

Syllabus

Math 226

Spring '22

Text: **Calculus**, 8th edition by Stewart

Instructor: Jed Herman Office: SCI D 287 eherman@uwsp.edu

Office Hours: M 3:00-3:50, T 2:00 – 3:50, F 12:00 – 12:50 (zoom only)

Zoom Office Hours are also available by appointment most Fridays 1:00 – 1:50 pm

Class times & room: Section 1: MTW(F*) 1:00 – 1:50 pm in SCI A208

*see page 3 of syllabus about Fridays

Face Coverings

You probably know this already, but...

At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the [Disability and Assistive Technology Center](#) to discuss accommodations in classes. Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors. Failure to adhere to this requirement could result in formal withdrawal from the course.

This policy may change, but follow it until otherwise directed.

Other Guidance

- Please monitor your own health each day using [this screening tool](#). If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
- As with any type of absence, students are expected to communicate their need to be absent (email me!) and complete the course requirements (see later about this).
- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face. Basically, use good hygiene!
- Please maintain these same healthy practices outside the classroom.
- Consider getting a vaccine(s) if you have not already done so. The vaccine will not make you immune to COVID-19, but it will reduce your risk significantly.

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).

The computer software *Mathematica* will be used extensively in this course, so you will occasionally need to go to the computer lab to do at portions of your assignments (it should be available on a remote lab desktop). *Mathematica* is not user-friendly, but it can do amazing things.

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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

Attendance and Missing Class:

You are expected to regularly attend class. When circumstances arise to prevent you from coming to class, you should let your instructor know (email is a great way to do so). That said, people do get sick (please look at the daily [screening tool](#)) and emergencies can happen. If you miss class, you should let me know what is going on (email is best, but in an emergency you can contact the [Dean of Students office](#), 715-346-2611) – and you are still expected to do the daily work for the class (more on this later).

Note: missing an exam or scheduled presentation day will only be allowed in exceptional circumstances and will require ACCEPTABLE DOCUMENTATION as to the reason for the absence.

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/Daily (in class) Homework	1/7*
“Quizzes” (10, drop one)	1/7*
Class Presentations and Labs	1/7*
5 total exams (counting final)	<u>5/7*</u>
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.

*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).

Fridays (and Quizzes)

This is a five-credit class scheduled for five days a week. That said, five days is a lot of in-class time, and some of that time doesn't really need to be *in class*. When we are in class (Monday through Thursday) we will be hands on with the material. But that means we can do Fridays a little differently.

Most Fridays are *asynchronous* and *virtual* – we do not meet in person, and we do not even need to meet at all! You need to do stuff for Friday class – but you can pick *when* you do it. You can do Friday's class at 2 am in the morning, if it seems like a good idea. Or Thursday evening. As long as you get the work done, I don't care when you did it.

Now there ARE some Fridays when you need to be in the classroom. These are the in-class exams (see below) plus the last day of the semester. **These are NOT OPTIONAL!**

So what do we do (most) Friday classes? There are two things – a “quiz” and a worksheet. The worksheet is like normal daily worksheets (see Class Participation, below).

The quizzes... the word is in quotes because they are *really* homework assignments in disguise. You will know ahead of time what problems will be on the quiz – they are on the homework sheet handout. Quizzes are open notes, so if you do the quiz problems ahead of time you will have an easy time with the quizzes. Or you can challenge yourself to solving problems in a timed setting.

Quizzes are taken on Canvas. They are timed – you will have 30 minutes to finish them. The actual problems on *your* quiz will be randomized – so you don't know which problems from the set will appear – but expect about three problems for most quizzes... actually, there will be twice that many: one problem for an answer, plus one problem to type out supporting work (this way you can quickly put in the answers then take a little time to write out some work for each one). Typing work can take some time – you don't need to write EVERY step, but you need some work for almost all problems – some intermediate steps or some sentences or whatever. If you find it very hard to use the math options in Canvas, use shorthand like x^2 or \sqrt{x} or whatever.

You can work with others *preparing* for the quiz, but once you take it, do your own work. Getting help during the quizzes or helping someone else during their quiz is an academic violation and can have consequences. If you are unsure of these instructions, ask your instructor!

Videos

We have access to a number of short videos for many (most?) of the sections of our textbook. They were created by a colleague for his classes. They look pretty good to me, but you can decide if they are helpful or not. They are available on Canvas and are purely optional.

Daily Homework

There will be one (or two) homework problems to do before class almost every class day. These are prep questions, exercises chosen to prepare you for the day's material. You can compare your work with your classmates – and classmates *can help* you – but you must turn in your own written solutions to the problems. Turn these in on Canvas before class – scan or take pictures of your work and upload it to the appropriate place. Don't ignore these assignments – they are a significant part of your grade!

Class Participation

Your instructor believes in *active learning* – students learn more from *doing* than from *watching*. To that end, most days will have class work – typically a group worksheet 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!*

If you are in class and trying, you will get credit for that day's worksheet. If you have to miss class, you will need to submit the worksheet on Canvas (see Daily Homework – above – for more on how to submit assignments on Canvas). If you came to class and worked on the worksheet you *may* submit it on Canvas, but it's not necessary.

These worksheets are always graded on effort rather than accuracy. Learning is messy, and being occasionally wrong on a worksheet is very normal. Being wrong all the time is less desirable, but mistakes on your worksheet won't hurt your grade.

Important note: Friday worksheets must be turned in on Canvas (since we do not meet in person)!

Presentations

Another *active* way to learn is to *present solutions* to problems. You will be expected to do this a few times during the semester. The list of problems is on the homework handout. Up to two people will be able to present every in-person class day (with exceptions); you can sign up for a problem and a day on Canvas. Be sure to check whether there are others presenting on your day!

Presentations can be a little nerve-wracking, so it is acceptable to present with someone else. Both of you need to contribute to the presentation, and both of you will get the same grade for that presentation.

How many presentations are needed? You need a combination of at least **SIX Presentations PLUS Labs** (see below). To encourage a combination, after four presentations each further presentation only counts half (though I will fully count your BEST four, regardless of order). The same is true of Labs: after four labs each further one counts only half. You could therefore do 3 of each – but other combinations are possible.

Computer Labs

Sometimes computers can help illustrate certain mathematical concepts. There are six labs available this semester. Many use the application *Mathematica*, a powerful mathematical engine that is not at all user-friendly. The first lab deals with some of *Mathematica's* quirks and may help make the others better.

Not all labs use *Mathematica*; some use websites like *Desmos* or *WolframAlpha*. They are designed to help you visualize or understand the material better.

Labs are submitted in a manner similar to homework. Note that you need a combination of (at least) SIX Presentations plus Labs, with only the first four labs counting for full credit.

Exams

There will be four exams and a cumulative final, marked on the schedule. Note that the actual dates of the exams may vary slightly. Exams are in person.

Extra Credit

There will be a Canvas discussion board topic listed for each daily homework/quiz preparation. If you post a question or an answer to a question on this board, 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 include a restatement (full or partial) of the problem. 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 content – 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 days.
- 2) General discussion boards are optional 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 must not contain inappropriate (foul, rude, hostile) language

Violation of these rules may constitute academic misconduct (see below).

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>