James Madison University
Department of Mathematics and Statistics
Calculus with Functions II – Math 232   Spring 2008

Section 4: MWF 10:10-11:00 Burruss 033, Tu 11:00-12:15 Burruss 033
Section 5: MWF 1:25-2:15 Burruss 033, Tu 2:00-3:15 Burruss 033

Overview: The Math 231-232 sequence covers all the material in Math 235 (Calculus I, concentrating on limits, derivatives, and applications) as well as precalculus and algebra material, and some material from the beginning of Math 236 (Calculus II, integration and applications). This course is for students that would like some more precalculus and algebra preparation while learning calculus. You should not necessarily take this course simply because you haven't had calculus in high school, or if you think it will be "easier" than Math 235. Math 232 is no easier (many 231-232 students in fact feel it is harder), but gives you a better understanding of the material if your algebra and precalculus skills need some sharpening before leaping into Calculus proper.

Instructor: Dr. Stephen Lucas. **To contact me:** In Person: Roop 324, Office Hours: Tu 1:25-2:15, W 11:15-12:30, F 11:15-12:30 & 2:30-3:30 or by appointment. Phone: 568-5104, Email: lucassk@jmu.edu.

Website: Math 231 link at www.math.jmu.edu/~lucassk.

Textbook: *Integrated Calculus* by Laura Taalman, first edition hardcover copyright 2005. We will cover Chapters 7 to 15.

Calculators: A graphing calculator will be a very useful aid for this course. I recommend the TI-83. If your only calculator is a TI-89 or a TI-92 or any other calculator capable of symbolic manipulation, differentiation, etc, please see me as soon as possible because these types of calculators will be banned from tests and the final exam.

Homework, Exams and Grading: Problems sets are divided into two categories: tutorial and homework. The tutorial questions should be attempted as soon as possible after the lecture, but should not be handed in. During tutorial times you will be able to get assistance with tutorial questions. Homework questions for the previous week should be handed in on the following Monday. A random selection will be graded. The attached syllabus also lists dates for the midterm exams. Midterm exams will be a collection of assigned problems. Your grade will be determined as follows: Homework 15%, Midterm tests 15% (each), Final Exam 40%. The final exams are timetabled for Wednesday April 30th 2008, 10:30-12:30 (Section3) and Monday April 28th 2008, 3:30-5:30 (Section 5). Final grades will be somewhat related to A=85, B=65, C=50, but will vary depending on the class average and natural divisions between raw scores. Plus/minus grades will also be provided. Borderline cases will be decided based upon class participation, effort, and performance throughout the semester.

Attendance: Attendance is not mandatory. However, past experience suggests there is an extremely strong correlation between attendance and passing. If you cannot make a class where homework is being collected, please give to a classmate to give to me on the day. If you miss handing in homework or a test without previously getting my permission, you will receive a zero for that assignment or test. If there is a medical emergency and you cannot inform beforehand, let me know as soon as possible.

Getting Help: If you need help, ask! The worst thing you can do in a math course is let things slide, since earlier material is often assumed to be known later. It is best to contact me via email. If you wish to see me outside of office hours, please make an appointment beforehand. I can't guarantee that I will be available if you come and knock on my door at a random time. You can also get help from the Math and Science Learning Center (Roop 200), which is a resource specifically designed for helping students in courses like this one.

Some random advice
- Read each section of the book either before or after the corresponding lecture, but always before you attempt the homework questions.
- Do the homework problems as soon as possible after the lecture, so that if you have problems you can get help in time, or identify areas you want covered in more detail in the tutorials.
- Don't just copy the answers in the back of the book! Include appropriate amounts of working. True/false questions ask for reasons, so don't just write "true" or "false".
- There are a lot of homework questions, but this will force you to work consistently through the semester, not just cramming it all in a few days before a test. Try and spend roughly ten hours a week on all aspects of this course.
- Don't fall behind. If something doesn't make sense, ask me about it in lectures. It's quite likely that several other students don't understand what is causing you problems, so I can immediately try and explain it in another way. Lectures are not there for me to drone on endlessly; they are there for me to help you learn.
- If you get a bad grade in a homework or test, don't panic. Instead, get help, and take the time to work out what you missed.
- Math is about understanding, not memorizing. If you are memorizing a lot of things you may be studying the wrong way.
- Working in groups is encouraged, since talking over problems is one of the best ways to learn. I have no problem with you working together on the assignments. However, *simply copying someone else's assignment and handing it in is plagiarism*. Write out your own version.
- An errata list for the textbook can be found at http://www.math.jmu.edu/~taal/errata.html.

Proposed Math 232 Syllabus and Homework Questions   Spring 2008

Date	§	Tutorial	Homework
1-M 1/7		Outline and Ch 6 Review	
1-Tu 1/8	7.1	3,5,8,14,17,25,40,42,56,58	4,9,19,28,47,57
1-W 1/9	7.2	9,15,22,35,48,56,61,72	13,23,40,54,70,79
1-F 1/11		Tutorial	
2-M 1/14		Martin Luther King Jr. Day, No class	
2-Tu 1/15	7.3	5,9,11,15,26,27,32,33,57	3,12,18,28,38,39,42,43
2-W 1/16	7.4	3,4,8,12,18,20,24,25	7,13,21,23,28
2-F 1/18		Tutorial	
3-M 1/21	7.5	4,10,20,24,31,41,56,64,71	23,35,37,51,61,70
3-Tu 1/22	8.1	2,3,5,8,12,14,18,24,30,36,37	4,7,20,21,27,33,34
3-W 1/23	8.2	7,12,13,15,28,33,41,44,47,55	8,9,21,22,29,36,42,51,54
3-F 1/25		Tutorial	
4-M 1/28	8.3	2,7,21,25,33,36,37,46,49,51,57	8,20,26,32,39,54
4-Tu 1/29	8.4	1,3,8,11,18,23,29,38,39,41	6,10,24,27,34,40
4-W 1/30	8.5	2,3,6,7,11,15,20,29,38	9,14,19,23,31,39
4-F 2/1		Tutorial	
5-M 2/4	8.6	6,7,13,19,27,28,31	5,14,20,23,30,37
5-Tu 2/5	8.7	2,8,9,12,25,30,36,39,45	6,18,24,34,35,40,48
5-W 2/6	9.1	4,13,19,28,40,53,54,59	15,24,32,34,46,65
5-F 2/8		Tutorial	
6-M 2/11		Test I (7.1-8.7)	
6-Tu 2/12		Student Assessment, no class	
6-W 2/13	9.2	3,12,20,30,32,43,48	4,22,26,34,40,49,60
6-F 2/15		Tutorial	
7-M 2/18	9.3	1,3,4,8,10,13,19,24,25,27,37,42,47	2,5,6,11,16,23,30,39,45
7-Tu 2/19	10.1	2,7,9,16,22,27,36	4,5,23,31,35,40
7-W 2/20	10.2	2,9,12,14,20,35,52,61,75,79,85	10,38,46,63,72,84
7-F 2/22		Tutorial	
8-M 2/25	10.3	6,16,36,43,51,52,70	9,19,33,45,48,56,65
8-Tu 2/26	10.4	2,14,16,29,37,49,55	15,31,48,50,56
8-W 2/27	10.5	11,21,23,30,33,46,64,67	15,22,39,48,65,69
8-F 2/29		Tutorial	

Date	§	Tutorial	Homework
3.3-3.7		Spring Break	
9-M 3/10	10.6	1,14,24,36,49,61,65,77	12,15,29,41,54,58,74,76
9-Tu 3/11	11.1	3,10,16,18,24,26,36,39,45,56,63	4,14,21,31,51,66
9-W 3/12	11.2	3,8,25,27,28,29	6,21,22
9-F 3/14		Tutorial	
10-M 3/17		Test II (9.1-11.2)	
10-Tu 3/18	12.1	1,7,15,20,24,28,35,42,43,48,53,59	6,10,21,23,33,37,40,45,50,57
10-W 3/19	12.2	1,9,12,13,17,24,28,38,40	3,10,15,18,29,35,43
10-F 3/21		Tutorial	
11-M 3/24	12.3	2,7,8,17,19,26,31,32,38,40,49	3,9,16,21,25,33,37,43,48
11-Tu 3/25	12.4	1,11,14,18,31,42,54,65,68(a,b,c)	9,13,21,27,33,45,59,68(d,e)
11-W 3/26	13.1	1,4,9,10,18,22,29,32,38,52,59,62	3,15,16,19,26,36,38,58,69
11-F 3/28		Tutorial	
12-M 3/31	13.2	1,9(a,c,d),10,16,19,28,31,40,42,54	3,9(b,e,f),17,18,30,34,35,45
12-Tu 4/1	13.3	1,9,16,17,22,29,36,45,49	3,12,15,18,26,33,37,42,58,59
12-W 4/2	14.1	4,10,15,19,26,40,48,49,65,77	6,16,21,29,41,54,66,72
12-F 4/4		Tutorial	
13-M 4/7	14.2	11,13,24,25,28,35,45,49,68	12,18,26,27,34,42,48,55
13-Tu 4/8	14.3	8,17,21,24,30,35,46,52,57	11,19,20,27,31,34,53,62
13-W 4/9	14.4	2,18,27,31,36,39,47,53,72	15,29,35,37,38,49,55,81
13-F 4/11		Tutorial	
14-M 4/14	15.1	3,8,12,19,31,37,44,45,53	6,10,16,21,25,40,55
14-Tu 4/15	15.2	5,8,13,18,23,31,35,40,43,50	6,10,14,25,33,37,45,56
14-W 4/16	15.3	3,6,14,16,24,35,40,42,47	8,13,19,27,35,41,45,48
14-F 4/18		Tutorial	
15-M 4/21		Test III (12.1-15.1)	
15-Tu 4/22	15.4	2,5,7,9,11,15,17,19,26,30,32	3,8,12,16,23,28,33
15-W 4/23		Evaluations, Tutorial, Final Information	
15-F 4/25		Review	