Syllabus

Math 225 Spring '21

Text: Calculus, 8th edition by Stewart

Instructor: Jed Herman Office: SCI D 287

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Office Hours: M 4:00 – 4:50, WTh 2:00-2:50, Th 12:00 – 12:50

or by appointment (all office hours are via zoom)

Class times & room

MTh 1:00 – 1:50 in Science A 121* WF 1:00 – 1:50 in Science A 121*

T asynchronous class day

* students attend in person according to their cohort; some students attend MTh, some attend WF, a few attend all four days, and some students are virtual every day. When you are not attending in person, you are expected to attend via zoom on class days.

Mathematics-specific Learning Objectives

- To learn the calculus of integration, differential equations, and infinite series and how to solve mathematical and applied problems using them
- Work effectively in different coordinate systems, including in three dimensions
- Present and communicate calculus ideas effectively to others
- To learn how to effectively read mathematical and scientific writing
- Work in small groups to answer mathematical problems

Calculators

A graphing calculator will be required for this course. If you are going to purchase a calculator for this course, a good one might be one from the **TI-8x** series. All calculators are slightly different. Be sure that you have a manual (many manuals are available online).

Some computer software will be used in this course, so you will occasionally need to use computers to do portions of your assignments. This will be explained as the course progresses.

Academic Misconduct Policy

I expect you to complete the coursework for this course. Failure to complete an assignment will result in zero points awarded. Also see the following link:

http://www.uwsp.edu/admin/stuaffairs/rights/rightsChap14.pdf

Student Rights and Responsibilities

You have certain rights and responsibilities. For more information, see the following link: http://www.uwsp.edu/admin/stuaffairs/rights/rightsCommBillRights.pdf

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Attendance and Engagement:

Attendance is expected. Because class participation is graded (see below), being in class is essentially part of your grade. Of course, real life is messy, so sometimes things can come up which make you miss a class or two. If you have to miss a class period, let your instructor know ahead of time (email is a good way).

If you are normally attending in person, it is okay to switch to virtual for a few days. If this is going to be a long term change, however, please let your instructor know – it can affect class plans.

Missing exams and/or presentation days will only be allowed for extreme circumstances and will require DOCUMENTATION (so for example, if you are too sick to take an exam the instructor will need a note from a medical professional). Whenever possible, you will need to let your instructor know BEFORE the day in question.

Grading

Grading will be based on an overall percentage score, using the following scale:

90%+ A- or better	-	80%-89.9% B-, B or B+
70%-79.9% C-, C or C+		60%-69.9% D-, D or D+
<60% F		

I reserve the right to adjust the final percentage +/- up to about 2%, based on my assessment of your effort and/or participation in the class and course in general.

To get your overall score, you will be graded on the following:

Participation and Daily Quizzes	1/7*
Weekly Homework	1/7*
Class Presentations plus Comments	1/7*
5 total exams (counting final)	5/7*
Total	100%

Note: you cannot simply add your points together for each activity – a homework point and an exam point, for example, are not worth the same part of your grade. Because of this, Canvas total grades are not useful – grades on individual assignments are useful, but the totals are not.

^{*}Also note: there are 8 scores total, but only 7 count towards your grade. I will drop your lowest one. This means 1) you can bomb one test and still do fine in the class, or 2) if you are happy with your grade on the last day of class, you can skip the final (as a reward for consistently good work).

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Weekly Homework

Learning is more about *doing* than *watching*. Each week you will be assigned homework problems to write up (NEATLY and CLEARLY) and turn in via Canvas. You may upload them as a scanned pdf or a word document – or if you can't figure out how to scan your assignment, you can take pictures of the pages and upload the pictures.

Do not wait until the last minute to do your homework! It is better to do it early so you can ask me if you have questions. Also note: there will be a Canvas Discussion Board for questions and answers to homework problems – you can earn extra credit for posting content there.

Daily Quizzes

Most class days, there will be a homework problem to do (on Canvas) DUE BEFORE CLASS, about the day's material. These are prep questions, chosen to prepare you for the day's material. You CAN get help on these, but they are due before class starts – whether you are in person or virtual. Because these are written in quiz format, you have a text box to write your solution and work, rather than an upload.

Participation

Most days will have class work – either group worksheets or class discussions on the topics of the day. You are expected to be in class and participate in the day's activities. *This is part of your grade!* This means two things: if you skip class your grade will tend to suffer, but if you come to class and try hard, your grade will be better for it.

Some time after class you will need to submit the daily worksheet with your work on it (you may write it out on your own paper if you prefer). The submission is similar to the process for weekly homework, but there is one submission (nearly) every class day.

Presentations

Along these lines, you will also be expected to *present solutions* to a few problems during the semester. These problems will be given on a handout; there will be a Canvas discussion board set up for problem requests. There will be a Canvas Board for posting your presentation – basically, you need to SOLVE your problem, EXPLAIN your reasons, and WALK US THROUGH all the steps to the solution. If you wish, you can do this via a short video, but it is expected that most people will write up their solutions using something like Word (with its Equation Editor to help).

Tuesday Classes

This course is 5 credits, so we have work for every day of the week (Monday through Friday). Tuesdays we do not meet together as a class (not in person, not via zoom). Instead, the class worksheet is on Canvas and often involves computer apps (like Desmos or maybe even Mathematica). Like the in-class worksheets, these are part of your grade.

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Exams

There will be five exams and a cumulative final, marked on the schedule, below. Note that the actual dates of the exams may vary slightly. All exams will be taken online. This will be explained in more detail as the semester progresses.

Extra Credit

There will be Canvas Discussion Boards for homework questions. If you <u>post a question or an answer to a question on this board</u>, you will receive extra credit (max +1 point per week can be earned). Your SUBJECT LINE should include the problem number, and your MESSAGE should <u>include a restatement (full or partial) of the problem</u>. This way, other students will be able to read and learn from the postings. *To be eligible for the extra credit, your posting must have <u>content</u> – a posting such as "I agree" or "That doesn't seem right" does not earn any extra credit on homework.*

Discussion Boards

There will be discussion boards set up for this course, via Canvas. There will be *three* discussion board areas:

- 1) Boards for homework problems are optional and can earn you extra credit.
- 2) Boards for reserving presentation problems and for submitting the presentations.
- 2) General discussion boards are <u>optional</u> and offer no grade benefit. They are set up to allow you to ask your professor questions, or to offer a place for discussions not about the material (e.g., organizing study sessions, complaints about the book, etc.).

All boards will be monitored after the fact. That is, you will post directly to the board, and I will monitor periodically throughout the week. Certain standards apply to postings:

- Postings are never anonymous
- Postings <u>must not</u> contain inappropriate (foul, rude, hostile) language Violation of these rules may constitute academic misconduct (see below).

Video Lectures

A while back I made videos for this course – not this book, but one close to it. They are on YouTube using the title Calculus (Doctor Jed). Links will also be on Canvas eventually.