Math 2144, Calculus I, Syllabus

Section 701: 8:30 MTWF, Old Central 103

Instructor: Dr. Jim Choike, Professor of Mathematics
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Office Hours: By appointment

Prerequisites: High School Algebra I, Geometry, Algebra II, and Trigonometry
Also, refer to *Mathematical Background for Calculus* handout

Textbooks: *Calculus: Early Transcendentals* 6e by James Stewart

Cell Phones: Cell phones MUST be turned off and OUT-OF-VIEW during class. Cell phones cannot be used during class for any purpose; this includes, but is not restricted to, making or receiving phone calls, making or receiving text messages, taking photographs during class, or using a cell phone for calculations.

Exams: There will be three one-hour in-class exams given on the following (tentative) dates:

Exam I   Monday, September 20; Chapters 1, 2, and 3.1
Exam II   Friday, October 22; Chapters 3 and 4.1 and 4.2
Exam III   Friday, November 19; Chapters 4 and 5

Comprehensive Final Exam
The Final Exam will be a comprehensive exam over all material covered in the course. The Final Exam will be a 100-point Exam.

Final Exam:
Date: Wednesday, December 15, 2010 **Time**: 8:00 - 9:50 AM   **Place**: Old Central 103

THERE WILL BE NO MAKE-UP EXAMS.

WebAssign Problems: Homework
The WebAssign system is an online resource for problems related to the sections in the text that this course will cover. For information about WebAssign, you can go to this link http://www.math.okstate.edu/webassign to obtain self-enrollment information and information about using WebAssign to submit answers.

This course will use WebAssign for submitting homework assignments. Each homework assignment will have a different point value. The homework score will be computed as a percentage of the total points possible for the homework assignment. This percentage will be entered as a truncated two-digit number. This number will be the final score for that homework. The semester homework grade will be the average of the homework final scores, after the lowest three scores have been dropped. This homework score will be called H.

WebAssign Class Key

The class key for Math 2144, Section 701 in WebAssign, our online homework system, is:

okstate 5797 7807.

Students should set up their account and self-enroll for access to our section during the first week of class at https://www.webassign.net/login.html.

In-Class Written Quizzes

There will be unannounced weekly quizzes over the homework problems assigned, from the text and from the WebAssign online system, and the material covered in class. At a minimum 12 - 15 quizzes will be given, each worth a maximum of 10 points. The ten highest scores will be used as the Quiz Score called Q.

THERE WILL BE NO MAKE-UP QUIZZES.

Final Grade for the Course

The final grade will be based on the semester score S and the final exam score F. The semester score S will be a weighted average of the average of the three Exam scores and the average of the Quiz score Q plus the Homework score H. Thus, if $E = \dfrac{E_1 + E_2 + E_3}{3}$ and $W = \dfrac{Q + H}{2}$, then the semester score S will be computed as follows: $S = \dfrac{3}{4}E + \dfrac{1}{4}W$. The score on the final exam will be denoted F. The grade for the course will be based on the number $G = \max\left(\dfrac{S + F}{2}, \dfrac{3S + F}{4}\right)$.

The final letter grade will be determined according to the grading scale:

Grading Scale	
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D

MLRC

The MLRC (Mathematics Learning Resource Center) is located on the 4th Floor of the Classroom Building, Room 420 CLB. The MLRC is a place where students can receive tutoring in Calculus I, use microcomputers to solve problems, and review topics of algebra, trig, and calculus using video tapes. The MLRC hours are:

MTTh: 12 NOON to 10:00 PM
W: 12:00 NOON to 6:00 PM
F: 12 NOON to 5:00 PM.

Important Dates

Monday, August 23: Class work begins
Monday, August 30: Last day to drop a course with no grade and no fees
Friday, September 3: Last day to drop a course with 50% fees and grade of "W"
Friday, November 12: Last day to drop or withdraw with an automatic grade of "W"
Friday, December 3: Last day to drop from a course with an assigned grade of "W" or "F."
Pre-Finals Week: December 6-10, 2010
Finals Week: December 13-17, 2010

MATH 2144 Calculus I Syllabus

Textbook: *Calculus* Early Transcendentals 6e by James Stewart.

8/23	M	Pre-calculus Review: Sect. 1.2, 1.3, 1.5, and 1.6
8/24	T	Introducing Calculus
8/25	W	Sect. 2.1: The Tangent and Velocity Problems
8/27	F	Sect. 2.1: Continued
8/30	M	Sect. 2.2: The Limit of Function
8/31	T	Sect. 2.2: Continued
9/1	W	Sect. 2.3: Calculating Limits Using the Limit Laws
9/3	F	Sect. 2.5: Continuity
9/6	M	**Labor Day**
9/7	T	Sect. 2.6: Infinite Limits
9/8	W	Sect. 2.6: Continued
9/10	F	Sect. 2.7: Derivatives and Rates of Change
9/13	M	Sect. 2.7: Continued
9/14	T	Sect. 2.8: The Derivative as a Function
9/15	W	Sect. 3.1: Differentiation: Polynomials and Exponentials
9/17	F	**Review for Exam I**
9/20	M	**Exam 1: Chapters 1, 2, and 3.1**
9/21	T	Sect. 3.2: Product and Quotient Rules
9/22	W	Sect. 3.2: Continued
9/24	F	Sect. 3.3: Derivatives of Trigonometric Functions
9/27	M	Sect. 3.4: The Chain Rule
9/28	T	Sect. 3.4: Continued
9/29	W	Sect. 3.5: Implicit Differentiation
10/1	T	Sect. 3.5: Continued
10/4	M	Sect. 3.6: Derivatives of Logs
10/5	T	Sect. 3.6: Continued
10/6	W	Sect. 3.8: Exponential Growth and Decay
10/8	F	Sect. 3.8: Continued
10/11	M	Sect. 3.9: Related Rates
10/12	T	Sect. 3.9: Continued
10/13	W	Sect. 3.10: Linear Approximations and Differentials
10/15	F	**Fall Break Day**

10/18	M	Sect. 4.1: Maximum and Minimum Values
10/19	T	Sect. 4.2: The Mean Value Theorem
10/20	W	Review for Exam 2
10/22	F	**Exam 2: Chapters 3 and 4.1, 4.2**
10/25	M	Sect. 4.3: How Derivatives Affect the Shape of a Graph
10/26	T	Sect. 4.3: Continued
10/27	W	Sect. 4.4: L'Hopital's Rule
10/29	F	Sect. 4.4: Continued
11/1	M	Sect. 4.7: Optimization Problems
11/2	T	Sect. 4.7: Continued
11/3	W	Sect. 4.9: Antiderivatives
11/5	F	Sect. 5.1: Areas and Distances
11/8	M	Sect. 5.1: Continued
11/9	T	Sect. 5.2: The Definite Integral
11/10	W	Sect. 5.2: Continued
11/11	F	Sect. 5.3: The Fundamental Theorem of Calculus
11/15	M	Sect. 5.3: Continued
11/16	T	Sect. 5.4: Indefinite Integrals and Net Change Theorem
11/17	W	Sect. 5.4: Continued
11/19	F	**Exam 3: Chapters 4.3,4,7,9; 5.1-4**
11/22	M	Sect. 5.5: The Substitution Rule
11/23	T	Sect. 6.1: Areas between Curves
11/24	W	**Thanksgiving Break**
11/26	F	**Thanksgiving Break**
11/29	M	Sect. 6.1: Continued
11/30	T	Sect. 6.2: Volumes
12/1	W	Sect. 6.3: Volumes by Cylindrical Shells
12/3	F	Sect. 6.3: Continued
PRE-FINALS WEEK		
12/6	M	Sect. 6.5: Average Value of a Function
12/7	T	Sect. 7.7: Approximate Integration
12/8	W	**Review for Final Exam**
12/10	F	**Review for Final Exam**

FINAL EXAM WEEK: 12/13 - 12/17

Homework Assignments for Calculus I
Math 2144.701, Fall 2010
From: *Calculus: Early Transcendentals* 6e by James Stewart

Chapter 2		Chapter 4	
Section 2.1:	1, 3, 5, 7	Section 4.1:	3, 5, 7, 11, 15, 17, 21, 23, 25, 29, 31, 33, 37, 39, 43, 49, 51
Section 2.2:	2, 3, 5, 7, 9, 13, 15, 19, 27		
Section 2.3:	1, 2, 7, 11, 13, 15, 21, 25		
Section 2.5:	3, 15, 17, 19, 23, 25, 29, 35, 37, 41	Section 4.2:	3, 5, 7, 11, 13, 17, 23
		Section 4.3:	1, 5, 7, 9, 11, 13, 15, 17, 19, 31, 35, 39, 41
Section 2.6:	3, 9, 11, 15, 19, 21, 23, 24, 25, 28	Section 4.4:	5, 11, 13, 15, 19, 21, 25, 37, 49, 53, 55
Section 2.7:	3, 5, 7, 11, 13, 16, 17, 43	Section 4.7:	1, 2, 5, 7, 8, 9, 11, 14, 15, 21, 30, 33
Section 2.8:	1, 3, 5, 10, 13, 19, 21, 27		
		Section 4.9:	1, 3, 5, 9, 11, 19, 21, 23, 25, 31, 37, 39, 53, 57
Chapter 3			
Section 3.1:	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 33, 39, 41		
Section 3.2:	1, 3, 5, 7, 11, 15, 17, 21, 27, 29	**Chapter 5**	
		Section 5.1:	1, 2, 3, 5, 11, 13, 17
Section 3.3:	1, 3, 5, 7, 9, 13, 17, 19, 25, 29, 31	Section 5.2:	1, 3, 5, 7, 9, 11, 17, 19, 29, 33, 35, 37, 39
Section 3.4:	1, 3, 5, 7, 9, 11, 13, 15, 17, 22, 25, 39, 41, 53, 55	Section 5.3:	3, 5, 7, 9, 11, 13, 15, 19, 21, 23, 25, 27, 29, 35
Section 3.5:	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 27, 29, 36	Section 5.4:	5, 7, 9, 11, 15, 17, 23, 29, 31, 33, 35, 43
Section 3.6:	3, 5, 7, 9, 11, 13, 15, 17, 23, 37, 43	Section 5.5:	1, 3, 5, 7, 9, 11, 19, 21, 23, 27, 31, 41, 43
Section 3.8:	1, 3, 5, 7, 9, 13, 15		
Section 3.9:	1, 3, 5, 7, 9, 11, 13, 18, 23	**Chapter 6**	
Section 3.10:	5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 33	Section 6.1:	1, 2, 3, 4, 5, 7, 11, 15, 21, 22, 23, 42
		Section 6.2:	1, 3, 5, 7, 9, 11, 17, 19, 21, 23, 31, 33
		Section 6.3:	3, 5, 7, 9, 11, 13, 15, 17
		Section 6.5:	1, 3, 5, 7, 9, 11, 17, 19
		Section 7.7:	1, 3, 7, 9, 11, 13, 15, 19