University of Connecticut

MATH 1131Q-W10 (Calculus I)
Summer Session I 2016
MWF 9:00 a.m.-12:50 p.m.   WTBY 218

Course Outline

Instructor: Robert Dolan
Office Hours: Office hours will be held immediately after the class meeting. Office hours are also available anytime before the class meeting on an appointment basis.
Email: robert.dolan@uconn.edu
Class Webpage: robert-dolan.grad.uconn.edu/teaching/calculus-1131q-summer-session-1

Course 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.

Text: The textbook for the course is *Calculus Early Transcendentals, Single Variable* by James Stewart (8th Edition), which is bundled with a *WebAssign* code for doing online homework.

Policies & Resources:
1. **Attendance**: You should attend all class meetings and are responsible for what we discuss. If you miss a class meeting, you should talk with a classmate to figure out what you missed, you should get any handouts/materials you missed from the HuskyCT site, and you should get caught up as soon as possible.
2. **Make-Up/Late Policy:** In fairness to everyone, there are generally **no** make-ups and **no** extensions for any form of evaluation/assessment (online homework assignments, written homework assignments, quizzes, individual assignments, group assignments, and exams). Only extreme situations with an officially documented excuse will allow you to make up an evaluation/assessment. Whenever possible, these excuses must be presented before the evaluation/assessment is due or is supposed to take place in class.
3. **Calculator Policy:** Graphing calculators (TI 82, 83, 84, 84 plus, 85 or 86) **can be used** on the exams. All CAS calculators, including models TI-89 and above (including TI-Nspire), **are not** permitted on the exams or quizzes.
4. **Academic Integrity:** Academic dishonesty is considered a serious offense at UConn. Students caught cheating shall be subject to the sanctions and other remedies described in The Student Code (http://community.uconn.edu/the-student-code-appendix-a/). Proactive strategies for students to minimize academic misconduct can be found at http://community.uconn.edu/proactive-strategies-for-students-to-minimize-academic-misconduct/. It is in your best interest to maintain your academic integrity.
5. **Accommodations for Students with Disabilities:** Students who think that they may need accommodations because of a disability are encouraged to meet with me privately early in the semester. Students should also contact the Center for Students with Disabilities as soon as possible to verify their eligibility for reasonable accommodations. For more information, please go to the website http://www.csd.uconn.edu/.

Grading:

			Grade	Percentage	Grade	Percentage
WebAssign Homework (online)	12.5%		A	93-100	C	73-76
Written Assignments (in class)	12.5%		A-	90-92	C-	70-72
Quizzes (in class)	5%		B+	87-89	D+	67-69
Exam 1	20%		B	83-86	D	63-66
Exam 2	20%		B-	80-82	D-	60-62
Final Exam	30%		C+	77-79	F	59 & below

- **WebAssign Homework:** Most weeks you will be given WebAssign homework to complete for each section listed below. The **WebAssign due dates** are **listed online** and **on the outline below**. WebAssign homework will always be **due at 11:59 PM.**
    - Each section there is also an assignment on WebAssign named "Section ___ Extra Problems." These assignments are **not** graded and will **not** count towards your course average. They are solely there for you to use if you would like more problems to help you understand a certain section and/or prepare for an exam. Just like with the homework, you will be able to access the solutions after the due date.

- **Written Assignments:** Most weeks you will receive a written assignment that will complement the WebAssign homework. On most written assignments there will be one problem that requires deeper thinking. The written assignments will be graded on 80% completion and 20% correctness. For the 20% correctness I will randomly pick one or two questions and grade them. The solutions to the corrected problems will be made available online on my course website.
    - Due to the limited number of classes during the summer session, **all written assignments will be submitted via HuskyCT**. **Please either scan or upload a clear image of your solutions to the assignment on HuskyCT.** This will allow you to keep your worksheets to study from as well as get your corrected assignments back before the exams.

- **Quizzes:** There will be short quizzes given on the dates listed below. Each quiz will be based on recent lectures and homework assignments. These quizzes should **not** be stressful and are mainly to help you (and me) figure out what you need to work on and study for the exam.

- **Exam 1:** Friday, June 10
- **Exam 2:** Wednesday, June 22
- **Final Exam:** Friday, July 1

Tentative Outline

Date	Section	Topic	WebAssign Due Date
6/1	2.1	The Tangent and Velocity Problems	
	2.2	The Limit of a Function	6/6
	2.3	Calculating Limits Using the Limit Laws	
6/3	2.4	The Precise Definition of a Limit	
	2.5	Continuity	6/6
	2.6	Limits at Infinity: Horizontal Asymptotes	
	2.7	Derivatives and Rates of Change	
6/6	2.8	The Derivative as a Function	
	3.1	Derivatives Of polynomials and Exponential Functions	6/10
	3.2	The Product and Quotient Rules	
6/8	3.3	Derivatives of Trigonometric Functions	6/13
	3.4	The Chain Rule	
		Exam 1 Review	
6/10		**Exam 1**	
6/13	3.5	Implicit Differentiation	
	1.5	Inverse Functions and Logarithms	6/16
	3.6	Derivatives of Logarithmic Functions	
	3.7	Rates of Change in the Natural Sciences	
6/15	3.8	Exponential Growth and Decay	
	3.9	Related Rates	6/20
	3.10	Linear Approximations	
6/17	4.1	Maximum and Minimum Values	
	4.2	Mean Value Theorem	6/20
	4.3	How Derivatives Affect the Shape of a Graph	
6/20	4.4	Indeterminate Forms and L'Hospital's Rule	6/23
	4.7	Optimization Problems	
		Exam 2 Review	
6/22		**Exam 2**	
6/24	4.9	Antiderivatives	
	5.1	Areas and Distances	6/27
	5.2	The Definite Integral	
6/27	5.3	The Fundamental Theorem of Calculus	
	5.4	Indefinite Integrals and the Net Change Theorem	6/30
	5.5	The Substitution Rule	
6/29	6.1	Areas Between Curves	6/30
	6.2	Volumes	
		Final Exam Review	
7/1		**Final Exam**	

DUE DATES (JUNE 2016)
(Any changes will be announced in class and the calendar online will be updated)

SUN	MON	TUE	WED	THU	FRI	SAT
			01 First Class Worksheet 1 In Class	02	03	04
05 Worksheet 2 Due 3PM	06 Quiz 1 (2.1-2.7) WA 2.1-2.7 Due 11:59PM	07	08 Worksheet 3 Due 3PM	09 WA 2.8-3.2 Due 11:59PM	10 Exam 1	11
12	13 WA 3.3-3.4 Due 11:59PM	14	15 Worksheet 4 Due 3PM	16 WA 1.5,3.5-3.7 Due 11:59PM	17 Quiz 2 (3.3-3.10)	18
19 Worksheet 5 Due 3PM	20 WA 3.8-4.3 Due 11:59PM	21	22 Exam 2	23 WA 4.4, 4.7 Due 11:59PM	24	25
26	27 Worksheet 6 Due 3PM WA 4.9-5.2 Due 11:59PM	28	29	30 WA 5.3-6.2 Due 11:59PM	01 Final Exam	