## Syllabus

MATH 252. Calculus II CRN 13314 FALL 2024

Instructor: Dr. Micah Warren, Fenton 318, 541-346-5618.

\*\*Syllabus subject to change

Time and Location: M,T,W, R (Thursday!!). 3:00-3:50, 253 STB

Office Hours: Monday 9:30 - 10:30 Thursday 12:30 - 1:30 or by appointment.

Final: 14:45 Monday, December 9 (Verify this for yourself before booking flights)

Standard Course description: Standard sequence for students of physical and social sciences and of mathematics. Differential calculus and applications. (Usually comes after 251 and before 253)

Textbook: https://openstax.org/details/books/calculus-volume-2

**Prerequisites:** C- or better in Math 251 . If you have some exceptional circumstances, you can talk to me.

**Learning Outcomes:** The aim of this course is to introduce antiderivatives and their application. Successful students will understand how to model problems that can be solved with calculus and then use calculus to solve those problems.

In particular, students will be able to find the area under the curve for a class of single-variable functions. Students will demonstrate ability to use standard integration techniques such as substitution and integration by parts.

Importantly, students will be able to construct integrals from real-life problems. The fundamental theorem of calculus is simply a variable version of distance = rate \* time. Students should demonstrate a mastery of this concept.

**Grading:** There will be weekly assignments, quizzes, two midterms and a final. They will count toward the grade as follows.

Homework (Webwork) 20% Quizzes 20% (total) Midterms 15% (each) Final 30%.

Grades are "curved" in the general sense that I won't be using "90% => A" etc. Historically, my exams have mean score in the 60-70% range. At the end of the course the grades will be computed and curved, however the correspondence between position on the curve and the letter grades is not predetermined.

The number canvas produces to approximate your course grade is not your grade. Please ignore it.

**Webwork:** This is available throught the webwork website:

ttps://uowebwork.uoregon.edu/webwork2/Math252-13314/.

Webwork is assigned via the webwork site, not can vas. WEBWORK WILL BE DUE MOST WEEKS REGARDLESS OF WHETHER IT IS LINKED TO A CAN VAS ASSIGNMENT While I may post the announcement of the webwork on Can vas, the due dates and actual assignments are controlled on the webwork site, which is not Can vas. So please pay attention to the webwork site as Webwork  $\neq$  Can vas. If I don't post a link directly to the assignment, it's still due when it's due on the Webwork website. The can vas assignment is simply a courtesy announcement so that it shows up in you to do list, it's not the assignment itself.

Quizzes: Short quizzes on Thursday (20-25 minutes) reviewing material up through wednesday. Lowest quiz will be dropped.

**Exams:** No calculators/smart watches, etc are available for the exams. Obviously, no collaboration on the exams. I expect the exams to happen on the fourth and eighth weeks.

**Final:** The final exam is cumulative and scheduled for 14:45 Monday, December 9. (\*\*Please confirm this for yourself before booking airline tickets) The same rules apply as for other exams Faculty legislation prohibits final exams from being administered early.

AI/LLM/Wolfram Alpha/Claude etc policy: Obviously none of this stuff will be allowed to solve math problems on exams. It's fine, if you want to get yourself unstuck doing homework problems to consult these as resources, I can't stop you. A generally good practice is to do the problem yourself and then check your work. It's very bad practice to become reliant on these tools to hold your hands through the tough parts.

Some of these LLMs are OK at talking you through misunderstandings. It's totally fine to tell an LLM "I'm struggling to understand why the integral of  $1/(1+x^2)$  converges but 1/x does not." The LLM might be able to give you examples or explanations that work for you. The important thing is that you check to make sure you can do the problem and it actually works. LLMs are just making things up, most of the time for basic stuff they get it right. The important thing is that you verify yourself that it works.

Probably the best simple explanation I've come across for how to learn mathematics is "Watch one, do one, teach one." (This is one of the reasons why we often teach a lecture and then have students do group work together.) ChatGPT gives you an opportunity to do all three of these without another human, which is something you can take advantage of.

## Makeup policy:

- Webwork: No make-up policy for webwork. Do or do not.
- One Webwork is automatically dropped.
- Quiz: Similarly while the lowest quiz score will automatically be dropped, one additional quiz can be dropped provided you follow the following policy which is reason-neutral: No later than the day of the absence, you must email me confirming that you were not there and telling me when you think you will return. You are not required to tell me why you were not there. You're free to, but to be clear, I can't ask you to tell me and you certainly do not have to.
- Exams: You are allowed to replace the lower of your two midterm scores with the final score, provided it's higher. That being said, this option is not recommended. Please do what you can to not miss the midterms.
- Final: If you miss the final we're looking at either an incomplete or a bad grade. The incomplete policy requires the reason for missing the final be out of your control. This policy gives me some discretion. Faculty rules prohibit giving the final early. For full details on the (recently updated) incomplete policy, see https://registrar.uoregon.edu/current-students/incomplete-policy.

Attendance and Classroom environment: I won't be taking attendance or prioritizing your life for you, but in class, you shouldn't be texting or doing coursework for another class. If you have a paper for another course due at 3:00, that's your own problem - you should leave the class and finish the paper. However, I have loads of anectdotal evidence that attending class regularly is highly *correlated* with scoring well in a class.

If you have a question, please ask me. At any one point in time during the class, there may be a large portion of class who is not quite with me, for whatever reason- oftentimes a stupid question is just what other students need to refocus their attention. In fact, there is well-documented evidence that attention spans during a lecture will almost always fail every fifteen minutes. I keep this in mind and welcome opportunities to reset. If you ever want me to take a two minute break, just stop me and tell me! If it's good for you it's probably good for the rest of us.

Accessible Education: The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center in 360 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu.

Notes:

- I don't typically use slides, so will not be providing slides. While I will discuss my own examples, all of the main material is in the textbook.
- I'm fine with you recording lectures
- Up to you whether you take the weekly quiz with AEC, many students in the past have elected only to do this for exams

Other general university policies: Please see general universal policies (some of which are covered above, some which aren't): https://canvas.uoregon.edu/courses/196884/pages/general-university-classroom-policies

Academic Misconduct: Any type of academic dishonesty will not be tolerated. In the event of academic dishonesty, the offense will be reported to the Office of Student Conduct and Community Standards and the student will be sanctioned up to receiving a failing grade in the course. The University Student Conduct Code, available at

https://conduct.uoregon.edu,

defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at

https://researchguides.uoregon.edu/citing-plagiarism.

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Accommodation for Religious Observances: The university makes reasonable accommodations, upon request, for students who are unable to attend a class for religious obligations or observance reasons, in accordance with the university discrimination policy which says "Any student who, because of religious beliefs, is unable to attend classes on a particular day shall be excused from attendance requirements and from any examination or other assignment on that day. The student shall make up the examination or other assignment missed because of the absence. To request accommodations for this course for religious observance, visit the Office of the Registrar's website

https://registrar.uoregon.edu/calendars/religious-observances

and complete and submit to the instructor the "Student Religious Accommodation Request" form prior to the end of the second week of the term.

Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course is urged to contact the Dean of Students Office (346-3216, 164 Oregon Hall) for support. This UO webpage includes resources for food, housing, healthcare, childcare, transportation, technology, finances, and legal support:

https://blogs.uoregon.edu/basicneeds/food.

**Inclement Weather:** It is generally expected that class will meet unless the University is officially closed for inclement weather. If it becomes necessary to cancel class while the University remains open, this will

be announced on Canvas and by email. Updates on inclement weather and closure are also communicated in other ways described here:

https://hr.uoregon.edu/about-hr/campus-notifications/inclement-weather.

Mental Health and Wellness: Life at college can be very complicated. Students often feel overwhelmed or stressed, experience anxiety or depression, struggle with relationships, or just need help navigating challenges in their life. If you're facing such challenges, you don't need to handle them on your own—there's help and support on campus.

As your instructor if I believe you may need additional support, I will express my concerns, the reasons for them, and refer you to resources that might be helpful. It is not my intention to know the details of what might be bothering you, but simply to let you know I care and that help is available. Getting help is a courageous thing to do for yourself and those you care about.

University Health Services help students cope with difficult emotions and life stressors. If you need general resources on coping with stress or want to talk with another student who has been in the same place as you, visit the Duck Nest (located in the EMU on the ground floor) and get help from one of the specially trained Peer Wellness Advocates. Find out more at health.uoregon.edu/ducknest.

University Counseling Services (UCS) has a team of dedicated staff members to support you with your concerns, many of whom can provide identity-based support. All clinical services are free and confidential. Find out more at counseling uoregon edu or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number).

Reporting Obligations: I am an assisting employee, not a designated reporter. For information about my reporting obligations as an employee, please see Employee Reporting Obligations on the Office of Investigations and Civil Rights Compliance (OICRC) website. Students experiencing sex or gender-based discrimination, harassment or violence should call the 24-7 hotline 541-346-SAFE [7244] or visit safe.uoregon.edu for help. Students experiencing all forms of prohibited discrimination or harassment may contact the Dean of Students Office at 5411-346-3216 or the non-confidential Title IX Coordinator/OICRC at 541-346-3123. Additional resources are available at

https://investigations.uoregon.edu/how-get-support.