Description: This course is an introduction to differential and integral calculus, which is the mathematical language used in any science concerned with dynamically changing quantities. The main topics it covers are limits, derivatives, integrals, the Fundamental Theorem of Calculus, and some basic applications of these ideas.

Homework and WebAssign:

Homework: To access the homework **you will have to go through Husky CT**. In your account you will find a link to do your homework using WebAssign. There will be homework assignments for each section of the text. Each assignment will be made available on WebAssign several days before the section is covered in class. The due date for each assignment will be set by your instructor. **You will get five attempts for each question that is not multiple choice and fewer than five attempts for each multiple choice question; the exact number of attempts will depend on the number of choices.** After each attempt, you will be told whether your answer is correct or not. If you are not able to get the correct answer after your initial attempts, we recommend that you seek help from your instructor, the Q-Center, a tutor, or another student before attempting to answer the problem again.

Warning: When accessing your online homework, use **Firefox or Chrome as your browser**; there are problems that can occur if you use Internet Explorer or Safari.

Discussion and Worksheets

Discussion sections provide an opportunity to ask questions about content from lectures and WebAssign, and explore examples that provide different perspectives and more depth. There will be a worksheet corresponding to each section of the book that you will normally begin working on in discussion, then finish and turn in at the beginning of a later discussion section. You can access the worksheets at the **Learning Activities** tab at the top of this page. The worksheets are designed to reinforce and strengthen your knowledge and understanding, and provide practice with writing coherent, well-reasoned answers to questions. The majority of the grade for these worksheets will be based on completion of the exercises. You will also earn points based on the overall neatness and clarity of the work you provide and parts of exercises on each worksheet will be graded for correctness. Examples of the type of work we are looking for in the clarity score category are listed under learning activities.

The **due dates** for the worksheets are listed in the course outline. They are due is the first discussion of the week after they are covered in lecture. The worksheets are due **in discussion section** and should be completed before arriving in discussion on the due date. Write your name on each page of the solution and staple the pages together before submitting them to your TA.

Quizzes

- There will be a quiz each week in your discussion class. These quizzes will be for 15 minutes.
- The quiz in the first week is on precalculus. Each subsequent quiz will test students on material that was taught in the previous week.

- Quiz make-up policy: a student is allowed to make up a quiz only if there is personal/family/medical emergency with justification. Athletes who travel on behalf of the university must provide a letter/email from their athletic advisor in order to be allowed to take a make-up quiz.
  Opportunity to redo the quizzes
  In the first discussion section after each midterm, the students will have the option to resubmit solutions to the "block" of quizzes given before that midterm. Here are the guidelines on submission and grading of these quiz redos.
- In each quiz redo, a solution to every problem from that quiz block should be included, even those for which the student made no mistake.
- Each quiz redo will be graded for completeness only, so **providing solutions to all problems earns 100%**.
- A student who doesn't submit a quiz redo will still get a grade. It will be the average of quizzes in that block.

Exam information

There will be three midterm exams, all taken in discussion section and all will be **multiple choice.**

The final exam will be a mix of **multiple choice and free response questions.**

Grading

Homework (online)	WebAssign	8%
Quizzes (in discussion)	Discussion	20%
Worksheets (written)	Discussion	8%
Clicker responses	Lecture	4%
Exam 1: 2nd Discussion Meeting, Week 4	Discussion	12%
Exam 2: 2nd Discussion Meeting, Week 8	Discussion	12%

Exam 3: 2nd Discussion Meeting, Week 13	Discussion	12%
Final Exam	Common (2 hours)	24%

Makeup Policy: In general, you will not be allowed to make up any exam, quizzes, homework or worksheet. In circumstances where you have a medical, family or personal emergency which prevents you from submitting your work on time, a proof in the form of doctors' note excusing you from work (because of medical emergency), or an email from your parent (about family/personal emergency) will need to be provided. If you are an athlete who will miss class time, quizzes, homework, worksheets or exams, you will need to ask your athletic advisor to send an email to your instructor and TA stating the circumstances for the absence.

Dropped Assignments: Because we know that sometimes situations arise that cause students to have unexcused absences from class, at the end of the semester, we will automatically drop the lowest quiz grade, the lowest worksheet grade and the lowest three WebAssign grades. In addition, you are allowed 3 sick days from lecture, meaning that you can not participate in the clicker questions for up to three days without it affecting your grade. This is done automatically.

All Midterms

Midterm exams will take place during discussion sections. They are multiple choice. Students with accommodations for exams should contact CSD on time (7 business days) for the exam to be proctored in CSD.

Midterm Exam 1

Midterm Exam 1 is week 4. It covers 2.1-2.8. A practice exam will be available here. Solutions will be posted on Monday 2/5.

Date:

- Mihai Fulger's class: During discussion section on Wednesday 2/7.
- Katie Hall's class: During discussion section on Thursday 2/8.

Midterm Exam 2

Midterm Exam 2 is week 8. It covers 3.1-3.6, 3.8-3.10 and 4.8. A practice exam will be available here. Solutions will be posted on Monday 3/5.

Date:

- Mihai Fulger's class: During discussion section on Wednesday 3/7.
- Katie Hall's class: During discussion section on Thursday 3/8.

Midterm Exam 3

Midterm Exam 3 is week 13. It covers 4.1 4.4, 4.7, 4.9 and 5.1-5.3. A practice exam will be available here. Solutions will be posted on Monday 4/9.

Date:

- Mihai Fulger's class: During discussion section on Wednesday 4/11.
- Katie Hall's class: During discussion section on Thursday 4/12.

Final Exam

All students will take the final exam at the same time during the final exam week. The final exam is cumulative and will consist of both multiple choice and free response questions.

Week	Dates	Section	Topic	Assignments This Week
1	1/16-1/19			Administrative Information
		2.1	The Tangent and Velocity Problems	
		2.2	The Limit of a Function	
T/W Discussion				
W/Th Discussion				Quiz 1 on Algebra
2	1/22-1/26	2.3	Calculating Limits Using the Limit Laws	
		2.4	The Precise Definition of a Limit	
		2.5	Continuity	
T/W Discussion				Worksheets and WebAssign 2.1,2.2 Due
W/Th Discussion				Quiz 2 on 2.1 and 2.2
3	1/29-2/2	2.6	Limits at Infinity; Horizontal Asymptotes	
		2.7	Derivatives and Rates of Change	
		2.8	The Derivative as a Function	
T/W Discussion				Worksheets and WebAssign 2.3, 2.4 and 2.5 Due
W/Th Discussion				Quiz 3 on 2.3, 2.4 and 2.5
4	2/5-2/9	3.1	Derivatives of Polynomials and Exponential Functions	

3.2 The Product and Quotient Rules

T/W Discussion Worksheets and WebAssign 2.6, 2.7 and 2.8 Due

W/Th Discussion Midterm Exam 1 (2.1-2.8)

5 2/12-2/16 3.3 Derivatives of Trigonometric Functions

3.4 The Chain Rule

3.5 Implicit Differentiation

T/W Discussion Worksheets and WebAssign 3.1 and 3.2 Due

Redo Quiz 1 Due

W/Th Discussion Quiz 4 on 3.1 and 3.2

6 2/19-2/23 3.6 Derivatives of Logarithmic Functions

3.8 Exponential Growth and Decay

T/W Discussion Worksheets and WebAssign 3.3, 3.4 and 3.5 Due

W/Th Discussion Quiz 5 on 3.3, 3.4 and 3.5

7 2/26-3/2 3.9 Related Rates

3.10 Linear Approximations and Differentials

4.8 Newton's Method

T/W

Discussion

Worksheets and WebAssign 3.6 and 3.8 Due

W/Th Discusison Quiz 6 on 3.6 and 3.8

8 3/5-3/9 4.1 Maximum and Minimum Values

T/W Discussion Worksheets and WebAssign 3.9, 3.10 and 4.8

W/Th Discussion Midterm Exam 2 (3.1-3.6, 3.8-3.10 and 4.8)

9 3/12-3/16 No Class Spring Break

10 3/19-3/23 4.2 Mean Value Theorem

4.3 How Derivatives Affect the Shape of a Graph

4.4 Indeterminate Forms and l'Hospital's Rule

T/W Discussion Worksheets and WebAssign 4.1 Due

Redo Quiz 2 Due

W/Th Discussion Quiz 7 on 4.1

11 3/26-3/30 4.7 Optimization Problems

4.9 Antiderivatives

T/W Discussion Worksheets and WebAssign 4.2-4.4 Due

W/Th Discussion Quiz 8 on 4.2-4.4

12 4/2-4/6 5.1 Areas and Distances

5.2 The Definite Integral

5.3 The Fundamental Theorem of Calculus

T/W Discussion Worksheets and WebAssign 4.7 and 4.9 Due

W/Th Discussion Quiz 9 on 4.7 and 4.9

13 4/9-4/13 5.4 Indefinite Integrals and the Net Change Theorem

T/W Discussion Worksheets and WebAssign 5.1-5.3 Due

W/Th Discussion Midterm Exam 3 (4.1-4.4, 4.7, 4.9 and 5.1-5.3)

14 4/16-4/20 5.5 The Substitution Rule

6.1 Areas Between Curves

T/W Discussion Worksheets and WebAssign 5.4 Due

Redo Quiz 3 Due

W/Th Discussion Quiz 10 on 5.4

15 4/23-4/27 6.2 Volumes

Review

T/W Discussion Worksheets and WebAssign 5.5 and 6.1 Due

W/Th Discussion Quiz 11 on 5.5 and 6.1

WebAssign 6.2 Due (Worksheet 6.2 not due)

16 4/30-5/5 Finals Week