

COURSE INFORMATION FOR MATH 1170 CALCULUS I

Instructor Jordan Hardy
Brink M6 (but office hours will be held in Math Assistance Center)
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Teaching Assistants Lydia Tapp (Section 01)
Jeyoung Song (Section 02, 03)

Class Times

MWF 8:30-9:20, Ag Science 106

Recitation: T TLC 122 (Section 01)

or T TLC 046 (Section 02)

or T TLC 045 (Section 03)

Office Hours

Wednesday 2:30-3:30 PM, Thursday 2:00-3:00 PM

Office Hours will be held on the study side of the Math Assistance Center in Brink Hall.

Text

Stewart, Calculus, Ninth Edition with Webassign. This is already provided to digitally through Canvas. You have already paid for it with your course fee and do not need to get anything else.

Course Description

Calculus consists of two main parts: Differential calculus and integral calculus.

Differential calculus is the study of how things change relative to one another. For example, a physicist might want to study how the velocity of an object (the change in position over time) relates to other variables. Or a biologist might want to study how the population of two different species change relative to one another and to time. Calculus gives us the tools to talk about these things and solve problems with them.

We will begin with the basics, simply talking about how to define an "instantaneous" rate of change in the first place but then learn ways to use this to solve problems.

Integral calculus, which we will study later, is kind of the opposite of differential calculus. Instead of finding out how things change on a small scale we will discuss how things accumulate over time. For instance, the integral of the velocity of an object tells us how far the object has moved over a certain period of time.

We will learn tools to calculate integrals, including the Fundamental Theorem of Calculus, which is the primary tool we will use to calculate integrals.

Learning Outcomes:

- (1) Graph functions, including rational functions, exponentials and logarithms, and trigonometric functions.
- (2) Find limits and determine whether a function is continuous.
- (3) Calculate derivatives of functions.
- (4) Use derivatives to solve problems.
- (5) Evaluate integrals.
- (6) Solve problems involving definite integrals.
- (7) Solve problems involving transcendental functions.

Grading Policies:

Homework (20%): There will be two sorts of homework: written homework and online homework. Online homework will be completed through the WebAssign client online. Instructions on how to access the WebAssign homework will be posted on Canvas. The online homework will be worth 10% of your grade.

Written homework will also be assigned. Written assignments will be posted on Canvas along with due dates. It is expected that homework will be written neatly and legibly. The written homework will be collectively worth 10% of your grade.

Collaboration on homework is allowed and encouraged. Late homework will not be accepted except in extenuating circumstances, such as an illness.

Participation (10%): You are expected to participate both in class and in recitation. Participation will be measured in various ways, such as by submitting electronic responses to questions or by submitting papers after activities.

Exams (3 midterms at 15% each, one final at 25%)

There will be three midterm exams and a final exam. Midterms will be held on Thursday evenings. No credit will be given for missed examinations except in the case of a documented illness or an absence due to a university sanctioned event. If you have such an event, you *must* inform me at least a week in advance. Please note that exams will take place in the evening and not during your usual class time. Each midterm exam will be on a Thursday night from 7:00-9:00 PM.

There will be three midterm exams and one final exam. The days of midterm exams are on the course schedule. The final exam will be on Monday, December 15th from 7:00-9:00 PM. If you cannot make any of these times due to a conflict, please email me, telling me what the conflict is. There will be a conflict exam scheduled following the final exam.

Collaboration: You are *encouraged* to collaborate on solving the problems given as homework. However, the solutions should be written on your own and in your own words. *Clearly, there is no collaboration on exams.*

Point Distribution:

- Written Homework - 10 points
- WebAssign - 10 points
- Participation - 10 points
- Midterm Exams - 3 at 15 points each
- Final Exam - 25 points

Canvas and Electronic Submission of Assignments:

Our course webpage will be on Canvas <http://canvas.uidaho.edu>. Your grades will be viewable in the Canvas gradebook.

SI-PASS (Supplemental Instruction-Peer Assisted Study Sessions)

SI-PASS are peer-led, group study sessions scheduled outside of class time. These sessions are led by an SI-PASS Leader, a knowledgeable student who excelled in the course. The SI-PASS Leader facilitates study sessions using a variety of activities aimed to help students master course content and develop effective study skills regardless of their knowledge or skill level. These sessions are free, voluntary, and open to everyone in the course. Students who consistently attend sessions earn a half to a full letter grade higher on average for their final grade compared to students who do not attend.

Your SI-PASS Leader: Arjun R. (arai@uidaho.edu)

SI-PASS Schedule:

- Wednesday 3:30-4:20 - TLC 148
- Thursday 4:30-5:20 - TLC 145
- Thursday 5:30-6:20 - TLC 145

SI-PASS starts on Tuesday, September 2nd with study sessions running weekly through Thursday, December 11th. There are no sessions on September 1st, Fall Break, or university closures. If you have questions, talk to your SI-PASS Leader or email si-pass@uidaho.edu.

You will also be able to receive extra credit equal to 2% of your grade in the class if you attend at least 10 SI-PASS sessions. It's highly recommended to attend.

Course Policies and Expectations:

Time Requirements: Since this is a 4 credit course, a student can expect to spend (on average) approximately 12 hours per week in total on this class (reading, homework, participating/attendance, etc.) to earn an average grade. Some students may need more time, and some may need less time each week. Please make sure that you are using the amount of time that is right for you to be successful in this class.

Participation: Participation is part of your grade in this course and is statistically shown to be a major factor in your overall success in the class. You are expected to attend every

lecture and recitation and participate appropriately.

Late Work: I am usually pretty willing to give extensions on WebAssign assignments. For written assignments you need to have a reason for the extension (sickness, university sanctioned event, etc.). Please discuss with me for WebAssign extensions and your TA for written extensions.

Cheating and Academic Integrity: You are responsible for being aware of the policies of the University of Idaho on academic honesty and integrity. See Section A-1 of Article II of the Student Code of Conduct. This includes but is not limited to cheating, facilitation of cheating, plagiarism, and furnishing false information or false representation. Breaches of these policies will not be tolerated, and will result in a F for the course and referral to the Dean of Students for further disciplinary action.

Disability Access: The University of Idaho is committed to ensuring an accessible learning environment where course or instructional content are usable by all students and faculty. If you believe that you require disability-related academic adjustments for this class (including pregnancy-related disabilities), please contact the Center for Disability Access and Resources (CDAR) to discuss eligibility. A current accommodation letter from CDAR is required before any modifications, above and beyond what is otherwise available for all other students in this class, will be provided. Please be advised that disability-related academic adjustments are not retroactive

CDAR is in the Bruce Pitman Center, Suite 127. Their website, with all their details, is <https://www.uidaho.edu/cdar>. You can reach them by email at cdar@uidaho.edu or by phone at 208-885-6307.

University of Idaho Classroom Civility Clause: In any environment in which people gather to learn, it is essential that all members feel as free and safe as possible in their participation. To this end, it is expected that everyone in this course will be treated with mutual respect and civility, with an understanding that all of us (students, instructors, professors, guests, and teaching assistants) will be respectful and civil to one another in discussion, in action, in teaching, and in learning. Should you feel our classroom interactions do not reflect an environment of civility and respect, you are encouraged to meet with your instructor during office hours to discuss your concern. Additional resources for expression of concern or requesting support include the Dean of Students office and staff, the UI Counseling and Testing Center, or the UI Office of Human Rights, Access, and Inclusion.

AI Usage: AI chatbots are getting more powerful and many students are now using them. I don't believe I have the power to completely stop students from using them, so instead I advise students to make sure any use of AI is actually helping you. It is unfortunately very possible for students to rely on AI to do work for them and rob themselves of a learning opportunity. Keep in mind that a lot of learning comes from the "productive struggle" of working on a problem that is somewhat difficult for you. Your brain develops during these

times. If a chatbot hands you the answers you may not be learning as much as you would otherwise.

Tutoring:

- (1) There is free, drop-in calculus tutoring available in the Polya Math Lab.
- (2) The College of Engineering offers free calculus tutoring through their thinkTANK program.
- (3) Finally, there is the Vandals Tutoring program, which is on the second floor of the library.