Math171, Calculus I, Spring 2008

Section 3, 11:30AM-12:30PM, MTuWF, Swart 326

Section 4, 12:40-1:40 PM, MTuWF Swart 326

Instructor: Dr. G. Bullington, Office: Swart 121, bullingt@uwosh.edu, 424-7351

Office hours: 1:40-2:40 Monday, Tuesday, 10:30-11:30 Friday or by appointment.

Tutors are available in Swart 113.

Textbook: *Calculus Concepts and Contexts*, 3rd edition, by James Stewart.

The development of (differential) calculus marked a philosophical shift in the way that rates of change were understood. As a consequence, the world can be viewed as a construct with calculus being one of its fundamental principles. Even though only a few essential concepts are necessary to "define" differential calculus (e.g., limits, difference quotients), the ramifications compile a vast field of study and a powerful form of rhetoric applicable to all sciences. This course involves a thorough study of the essential concepts as well as a survey of an array of implications and applications that build on students' mathematical prerequisites.

Prerequisites: The course 67-108, or 67-104 and 67-106 (with a grade of C or above) or four years of college preparatory mathematics and a satisfactory score on a placement examination.

You are expected to have a working knowledge of algebra and trigonometry (polynomial, rational, exponential, logarithmic, piecewise, trigonometric and inverse trigonometric functions). ***Students should absolutely know the values of trigonometric functions at 0, pi/6, pi/4, pi/3, pi/2, and their multiples.*** *Regarding functions, students should be familiar with their properties, algebra, graphs and language (domain and range, odd and even, periodic, symmetry, zeros, intercepts, and so on). Review all this independently.*

From the text: We will work from sections 1.1-1.3, 1.5-1.7, 2.1-2.9, 3.1-3.8, 4.1-4.3, and 4.5-4.9, 5.1 and 5.2.

Graphing Calculator (required): The TI-83+ and TI_84 are the ones that I will use and will refer to in class, so I recommend it. (Other TI models such as the TI-85 or TI-86 may suffice if you know how to use them, but I may not be able to help you.) No mobile phones, laptops, or calculators with greater algebraic capabilities (such as the TI-89 and TI-92) are to be used during exams and quizzes.

If you need a calculator temporarily (for tests, quizzes, etc), you may borrow one from the UW-O Math department (Swart 115) with a Titan card.

Grading: There will be four one-hour exams, a comprehensive final exam, and several quizzes, and in-class activities.

Quizzes and assignments	20%
3 Exams	20% each
Final	20%

[90-100% is an A, 80-89% is a B, 70-79% is a C, 60-69% a D, and 0-59% an F.]
Intermediate grades (e.g., AB) will be assigned when a student is sufficiently close to the cutoff for the next highest grade. *There will be no make-up for any form of assessment. Contact the instructor beforehand in the event of extenuating circumstances.*

Homework Review/Extra Credit: Attempt all assigned homework before the next meeting and note problems that you cannot solve. Before class begins on the next meeting, write the problem number(s) on the board, leaving space below it. (If a problem number is already there, put a check mark by it.) Another student is welcome to give a solution along with their initials. Students receive one extra point on the next test for every five correct solutions they provide.

Feedback on your performance in the course will come in two forms. There will be the qualitative (written) feedback on your assignments that make specific comments about your work. There will also be quantitative (numerical) feedback from the grade you receive. Be sure to use feedback to target areas where you need improvement.

On tests, quizzes and your final grade: A→Excellent
B→Above average
C→Average
D→Below average
F→Poor

Exam Dates:

- Quizzes dates are as follows: Feb. 8 (F), Feb. 22 (F), Mar. 7 (F), Mar. 14 (F), Mar. 21 (F), Apr. 3 (F) , Apr. 18 (F) , Apr. 25 (F) , May 2 (F)
- Exam 1: Feb. 29 (F)
- Exam 2: Apr. 11 (F) in Testing Center (Polk basement)
- Exam 3: May 9 (F)
- Final: May 16 (F)

Last Day To Withdraw Without Late Add/Drop Request Form: 3-19-08
Spring Break: March 23-30, 2008

Academic Integrity at UW-Oshkosh: Students are encouraged to review the procedures related to violations of academic honesty as outlined in Chapter UWS 14. The student discipline code can be viewed on the web at http://www.uwosh.edu/dean/studentdisciplinecode.html.

Math 171 Tentative Schedule: (updated 1/19/08)

Week	Topics	Homework Assignment
1 Sept. 6-8	1.1,1.2,1.3 Quiz	Section 1.1: #2,4,7,8,10,17,19,22,28,36,39,41,56,60,67/Page 22 Section 1.2: #2,3,4,8,12,15,18,19,22,23,25/Page 36 Section 1.3: #1(aceg),2(abde),3,4(ab),5,7,10,11,21,32,38,41,51/Page 45
2 Sept. 11-15	1.5, 1.6,1.7	Section 1.5: #1,4,11,13,17,18,22,25,26,30/Page 61 Section 1.6: #3,8,10,13,15,18,20,21,24,26,29,31,32,35,36,50/Page 72 Section 1.7 #4,5,6,12,13,17,18,20,32,33,39,40(ac),42/Page 79
3 Sept. 18-22	2.1, 2.2, 2.3 Quiz	Section 2.1: #2,4,5,7,9/Page 97 Section 2.2: #1,2,4,6,8,9,10,22,25,28/Page 106 Section 2.3: #1(bcfg),2(abe),5,8,9,10,15,16,17,20,26,32,36,43,44/Page 115
4 Sept. 25-29	Appendix D, 2.4 **Test 1**	Appendix D: #1,2,3,7,9,10/Page A38 Section 2.4: #1,2,4,6,8,14,16,18,26,32,34,36,41/Page 126
5 Oct. 2-6	2.5,2.6,2.7 Quiz	Section 2.5: #1,4,5,6,8,14,23,25,27,30,33,35,39,40,45,47/Page 137 Section 2.6: #1,2,3,4,5,10,14,15,17,19,22,24(ab)/Page 145 Section 2.7: #1,2,3,4,5,6,10,12,17,19,25,28,29,30,31/Page 153
6 Oct. 9-13	2.8,2.9,3.1 Quiz	Section 2.8: #1,3,4,8,9,11,12,19,23,31,32,38,39,43/Page 167 Section 2.9: #1,2,4,5,6,8,12(abcd),17,20,27/Page 178 Section 3.1: #1,2,11,16,21,22,23,26,28,30,38,42,58,63/Page 190
7 Oct. 16-20	3.2, 3.3, 3.4 Quiz	Section 3.2: #1,2,4,7,8,10,13,16,22,24,32,35,38,40,41,45/Page 198 Section 3.3: #1,2,4,7,15,18,24,25,27,29,33 /Page 210 Section 3.4: #2,7,10,14,15,18,20,27,31,32,39,41,42,43/Page 218
8 Spring Break		
9 Oct. 23-27	3.5,3.6, 3.7 Quiz	Section 3.5: #3,6,7,16,17,19,21,29,31,35,41,44,45,46,48,57,59,79/Page 228 Section 3.6: #1,4,8,16,20,29,30,36,41,45,54/Page 238 Section 3.7: #1,2,7,8,10,20,35,36,39,41/Page 245
10 Oct. 30-Nov. 3	3.8, 4.1 **Test 2**	Section 3.8: #1,4,5,8,11,14,21,27,31/Page 252 Section 4.1: #1,2,4,7,9,10,12,16,18,23,27,29,31/Page 267
11 Nov. 6-10	4.2, 4.3, 4.5 Quiz	Section 4.2: #1,2,3,6,7,9,11,30,36,39,52,55,56,58/Page 274 Section 4.3: #1,2,3,4,5,6,7,12,20,24,27,30,32,34,49/Page 286 Section 4.5: #1,4,7,9,14,20,26,33,37,43,58/Page 303
12 Nov. 13-17	4.6, 4.9, 4.7 Quiz	Section 4.6: #4,7,8,9,11,16,19,22,23,25,38/Page 312 Section 4.9: #4,6,8,10,11,17,18,22,28,29,31,32,34,37,38,41/Page 332 Section 4.7: #1,3,4,5,7,10,15,16,18 /Page 320
13 Nov. 20-21	4.8, 5.1, 5.2 Quiz	Section 4.8: #1,3,4,6,11,13,18,22,23,24,25,32/Page 325 Section 5.1 #1,2,3,8,13,14,15,17,19,20 Section 5.2 #1,6,9,16,20,23,32,34,35,41,42,43,50,51
14 Nov. 27-Dec. 1	**Test 3**	Problem Solving
15 Dec. 4-8	Final	