

Math 211 – Calculus I – Spring 2008

- ❖ **Instructor:** William T. Ross, Jepson Hall - Room 215, 289 – 8090
- ❖ **Text:** *Calculus: Concepts and Contexts*, 3rd edition, Stewart.
- ❖ **Homework:** Assignments will be collected and graded every day. Students are allowed to consult with each other as long as everybody does their share. **Students must submit their assignments by 5:00 PM the day it is due. Late assignments cannot be accepted.**
- ❖ **Examinations:** There will be three in-class examinations and a comprehensive final. The examinations will be given on the following dates:
 - Exam 1: 2/8
 - Exam 2: 3/17
 - Exam 3: 4/18
 - Final Exam: 5/3 (7 PM – 10 PM)**There are no make-up exams. If you are unable to take an exam when it is offered, your final exam will be worth 15% more for each exam missed.**
- ❖ **Attendance:** Students are required to attend **all** lectures.
- ❖ **Grading policy:** Exam 1: 15%, Exam 2: 15%, Exam 3: 15%, Written assignments: 25%, Final exam: 30%. As far as letter grades, I grade on the normal 10 point scale: A+ = 99 – 100, A = 90 – 98, A- = 89, B+ = 85 – 88, B = 80 – 84, B- = 79, C+ = 75 – 78, C = 70 – 74, C- = 65 – 69, D = 50 – 64, F = < 50.
- ❖ **Topics:** This course will cover the basic concepts in the differential calculus such as functions, limits, continuity, derivatives, and integrals.
- ❖ **Symbolic reasoning field of study statement** Math 211 is an introduction of calculus, the mathematical language of change. Calculus is used to model phenomena in a surprisingly wide variety of applications in such areas as the physical sciences, economics, epidemiology, and personal finance. Students in Math 211 will be expected to develop skills in formulating problems, solving them, and communicating their solutions to others (usually in written form). Successful formulation of a problem often requires that the student recognize how the basic concepts of calculus are involved in the problem at hand, and be able to translate the problem into appropriate symbolic form. This process of formulation and solution helps students to develop analytical skills applicable in a wide variety of situations. Some problems are designed to have students construct and analyze mathematical models of real world phenomena, while other problems help students make conceptual leaps from specific examples to general principles. The main concepts of the course are the derivative and the integral, both of which require the underlying notion of limits. These ideas are amenable to both geometric and analytic interpretation, and both points of view will be stressed. Indeed, this course will emphasize the importance of being able to move easily back and forth between these points of view. Students will be expected to develop some proficiency with techniques for evaluating derivatives and integrals, but only to provide the framework needed for solving problems.
- ❖ **Academic honesty:** Students are to abide by the official university policy on academic honesty. Each student will be required to sign their exam papers, thereby signifying their compliance with the university honor pledge.

❖ Schedule:

M 1/14 – 1.1 – p. 23 # 19, 20, 21, 24, 25, 27 – 30, 45, 61, 62

W 1/16 – 1.2 – p. 35 # 5, 6, 9, 11, 13, 14, 15, 17, 18

F 1/18 – 1.3 – p. 45 # 3, 4, 6, 7, 10, 11, 16, 38, 50, 51

M 1/21 – 1.5 – p. 61 # 7- 12, 15 - 18, 24 - 27

W 1/23 – 1.6 – p. 72 # 3 – 8, 15 - 19, 21 – 26, 47 - 50

F 1/25 – 1.6 p. 72 # 51, 52, 57 - 59

M 1/28 – 2.1, 2.2 – p. 97 # 2, 3, 5; p. 106 # 1, 2, 4 – 9, 13, 17, 18

W 1/30 – 2.3 – p. 115 # 1, 2 - 7, 9- 21 (odd), 25 - 30

F 2/1 – 2.4 – p. 126 # 4, 9 - 16, 23 - 27, 37 - 40

M 2/4 – 2.5 – p. 137 # 4 - 9, 15 – 33 (odd), 37, 38, 45

W 2/6 – Review for Exam 1

F 2/8 – **Exam 1**

M 2/11 – 2.6 – p. 145 # 3, 4, 5, 8, 9, 13, 15, 19, 24

W 2/13 – 2.7, 2.8 – p. 153 # 19 – 24, 35 – 36; p. 165 # 3, 4 – 11, 21, 22, 31 – 34, 37 - 40

F 2/15 – 2.9 – p. 172 # 15 – 17, 23 - 28

M 2/18 – 3.1 – p. 190 # 3 - 28, 39, 41 - 47, 56, 57

W 2/20 – 3.2 – p. 198 # 3 - 22, 31- 36

F 2/22 – 3.3 – p. 210 # 1 - 8

M 2/25 – 3.4 – p. 218 # 1 - 12, 17, 18, 26 - 30

W 2/27 – 3.5 – p. 228 # 1 - 36, 41 - 45

F 2/29 – 3.6 – p. 238 # 1, 3, 4, 7, 10, 14, 17

M 3/3 – 3.7 – p. 245 # 1 - 18, 23, 24, 31 - 36

W 3/5 – 3.8 – p. 252 # 2 - 8, 11 - 14

F 3/7 – Review for Exam 2

M 3/10 – Spring Break

W 3/12 – Spring Break

F 3/14 – Spring Break

M 3/17 – **Exam 2**

W 3/19 – 4.2 – p. 275 # 1, 2, 3, 6, 7, 10, 22, 25, 26, 32, 33, 36, 38, 39, 55

F 3/21 – 4.3 – p. 286 # 7 – 14

M 3/24 – 4.5 – p. 303 # 5 – 25 (odd)

W 3/26 – 4.5 – p. 305 # 63 - 65

F 3/28 – 4.6 – p. 311 # 2, 3, 7, 8 - 12, 21

M 3/31 – 4.6

W 4/2 – 4.8 – p. 326 # 5, 6, 11, 12, 27

F 4/4 – 4.9 – p. 332 # 1 – 27 (odd)

M 4/7 – 5.1 – p. 352 # 1, 2, 4, 5, 7, 9, 11, 14

W 4/9 – 5.2 – p. 364 # 1, 4, 6, 7, 14, 18, 19, 29, 34, 37, 43

F 4/11 – 5.3 – p. 374 # 3, 4, 10, 11, 14, 15, 24, 27, 37, 45, 46, 57

M 4/14 – 5.4 – p. 383 # 1, 2, 5, 8, 9, 22

W 4/16 – Review for Exam 3

F 4/18 – **Exam 3**

M 4/21 – Review for Final

W 4/23 – Review for Final

F 4/25 – **Last day of class**

S 5/3 – 7 PM – 10 PM - Final exam - Comprehensive