

**PRELIM – MATH 211 (B100), Fall 2008 – PRELIM**

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**Office Hours:** MWF 10.15 – 11.15

Course web-pages: <http://www.math.niu.edu/~krishtal/MA211F08/syl211.pdf>

[http://www.math.niu.edu/courses/math211/current/syllabus\\_TR.html](http://www.math.niu.edu/courses/math211/current/syllabus_TR.html)

**Calculus for Business and Social Science.** An elementary treatment of topics from differential and integral calculus, with applications in social science and business. Except with departmental approval students may not receive credit for both MATH 211 and MATH 229.

**PREREQUISITE:** MATH 110 or satisfactory performance on the Mathematics Placement Test.

**TEXT:** *Calculus and its Applications, 9th Edition*, by Marvin L. Bittinger and David J. Ellenbogen, Sections 1.1-1.8, 2.1-2.5, 3.1-3.4, 4.1-4.5

**FINAL EXAMINATION:** The departmental final exam (listed under mass exams in the schedule of classes) will be given on **Friday, December 12, 2008, 8:00 - 9:50 am. Time and Room number will be available in November.**

**Only basic scientific calculators will be allowed on the exams!**

**COURSE OBJECTIVES:** The course will introduce the central ideas of calculus: the instantaneous rate of growth of a function, and the average value of a function over an interval. The course will show how these concepts can be applied to solve problems in a variety of areas, including business, economics, biology, and sociology. The course will include problems on exponential growth and decay.

**ATTENDANCE:** Attendance matters. You are required to attend recitation sessions. Three unexcused absences will lower your overall grade by a letter. For example, students who would otherwise receive an **A** will get a **B** if they miss 3 classes and **C** if they miss 6. Attendance at lectures will not be taken; however, students missing lectures may receive 0 credit if a pop-up quiz is administered at that lecture. Extra credit opportunities would also be given only to those present.

**GRADING:** Grades will be based on 3 one-hour tests (300 points), quizzes and homework (100 points), and a comprehensive departmental final exam (200 points). Poor attendance may lower your grade (see above).

*Makeup tests will be allowed only if the student has made arrangements with the instructor **before** the scheduled time of the test.*

**WITHDRAWAL:** The last day for undergraduates to withdraw from Math 211 is Friday, TBA, 2008.

**RULES:** I urge you to exercise respect towards your peers and instructor and refrain from any activities in class which would impede the learning process. Those include (but are not limited to) using cell phones and similar electronic devices, eating, drinking, bringing kids and pets in class, etc. If you absolutely need to have your cell phone on, please, leave it on VIBE, otherwise keep it off. Destructive behavior will not be tolerated.

## TENTATIVE SCHEDULE OF LECTURES:

Week of	MONDAY	WEDNESDAY	FRIDAY
8/25	1.1	1.1	1.2
9/1	Labor Day	1.3/1.4	1.5
9/8	1.6	1.6	1.7
9/15	1.7	1.8	EXAM 1
9/22	2.1	2.1	2.2
9/29	2.2	2.3	2.3/2.4
10/6	2.4	2.5	2.5
10/13	2.6	###	EXAM 2
10/20	3.1	3.1/3.2	3.2
10/27	3.3	3.3/3.4	3.4
11/3	4.1	4.1/4.2	4.2
11/10	4.3	4.3	EXAM 3
11/17	4.4	4.4	4.5
11/24	4.5	THANKSGIVING HOLIDAY	
12/1	REVIEW	REVIEW	REVIEW

FINAL EXAM                      FRIDAY, December 12, 2008, 8-9:50 A.M.

### These days may be used as catch-up days or review days, as determined by the instructor.

**HOMEWORK PROBLEMS:** These problems have been chosen to represent the various skills that students need to develop. Knowing how to solve all of these problems should guarantee success in the course. On the other hand, this list is just the minimum that is required, and there are supplementary exercises at the end of each chapter.

1.1	110	11-14, 19, 21, 27, 29, 30, 46, 57, 58.
1.2	121	9-20, 22, 24, 32, 33, 44, 50, 51, 52, 53, 55.
1.3	130	1, 7, 29, 33, 34, 40, 41, 49, 52.
1.4	145	2, 5, 7, 11, 15, 17, 19, 21, 35-40.
1.5	156	1-5, 9-11, 21, 22, 25, 27, 33, 35, 37, 45, 51, 52, 53, 55, 76, 77, 79, 81, 82, 84, 87, 94, 95
1.6	165	1, 3, 5, 7, 9, 11, 14, 16, 18, 20, 21, 24, 27, 29, 97, 101, 103, 110.
1.7	174	5, 6, 9, 12, 14, 16, 17, 22, 26, 27, 30, 32, 39, 41, 45, 46, 47.
1.8	181	1-5, 13-17, 25-30, 45, 46, 49, 50.

### EXAM 1

2.1	211	1, 7, 8, 11, 12, 15, 17, 20, 29, 69-72, 79.
2.2	228	9, 12, 13, 14, 16, 19, 21, 25, 27, 47, 48, 49.
2.3	243	1-10, 11-19, 23, 25.
2.4	254	7, 9, 13, 16, 20, 27, 33, 34, 49, 55, 97, 98.
2.5	270	1, 5, 13, 14, 16, 17, 19, 21, 25, 26, 29, 30, 32, 36, 37, 45, 46
2.6	280	2, 3, 4, 5, 6, 7, 8 (only the definitions of Marginal Cost, Profit and Revenue).

### EXAM 2

3.1	315	11, 13, 15, 17, 23, 35, 37, 39, 45, 53.
3.2	332	1-5, 9-14, 17-19, 23, 27, 28, 44, 45, 48, 50, 73, 74, 78.
3.3	347	7, 8, 10, 13, 16, 17, 19, 22, 32, 33, 34.
3.4	360	1, 2, 9, 10, 11, 16, 30, 31, 34.
4.1	398	5, 6, 7, 8, 9, 10, 25.
4.2	409	1-34, 39, 40, 43, 44, 47, 49, 51, 55.
4.3	421	4, 9, 10, 27, 30, 37, 43-50, 59, 60, 61, 73, 74, 75, 85, 86.

### EXAM 3

4.4	433	1, 3, 7, 12, 14, 15, 17, 20, 21, 22, 23, 32, 33.
4.5	442	1-10, 13, 15-18, 19, 21, 26, 28, 29, 39, 43, 45, 47, 49.