MAT 296 - CALCULUS II
Syllabus Fall 2010
MWF Sections with Tuesday Recitation

Course Description: MAT 296 is the second course in a three-semester sequence in calculus. This sequence is designed for students who intend to take more advanced courses in mathematics. This course covers techniques of integration, applications of integration, improper integrals, polar coordinates, sequences and series (including power series, Taylor and Maclaurin series).

Learning Goals: The broad goals for this course are for you
- To have a basic knowledge and understanding of the analytic and geometric concepts taught, and of some of their classical applications to other sciences, such as physics
- To understand the nature and role of deductive reasoning in mathematics
- To have the ability to use and understand the usage of mathematical notation
- To have the ability to do hand calculations accurately and appropriately
- To have the ability to follow proofs and other mathematical discourse

Prerequisite: Completion of MAT 295 (Calculus I)) with a grade of C- or better is a prerequisite for MAT 296. **If you have not satisfied this prerequisite, you must drop MAT 296 and register for MAT 295.**

Students who earned a C or less in MAT 295 are at great risk in MAT 296. For these students it is important to review material from earlier courses, especially as it comes up again. It is also vital not to fall behind with the current material.

Text: *Calculus* (Early Transcendentals version) 6th Edition, by James Stewart, Thomson Brooks/Cole, 2008. (The material we will cover appears in Chapters 6 through 11.)

Online Homework System: Most of the assigned homework problems will be done using the online homework system, WebAssign. To use this system, you are required to purchase an access code. You may do so either at the campus bookstore or online at www.webassign.net. You should access this system as soon as possible and begin your first assignment. The remaining homework problems will be written up and collected for grading.

Calculators: A calculator is not required for this course. If you would like to use a calculator, a TI-84 is recommended. Your instructor may allow the use of calculators on quizzes or exams; however, in such a case the use of calculators with symbolic algebra capability, such as the TI-89 or the TI-Nspire with CAS, is strictly forbidden. Be sure to check with your instructor beforehand to see whether calculator use is permitted on quizzes and exams and whether your particular model is allowed. The use of non-symbolic calculators (such as the TI-84 and TI-83) will be allowed on the Final Exam.

Course Format: The course meets four times per week. Your primary instructor will meet with the class MWF, while your recitation instructor will meet with you for the remaining session. New material will be introduced in lecture by your primary instructor. Your recitation instructor will give you more practice on the course material and/or answer some questions on the assigned homework problems. A quiz will be given in most recitation sections. Midterm exams will be given in the recitation.

Expected Work and Grading: The required work for this course includes daily homework assignments, quizzes, three hour tests, and a final exam. These pieces will be weighed as follows in determining your semester grade:

        Homework and quizzes – 20%
        Each hour test – 20%
        Final Exam – 20%

Your course grade will be determined as follows:

93-100	A	77-79	C+
90-92	A-	73-76	C
87-89	B+	70-72	C-
83-86	B	65-69	D
80-82	B-	0-64	F

Homework: To learn the material in a mathematics class, it is essential to do all the homework assignments. The daily homework assignments for the semester are listed below. Some variations from the list of homework exercises may be announced in class.

Quizzes: There will be weekly quizzes except in the weeks you have an hour test. They will be given in your recitation section and will have several problems similar to the homework.
No make up quizzes will be given. Your instructor may elect to drop one or more quiz grades in computing your quiz average for the semester and if so, may instead elect to drop the grade for a missed quiz

Midterm Exams: Three midterm exams will given during the semester at the following times:

Exam 1: Tuesday, September 28
Exam 2: Tuesday, October 26
Exam 3: Tuesday, November 30

No make-up midterm exams will be given. If you miss a midterm exam and have a written, valid excuse (e.g. from a physician), you may use your score on the relevant portion of the final exam to replace the missed midterm.

Final Exam: There will be a cumulative final exam for the course. It will be given on
Wednesday, December 15 sometime between 8:00 AM and 2:30 PM.
The exact time and location will be announced later in the semester. **Do not make plans to leave campus before 2:30 PM on December 15**.
The Final Exam may be taken only at its announced time – no make-up Finals will be given.

Class Attendance and Participation: You are expected to attend class and participate in it. Missing class is among the most common reasons for poor performance in the course. If you miss a class, you are responsible for obtaining notes for that class from a student who attended. It is also your responsibility to find out about any announcements concerning homework, quizzes or exams that were made during the class.

Help: Your instructors will be available regularly during their office hours. You can also seek help at the Calculus Help Center in the Reading Room of Carnegie Hall. The Help Center hours are posted by 215 Carnegie Hall or you can obtain a copy of the schedule in the Math Department Office.

Course Supervisor: Professor Claudia Miller, 304D Carnegie. Telephone 443-1493. E-mail clamille@syr.edu. Please inform your instructor of any problems you have. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor without delay.

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academicintegrity.syr.edu

Students with disabilities: Students who are in need of disability-related academic accommodations must register with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498. Students with authorized disability-related accommodations should provide a current Accommodation Authorization Letter from ODS to the instructor and review those accommodations with the instructor. Accommodations, such as exam administration, are not provided retroactively; therefore, planning for accommodations as early as possible is necessary.

How to Succeed: Here are a few basic suggestions for how to succeed in this course.

(1) It is absolutely essential that you understand how to solve the assigned homework problems and, more importantly, how and why the skills and techniques presented in the course are used in solving the assign problems. Quiz and exam questions will be similar to these problems.

(2) Ask questions in lecture, recitation and/or at the clinic about anything that is not completely clear. Don't hesitate to bring questions to your instructors during office hours.

(3) Every day, read and study the sections in the textbook covered in the lecture. Learning mathematics takes time! Read carefully and work through all the examples in complete detail. It can be helpful to try to work through an example on your own before reading the solution.

(4) Stay caught up. Calculus concepts build on each other cumulatively and you need to stay on top of the material at every stage. If you are having difficulty, don't expect that the problem will take care of itself and disappear later. Contact your course instructor or your recitation instructor immediately and discuss the problem!

(5) Form a study group. Many students benefit from a study group to work through challenging problems and to review for exams. You should attempt the problems ahead of time by yourself and then work through any difficulties with your study partners. Explaining your reasoning to another student can help to clarify your own understanding.

(6) You should expect to work hard. Don't get discouraged if you find some of the material very difficult. Be persistent and patient! If you follow the above suggestions, your experience in this course will be a rewarding one.

Day	Date	Section	Problems
M	8/30	5.2 5.5 6.1	33, 34, 40 8, 16, 21, 23, 26, 30 1, 5, 13, 17, 27, not on-line: 6.1 #2
W	9/1	6.1	4, 11, 19, 48, 49
F	9/3	6.2	3, 5, 7, 9
M	9/6	no class	
W	9/8	6.2	11, 13, 14, 15, 17 not on-line: 31, 34, 36
F	9/10	no class	
M	9/13	6.3	3, 4, 9, 10, 11, 18, 19, 37, 39 not on-line: 22, 24
W	9/15	6.4	13 not on-line: 15, 16,
F	9/17	6.4	23, 24 not on-line: 20
M	9/20	7.1	3, 6, 7, 9, 13, 15, 39, 41, 42, 54, 58 not on-line: 20, 22
W	9/22	7.2	2, 11, 12, 17, 20, 63 not on-line: 4, 8
F	9/24	7.2	21, 24, 25, 29, 47 not on-line: 26, 34
M	9/27	review	**(Exam 1 in recitation Tues 9/28)**
W	9/29	7.3	5, 11, 13, 14 not on-line: 4
F	10/1	7.3	7, 19, 20 not on-line: 6, 12, 22
M	10/4	7.4	10, 22, 23 not on-line: 11, 12, 15
W	10/6	7.4	24, 28, 62 not on-line: 64b
F	10/8	7.5	2, 4, 6, 13, 18 not on-line: 9, 10, 16, 37
M	10/11	7.8	5, 13, 20 not on-line: 6, 12, 14
W	10/13	7.8	28, 29, 33, 39 not on-line: 30, 32, 40
F	10/15	8.2	2, 5, 7, 14, 16, 26 not on-line: 25
M	10/18	10.3	1, 3, 5, 7, 9, 11, 15, 17, 20, 21, 22, 24 not on-line: 32
W	10/20	10.3	not on-line: 33, 34, 37, 42
F	10/22	10.4	3, 7, 9, 10, 27, 28 not on-line: 18, 24
M	10/25	review	**(Exam 2 in recitation Tues 10/26)**

W	10/27	11.1	4, 5, 10, 12, 13, 18, 19, 20, 29, 31, 32, 33 not on-line: 15
F	10/29	11.2	11, 13, 18, 47, 50
M	11/1	11.2	4, 6, 9, 20, 23, 25, 26, 28
W	11/3	11.3	3, 5, 7, 13, 17, 19, 21, 23, 27 not on-line: 12, 16, 22, 24, 26
F	11/5	11.4	3, 5, 9 not on-line: 10, 11, 14
M	11/8	11.4	17, 19 not on-line: 16, 20, 22, 24
W	11/10	11.5	5, 7, 8 not on-line: 12, 14, 32, 34
F	11/12	11.6	2, 3, 5, 9 not on-line: 4, 6, 8
M	11/15	11.6	14, 31 not on-line: 10, 17, 33
W	11/17	11.7	1, 3, 7, 13, 17 not on-line: 4, 6, 8, 16, 20, 26, 28
F	11/19	11.8	3, 7 not on-line: 5, 6, 10
M	11/22	11.8	15, 19, 23 not on-line: 18, 22, 30
W	11/24	no class	
F	11/26	no class	
M	11/29	review	**(Exam 3 in recitation Tues 11/30)**
W	12/1	11.8	not on-line: 16, 20, 26
F	12/3	11. 10	7, 8, 13 not on-line: 6, 10, 18, 20
M	12/6	11.10	31, 48 not on-line: 30, 47, 50
W	12/8	11.10	17 not on-line: 15, 19
F	12/10	review	