

Helpful Sample of MA113

From Spring 2004

MA113 Sections 004-006
Course Information

Spring 2004

Lecturer: Ronald Gariepy, 775 Patterson Office Tower, Office hours: MWF 1:00 – 2:00 p.m. and by appointment. E-mail: gariepy@ms.uky.edu.

Rooms: Lecture: MWF in CP220, 10:00 – 10:50 a.m. Recitations: Section 004, TR 8:00am-9:15am in CB205. Section 005, TR 2:00pm-3:15pm in CP201. Section 006 TR 3:30pm-4:45pm in CP208.

Textbook: The textbook for this course will be *Calculus, 3rd edition*, by James Stewart.

Material to be covered: This is a first course in calculus. In the first semester, we will study derivatives, integrals and the fundamental theorems of calculus, which give the connections between integrals and derivatives. We will begin by introducing the notion of limit, which is essential to defining derivatives and integrals. By the end of the semester students should know precise definitions of these objects. We will also give an indication of the sorts of problems that can be solved using calculus and discuss various interpretations of the derivative and of the integral.

Homework: You should try to work most of the problems on the course calendar. The problems on the course calendar will be used as guides in constructing exam questions. Your main task in recitation is to make sure that you understand these problems. No homework will be collected.

Quizzes: In general, a short quiz will be given in the recitation on Thursdays.

Exams: There will be three exams and a final. These exams are scheduled in the evening as indicated in the course calendar. The final exam will be cumulative, but with an emphasis on the material covered since the last test.

MA193: In addition to 4 hours of credit for MA113 the department offers one additional hour of credit as MA193 on a pass/fail basis. Your section number for MA193 should be the same as your section number for MA113. If you drop or change sections of MA113, please make sure to also drop or change sections of MA193. Your grade in MA193 will be "pass" if, and only if, your grade in MA113 is a passing grade.

Grading: Grades will be determined using the following distribution

3 hour exams	300
Final exam	150
Homework and quizzes	100
TOTAL	550

A: (495 – 550), B: (440 – 494), C: (385 – 439), D (330 – 384).

Calculators: Students may use a graphing calculator on exams and homework. Students may not use a machine with symbolic manipulation capabilities on exams. Thus, no TI-89's, TI-92's, no HP-48's or laptop computers may be used on exams. Please see the lecturer if you have any questions.

Day	Date	Section	Topic	Exercises and Comments
W	14 Jan	1&2	Review functions and graphs	Sec. 1: 77, Sec. 2: 3, 5, 7, 9, 11, 13, 19, 21
F	16 Jan	1.1	Tangents and velocity	3, 5, 6, 7
M	19 Jan		Holiday	No classes
W	21 Jan	1.2	Defining limits	9, 15, 19, 29, 33, 39, 45, 47
F	23 Jan	1.3	Calculating limits	1, 5, 13, 17, 27, 33, 59, 61
M	26 Jan	1.4	Precise definitions	
W	28 Jan	1.5	Continuity	3, 13, 17, 33, 37, 45, 49
F	30 Jan	1.6	Tangents, rates of change	5, 7, 11, 15, 17
M	2 Feb	2.1	Derivatives	3, 7, 13, 23, 31, 34, 35, 39, 44
W	4 Feb	2.2	Differentiation formulas	1-34, 41, 45, 49, 57 (Last day to drop w/o grade)
F	6 Feb	2.3	Interpretations	1, 3, 5, 7, 9, 11, 13
M	9 Feb		Review	
Tu	10 Feb		Exam 1, 7:30 – 9:30 P.M.	Room TBA

Calendar

Unit I

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Calendar: Unit 2

Day	Date	Section	Topic	Exercises and Comments
Wed	Feb. 11	Appendix	Trigonometry review	15, 29, 31, 3, 43, 47, 29, 52, 66, 71, 83
Fri	Feb. 13	2.4	Derivatives of Trigonometric Functions	7, 12, 17, 20, 33, 35, 43, 47, 55
Mon	Feb. 16	2.5	The Chain Rule	13, 15, 30, 33, 46, 50, 60, 62, 73
Wed	Feb. 18	2.6	Implicit Differentiation	18, 20, 22, 30, 31, 36, 42(a), 45
Fri	Feb. 20	2.7	Higher Derivatives	8, 12, 23, 30, 36, 42, 48
Mon	Feb. 23	2.8	Related Rates	5, 7, 9, 12, 13, 16, 21, 28
Wed	Feb. 25	2.8	Related Rates (cont.)	
Fri	Feb. 27	2.9	Differentials: Approximation	18, 22, 24, 27, 30, 39, 54,
Mon	Mar. 1	2.10	Newton's Method	10, 12, 14, 20, 24, 27, 29
Wed	Mar. 3	3.1	Maximum and Minimum Values	12, 13, 20, 26, 28, 40, 44
Fri	Mar. 5		Review	
Mon	Mar. 8		Review	
Tues	Mar. 9		Examination 2, 7:30-9:30 P.M.	Room: CP 139

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Calendar: Unit 3

Day	Date	Section	Topic	Exercises and Comments
Wed	Mar. 10	3.2	Mean Value Theorem	5, 13, 17, 19, 21
Fri	Mar. 12	3.3	First Derivative Test	7, 11, 15, 23, 35, 37
Mon.-Fri.	Mar. 15 -20		Spring Break	
Mon	Mar. 22	3.4	Concavity, Inflection Points	5, 9, 13, 17, 25
Wed	Mar. 24	3.5	Limits at Infinity	5, 11, 17, 43, 53
Fri	Mar. 26	3.6	Curve Sketching	5, 11, 13, 31, 35, 53
Mon	Mar. 29	3.8	Applied Max/Min Problems	3, 5, 9, 11, 20
Wed	Mar. 31	3.8	Continued (cont.)	21, 23, 26, 33
Fri	Apr. 2	3.10	Anti-derivatives	15, 19, 27, 55, 57
Mon	Apr. 5	4.1	Summation Notation	11, 13, 21, 23, 41
Wed	Apr. 7	4.2	Area	1, 3, 9, 11, 13, 17, 25
Fri	Apr. 9		Review	
Mon	Apr. 12		Review	
Tues	Apr. 13		Examination 3, 7;30-9:30 P.M.	Room: CP 139

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Calendar: Unit 4

Day	Date	Section	Topic	Exercises and Comments
Wed	Apr. 14	4.3	The Definite Integral	21, 25, 28, 35, 37, 43, 51
Fri	Apr. 16	4.4	Fundamental Theorem	13, 17, 23, 27, 51, 69, 81
Mon	Apr. 19	4.5	Substitution Rule	11, 21, 29, 41, 49, 53, 59
Wed	Apr. 21	5.1	Area Between Curves	7, 9, 15, 17, 25, 33
Fri	Apr. 23	5.2	Volume	9, 11, 35, 43, 49, 61
Mon	Apr. 26		Review	
Wed	Apr. 28		Review	
Fri	Apr. 30		Review	Last Class
Mon	May 3		Final Examination, 6:00 - 8:00 P.M.	Room To Be Announced

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