

Syllabus for Math 236, *Calculus II*, Fall 2017

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Office Hours: MWF 11:10am-12:00 noon, and by appointment.

COURSE GOALS: Math 236 continues Calculus I and gives a solid coverage of integral calculus, infinite sequences and series, and power series.

REQUIRED TEXT: *Calculus*, by Laura Taalman and Peter Kohn, Freeman, 2012.

CALCULATORS: For quizzes and exams, you may use a simple scientific calculator that is not programmable and does not store formulas or graph functions. You may use any calculator or computer to assist you in understanding the material and doing the homework.

OTHER MATERIALS: You need a 3-ring binder or folder to hold homework assignments. Not a spiral notebook. This notebook should be separate from your note taking notebook. PENCIL - all quizzes and tests must be done in pencil. Those done in pen will have points deducted.

GRADING: The grading will be assigned the following scale:

A: 90-100% B: 80-89% C: 70-79% D 60-69% F: Below 60%

There will be no curves and no extra credit. I will assign +/- on an individual basis. Points are assigned as follows: Friday Quizzes (10) - 100 points Midterm exams (3) - 100 points each Homework Quizzes - approximately 50 points Final exam - 150 points

QUIZZES: There will be a 10 point closed book quiz each **Friday**. This quiz will cover material through the previous class. Quiz questions will be similar (but certainly not limited) to homework questions. The 10 best quiz scores will be kept, and the rest will be dropped. There will be no make up quizzes given. The quizzes are a good way for you to gauge your understanding of the current material and to keep up with the homework.

MIDTERMS and FINAL: There will be three midterms during the semester worth 100 points each and a final exam worth 150 points. If you cannot make it to a scheduled exam, you **MUST** contact the instructor **BEFORE** the exam if at all possible, or if an emergency, **WITHIN 24 HOURS** after the exam if you need to schedule a make up exam. Make up exams will only be given for extreme excuses. A doctor's note or some other physical excuse is required. Dates for exams (subject to change):

Midterm I - Tuesday September 26

Midterm II - Tuesday October 24

Midterm III - Tuesday November 14

Final Exam - Section 001 Thursday*, December 14, 8:00am-10:00am

- Section 002 Monday, December 11, 8:00am-10:00am

*This is based on the T/Th meeting time

UNIVERSITY POLICIES For University policies for attendance, inclement weather, disability accommodations and religious accommodations, please see: <http://www.jmu.edu/syllabus/>

HOMEWORK: Homework problems from the text will be assigned, but not collected. Homework, however, is of the utmost importance! You must keep up with the homework, and do it everyday. Here is a homework strategy that I recommend:

- Before class, read the section that we will go over.
- That evening, read the section again, paying particular attention to the example problems.
- Try each homework problem. If you can't get started, look for a similar example problem in the text.
- After getting a solution, check the answer in the back of the book. If you are correct, go on. If not, put a star by the problem, and try it again. If you still cannot solve the problem, even knowing the answer, then put two stars next to it, and ask about it in class.
- When reviewing for quizzes and exams, pay particular attention to the starred problems.

There will be opportunities to ask questions about the homework problems at the beginning of each class. However, there may not be time to answer everyone's questions, or go over every homework problem. You are encouraged to work together in groups on the homework problems. You should also keep notecards with Theorems, Integration techniques, Convergence tests and any other things you think you need to memorize. These notecards can be reviewed before each quiz, exam and the final exam. See below for "additional help".

HOMEWORK QUIZZES There will be a 3 point attendance/homework quiz each **Wednesday**. You will be allowed to have your homework notebook on your desk, but no text or other materials. One homework problem that has been assigned since the previous Wednesday will be on the quiz. You will receive 1 point for writing the correct problem. 1 point for showing work. And 1 point for getting the correct solution. Correct solution with no work will receive no credit. No make up quizzes.

ADDITIONAL HELP: Calculus is a notoriously difficult class. Expect to put a lot of time and effort into the class and homework. Do NOT allow yourself to fall behind! This class moves very quickly, and there is not time to catch up. If you feel yourself falling behind, come to my office hours to discuss how keep up. If you need extra help, contact others in the class to form a study group.

The Science and Math Learning Center (SMLC) is located on the first floor of the Student Success Center and provides free, drop-in tutoring (i.e. No appointment needed) Monday through Thursday 10AM-8PM, Friday 10AM-2PM, and Sunday 5PM-8PM. The SMLC opens on Monday, Sept 4 and closes Friday, Dec 8. You are welcome to e-mail homework questions to me, but please include the entire question, because I may not have access to a book when I answer your e-mail.

FIRST WEEK ATTENDANCE POLICY: At the instructor's discretion, any student registered for a class in the Department of Mathematics and Statistics who does not attend at least one of the first two scheduled meetings of the class (or does not attend the first scheduled meeting of a class that meets once a week) MAY be administratively dropped from the class. Students will be notified by e-mail if they will be dropped. Students who fail to attend should not assume they will be administratively dropped by their instructor; it is the students responsibility to drop the course on their own or they will receive a grade at the end of the semester. All students are responsible for verifying the accuracy of their schedules and changes made in their schedules.

HONOR CODE You are to abide by the JMU honor code at all times. Ignorance of the law is no excuse. Cheating will not be tolerated and will be prosecuted to the fullest extent. Familiarize yourself with the honor code here: <http://www.jmu.edu/honorcode/>

LEARNING: Your goal in this class is to learn Calculus. My role is to facilitate that learning. You will get out of this class what you put in to it. There are no shortcuts. You MUST do the homework. You MUST study for the quizzes each week. You MUST get help as soon as you do not understand a concept so that you can LEARN it and move on to the next one. Learning is not easy. It takes effort and persistence. It is a struggle. Do not see your mistakes as failures, but rather as learning opportunities! It is the struggle that leads to learning. Embrace the challenge.

Math 236 Fall 2017 Outline

Week 1 **Aug 28-Sept 1** Class overview, Calc I review, Section 4.5,4.7

Week 2 **Sept. 4-8** Sections 5.1, 5.2, 5.4

Week 3 **Sept 11-15** Sections 5.5, 5.3

Week 4 **Sept 18-22** 3.6 L'Hospital's rule, 5.6, 5.7

Week 5 **Sept 25-29** review, Midterm I (Ch 5), Section 6.1

Week 6 **Oct. 2-6** Sections 6.2, 6.3, 6.4

Week 7 **Oct 9-13** Sections 6.5, 7.1, review of limits

Week 8 **Oct 16-20** Section 7.2

Week 9 **Oct 23-27** review, Midterm II (Ch 6, 7.1-7.2), Section 7.3

Week 10 **Oct 30-Nov 3** Section 7.4, 7.5

Week 11 **Nov 6-10** Sections 7.6, 7.7

Week 12 **Nov 13-17** review, Midterm III (7.3-7.7), 8.1

Week 13 **Nov 20-24 Thanksgiving Break**

Week 14 **Nov 27- Dec 1** Sections 8.2, 8.3

Week 15 **Dec 4-8** Section 8.4, review

Week 16 **Wednesday, Dec 13 Final Exam** Section 002 8:00am-10:00am, Burruss 139
Thursday, Dec 14 Final Exam Section 001 8:00am-10:00am, Burruss 032

Math 236 Exercises

Note: Sections may be covered in a different order.

4.5: 1, 8, 15

4.7: 1, 11, 12, 17, 18, 19

5.1: 1, 9, 11, 16, 17, 20, 23, 24, 25, 27, 30, 32, 33, 44, 45, 49, 54, 55, 57, 58, 63, 66, 67, 72, 75

5.2: 1, 3, 9, 25, 32, 34, 39, 41, 42, 47, 49, 57, 63, 77, 90

5.3: 1, 3, 18, 21, 22, 26, 29, 31, 41, 45, 50, 53

5.4: 1, 27, 31, 32, 41, 44, 45, 51, 55, 61, 70, 73, 83

5.5: 1, 8, 12-17, 30, 31, 39, 41, 45, 56, 57, 64, 65, 68, 71, 72

5.6: 1, 3, 10, 11, 12, 17, 29, 32, 36, 38, 41, 43, 36, 51, 74, 75

5.7: 1, 3, 5, 25, 32, 41, 43

6.1: 1, 10, 11, 21, 22, 25, 26, 32, 34, 41, 42, 44, 45, 50, 51, 63

6.2: 19, 20, 29, 31, 32

6.3: 31, 33, 47, 49, 63, 65

6.4: TBA

6.5: 1a-d, 3, 5, 20, 23, 24, 35, 36, 45, 48, 51, 66

7.1: 1, 3, 10, 12, 15, 26, 29, 35, 51, 53, 57, 60, 69, 73

7.2: 1, 3, 6, 7, 13, 25, 27, 28, 29, 37, 39, 40, 43, 55, 64

7.3: 1, 3, 5, 9, 16, 17, 35, 43, 45, 47, 48, 49, 52, 53, 54, 55, 57, 59, 60, 62, 65, 83

7.4: 1, 3, 4, 9, 18, 19, 22, 24, 25, 27, 32, 33, 34, 40, 42

7.5: 1, 5, 14, 19, 23, 25, 29, 33, 34, 35, 38, 39, 43, 47

7.6: 1, 29, 31, 33, 35, 37, 39, 40, 42, 44, 45, 47, 49, 57

7.7: 1, 3, 9, 10, 12, 24, 25, 26, 29, 30, 31, 34, 46, 49, 51, 53, 55, 57, 64

8.1: 1, 4, 7, 11, 12, 13, 15, 22, 23, 26, 27, 31, 33, 37, 41

8.2: 1, 5, 6, 9, 15, 18, 23, 24, 28, 33, 38, 42, 45, 47, 50, 53, 55

8.3: 1, 17-21, 23, 24, 33, 34, 37, 38, 62, 63, 65

8.4: 1, 3, 13-16, 27, 28, 30, 33, 44, 45, 46, 50