \$124.99 (if it does not cost this amount, you do not have the correct option).

CALCULATORS and NOTEBOOK: For quizzes and exams, you may use a simple scientific calculator that is not programable and does not store formulas. You may use any calculator or computer graphing program to assist you in understanding the material and doing the homework. You may want to have either a spiral notebook with pockets or a small 3 ring binder to keep notes and quizzes and exams.

OFFICE HOURS: In Roop 111. I will be available to talk in Burruss 126 MWF from 11:10-11:30am and Th from 10:50-11:10am. In addition, I will hold office hours in Roop 111 M, Th 12:30-1:30pm and Friday 9-10am. Other times are available by appointment in person and by Zoom.

ATTENDANCE: Attendance at in-person class meetings and synchronous online class meetings is required. Attendance will be taken each class day. If you are sick or experiencing COVID symptoms, please do not come to class. Contact me by email within 24 hours and your absence will be excused. You will still need to turn in all assignments. If you need an extension due to illness, let me know.

GRADING: The grades will be assigned the following scale:

- A: 90-100%,
- B: 80-89%,
- C: 70-79%,
- D 60-69%,
- F: Below 60%

There will be no curves or extra credit. I will assign +/- on an individual basis. Points are assigned as follows:
Quizzes (10) - 100 points,
Midterm exams (3) - 100 points each,
Webassign and Group Projects- scaled to 100 points (15% of grade),
Final exam - 150 points

QUIZZES: There will be a 10 point quiz each **Friday** that we do not have an exam. This quiz will cover material through the previous quiz or exam. Quiz questions will be similar (but certainly not limited) to homework questions. The 10 best quiz scores will be kept, and the rest will be dropped. In general, there will be no make up quizzes. The quizzes are a good way for you to gauge your understanding of the current material and to keep up with the homework.

MIDTERMS and FINAL: There will be three midterms during the semester worth 100 points each and a cumulative final exam worth 150 points. If you cannot make it to a scheduled exam, you **MUST** contact the instructor **BEFORE** the exam if at all possible, or if an emergency, **WITHIN 24 HOURS** after the exam if you need to schedule a make up exam. Make up exams will only be given for extreme excuses.

Dates for exams :

Midterm I - Thursday September 22

Midterm II - Thursday October 27

Midterm III - Wednesday, November 30

Final Exam - Section 004 (MWF 10:20) Tuesday, 8:00-10:00am

Section 006 (MWF 11:30) Wednesday, 10:30am-12:30pm

WEBASSIGN: You will access Webassign through Canvas, therefore you will not need a class code. You will be able to see all due dates on Canvas. You will turn in all of your homework on Webassign and some of the Group Projects as well.

HOMEWORK: Homework problems will be assigned after each section via Webassign. We will cover approximately 2 sections per week. You should keep notecards with Theorems, Definitions, sample problems and any other things you think you need to memorize. These notecards can be reviewed before each quiz, exam and the final exam. See below for "additional help".

Webassign strategies: You will be given 10 opportunities to get the right answer for an open ended question. True/False questions only get one opportunity and multiple choice get 2. Sometimes you will get the wrong answer because you misread the question or because your notation is not correct. You will get full credit if you get the correct answer within the 10 tries. If you cannot get the right answer (you do **NOT** have to try 10 times!) or if you have to make more than one attempt (not due to notation) write down the problem in your notebook and ask about it in class or office hours. When reviewing for quizzes and exams, pay particular attention to the Webassign problems that you wrote in your notebook.

There will be opportunities to ask questions about the homework problems during class and in office hours. However, there may not be time to answer everyone's questions, or go over every homework problem. You are encouraged to work together in groups - either in person or online - on the homework problems.

ADDITIONAL HELP: Calculus is a notoriously difficult class. Expect to put a lot of time and effort into the class and homework. Do **NOT** allow yourself to fall behind! This class moves very quickly, and there is not time to catch up. If you feel yourself falling behind, make an appointment during office hours to discuss how to keep up. If you need extra help, come to office hours and form a study group with others in the class.

The Science and Math Learning Center (SMLC) is providing free, synchronous and asynchronous online tutoring starting September 2. Check the website <https://www.jmu.edu/smlc/> for hours.

HONOR CODE: You are to abide by the JMU honor code at all times. Ignorance of the law is no excuse. Cheating will not be tolerated and will be prosecuted to the fullest extent. Familiarize yourself with the honor code here: <http://www.jmu.edu/honorcode/>.

ADDITIONAL UNIVERSITY POLICIES: For University policies regarding attendance, inclement weather, disability accommodations and religious accommodations, please see: <http://www.jmu.edu/syllabus/>

COVID 19 POLICIES: The official JMU COVID-19 information page is here: <https://www.jmu.edu/stop-the-spread/>. Masks and social distancing are not required at this time. I am aware that these are uncertain times and that you may be under a significant amount of stress, inconvenience, and emotional weight this semester. I will be supportive of you protecting your own health during this continuing pandemic. Please feel free to reach out to me if you need assistance of any kind.

MENTAL HEALTH SUPPORT: The JMU Counseling Center <https://www.jmu.edu/counselingctr/> has many resources and programs that are free to students seeking help and support. [Madison Cares](#) is a referral service for JMU community members to refer a student to get help. If you find yourself facing severe stress, suffering mental pain, enduring abuse, or having a difficult time coping with everyday life, please feel free to reach out to me. Together we can find resources on campus that can provide you with assistance and support.

FIRST WEEK ATTENDANCE POLICY: At the instructor's discretion, any student registered for a class in the Department of Mathematics and Statistics who does not attend at least one of the first two scheduled meetings of the class in person MAY be administratively dropped from the class. Students will be notified by e-mail if they will be dropped. Students who fail to attend should not assume they will be administratively dropped by their instructor; it is the student's responsibility to drop the course on their own or they will receive a grade at the end of the semester. All students are responsible for verifying the accuracy of their schedules and changes made in their schedules.

EQUITY AND INCLUSION: Mathematics is for everyone, and everyone can do mathematics. YOU are welcome in this class, and YOU can do mathematics. I support every student in learning mathematics regardless of age, gender, identity, race, religion, orientation, economic situation, language ability, major, or anything else. Our class and my office are safe places for every student. I affirm that the lives and experiences of Black, Indigenous and People of Color matter and are valued in this class. I invite you to share anything with me that might help create a more inclusive and welcoming learning environment.

LEARNING: Your goal in this class is to learn Calculus. My role is to facilitate that learning. You will get out of this class what you put in to it. There are no shortcuts. You MUST do the homework. You MUST study for the quizzes each week. You MUST get help as soon as you do not understand a concept so that you can LEARN it and move on to the next one. Learning is not easy. It takes effort and persistence. It is a struggle. Do not see your mistakes as failures, but rather as learning opportunities! It is the struggle that leads to learning. Embrace the challenge.

WELCOME TO CALCULUS!!

Tentative Schedule

Week 1: 8/24-8/26 (No Class Monday) Intro, Ch. 1 review, Quiz 1

Week 2: 8/29-9/2 2.2, 2.4, Group Project 1, Quiz 2

Week 3: 9/5-9/9 2.3, **Wednesday: Asynchronous** Video Lecture 2.5, Group Project 2 , Quiz 3

Week 4: 9/12-9/16 2.6, Group Project 3, Quiz 4

Week 5: 9/19-9/23 2.7, **Thursday: Exam 1, Ch 2, Friday: Asynchronous** Video Lecture 3.1

Week 6: 9/26-9/30 3.1, 3.2, Group Project 4, Quiz 5

Week 7: 10/3-10/7 3.3, 3.4, Group Project 5, Quiz 6

Week 8: 10/10-10/14 Monday 3.5, **Wednesday-Friday Fall Break, no class**

Week 9: 10/17-10/21 3.6, 3.9, Group Project 6, Quiz 7

Week 10: 10/24-10/28 Ch. 3 Review, **Thursday: Midterm 2, Ch. 3, Friday: Asynchronous** Video Lecture 4.1

Week 11: 10/31-11/4 4.2, 4.3 Group Project 7, Quiz 8

Week 12: 11/7-11/11 4.4, 4.5 Group Project 8, Quiz 9

Week 13: 11/14-11/18 4.8, Group Project 9, Quiz 10 **Friday: Asynchronous** Video Lecture 4.9

Week 14: 11/21-11/25 **Thanksgiving Break**

Week 15: 11/28-12/2 Review Ch. 4, **Wednesday: Midterm 3 Ch. 4, Thursday** 5.1, 5.2, Quiz 11

Week 16: 12/5-12/9 5.3, 5.4, Final review, Quiz 12

Final Exam: Section 004 (MWF 10:20) Tuesday, Dec. 13, 8:00-10:00am
Section 006 (MWF 11:30) Wednesday, Dec. 14, 10:30am-12:30pm