

MA 114 Common Course Page - Spring 2010

Calendar

Homework

Exam

Rooms

MA 114 is a second course in calculus with 4 hours of credit. The prerequisite is a grade of C or better in Calculus I (MA 113, MA 132 or equivalent) and high school trigonometry or MA 112. The course meets three hours per week for lectures delivered by a professor and two hours per week for recitation conducted by an instructor. Recitation time may be spent discussing homework problems, solving worksheets, asking questions or taking quizzes.

Text and Topics

Our textbook is *Calculus, Early Transcendentals*, Sixth Edition (Custom Edition for UK), James Stewart, ISBN: 0-495-56339-0. We will cover most of Chapters 6, 7, 9, 11. This includes infinite sequences and series, volumes and work, techniques of integration, and differential equations. Further details are given in the Course Calendar.

Exams and Grades

The course grade will be computed, with 90-100% A, 80-89% B, 70-79% C, 60-69% D, 0-59% E, on the basis of 500 points earned as follows:

Three night Exams (100 points each)	300 points
Final Exam	100 points
Recitation score	100 points
Total	500 points

The night exams will be given Tuesday evenings from 7:30-9:30 p.m. on February 9, March 9 and April 13 in a room that is determined by your lecture section. See Exam Rooms. The final exam is comprehensive and will be held in your lecture hall at the time and place specified in the University Final Exam Schedule. Students may use a graphing calculator on exams but may not use any machine with

the ability to do symbolic computations such as the TI-89, TI-92, HP48 or a laptop. Cell phones must be turned off and put away out of sight during an examination. During regular class periods cell phones must be turned off and laptops may not be used. You are required to present FULL documentation that any makeups you request are required by University rules.

Exams will be based on the lectures, homework and worksheets. To do well in the course it will be essential for you to work carefully through the assigned homework problems and examples given in lecture (and worksheets) and to understand how these illustrate the general concepts and methods of the course.

Lectures

Information specific to each of the sections can be found by clicking on the appropriate section in the table below. Information about a lecturer can be obtained by clicking on the lecturer's name.

Sections	Lecturer	Time	Room
001-003	Harris	MWF 8:00-8:50 a.m.	CB 102
004-007	Royster	MWF 11:00-11:50 a.m.	CB 122
008-011	Perry	MWF 9:00-9:50 a.m.	CB 122
012-015	Eakin	MWF 1:00-1:50 a.m.	CB 110
401	Taylor	MTWR 6:00-7:15 p.m.	CB 241

Worksheets

Part of each recitation will be spent solving worksheets. These are available at Worksheets.

MA 194

MA 194 is an additional hour of pass-fail credit that a student in MA 114 can receive provided that the student's has at most 2 unexcused absences in recitation and passes MA 114. (MathExcel sections receive 2 credit hours.) It is important that students register in the same section of MA 194 that they are registered in for MA 114.

Additional Help

The Mathskeller is a mathematics resource center in room 65 of the basement of the Classroom Building. Tutorial help is available there on a walk-in basis for all 100-level mathematics courses. After this week, the hours are 9 a.m.-5 p.m. Monday through Friday. See also The Study, which is a peer tutoring program located on the 3rd floor of the Complex Commons building.

Date	Section	Topic
Sequences and Series		
W 1/13	§11.1	Sequences
F 1/15	§11.1	Sequences (continued)
M 1/18		Martin Luther King Day
W 1/20	§11.2	Series
F 1/22	§11.2	Series (continued)
M 1/25	§11.4	Comparison tests
W 1/27	§11.5	Alternating series
F 1/29	§11.6	Absolute convergence; Ratio and root tests
M 2/1	§11.7	Strategy for testing series
W 2/3	§11.8	Power series
F 2/5	§11.9	Representations of functions as power series
M 2/8		Review
T 2/9		Exam I (7:30-9:30 p.m., Room posted)
Taylor Series and Integration		
W 2/10	§11.10	Taylor and Maclaurin series
F 2/12	§11.10	Taylor and Maclaurin series (continued)
M 2/15	§5.5	The substitution rule
W 2/17	§6.1	Area between curves
F 2/19	§6.2	Volumes
M 2/22	§6.3	Volumes by cylindrical shells
W 2/24	§6.4	Work (for springs and cables)
F 2/26	§7.1	Integration by parts
M 3/1	§7.2	Trigonometric integrals
W 3/3	§7.3	Trigonometric substitution
F 3/5	§7.3	Trigonometric substitution (continued)
M 3/8		Review
T 3/9		Exam II (7:30-9:30 p.m., Room posted)
Integration and Differential Equations		
W 3/10	§3.11	Hyperbolic functions
F 3/12	§8.1	Arc length
3/15-19		Spring Break
M 3/22	§7.4	Partial fractions
W 3/24	§7.5	Strategy for integration
F 3/26	§7.7	Numerical integration (Last day to drop)
M 3/29	§7.7	Numerical integration (continued)
W 3/31	§7.8	Improper integrals
F 4/2	§11.3	Integral test
M 4/5	§9.1	Modeling with differential equations
W 4/7	§9.2	Direction fields and Euler's method
F 4/9	§9.3	Separable equations

M 4/12 Review
T 4/13 **Exam III (7:30-9:30 p.m., Room posted)**

W 4/14 §9.4 **Applications, Parametric equations, Polar coordinates**
F 4/16 §10.1 Population growth
M 4/19 §10.2 Parametric equations
W 4/21 §10.2 Calculus with parametric curves
F 4/23 §10.2 Calculus with parametric curves (continued)
M 4/26 §10.3 Polar coordinates
W 4/28 §10.4 Areas and lengths in polar coordinates
F 4/30 §10.4 Areas and lengths in polar coordinates (continued)
F 4/30 Review

Final exam (in lecture room)

Date Due	Assignment
Infinite Sequences and Series	
F 1/15	§ 11.1) 4, 12, 22, 24, 30
M 1/18	Martin Luther King Day
F 1/22	§ 11.1) 40, 64 § 11.2) 2, 14, 16, 20, 22, 42
W 1/27	§ 11.2) 32, 38, 50 § 11.4) 4, 12, 26, 28, 30
F 1/29	§ 11.5) 4, 8, 12, 14, 26, 32
M 2/1	§ 11.6) 4, 8, 14, 18, 26
W 2/3	§ 11.7) 4, 8, 22, 26, 32, 34, 38
F 2/5	§ 11.8) 8, 10, 14, 30
M 2/8	§ 11.9) 6, 16, 28
T 2/9	Exam I
Taylor Series and Integration	
F 2/12	§ 11.10) 12, 34, 40, 44
M 2/15	§ 11.10) 18, 20, 28, 54
W 2/17	§ 5.5) 10, 12, 18, 38, 40, 52
M 2/22	§ 6.1) 8, 14, 20, 30 § 6.2) 4, 10, 14, 52
W 2/24	§ 6.3) 4, 8, 10, 18, 44
F 2/26	§ 5.5) 16, 20, 36, 42, 64, 66
M 3/1	§ 6.4) 8 § 7.1) 6, 10, 26, 30
W 3/3	§ 7.2) 6, 12, 20, 30, 34
F 3/5	§ 7.3) 2, 4, 6, 8, 22
T 3/9	Exam II
Integration and Differential Equations	
F 3/12	§ 3.11) 4, 12, 16, 20, 44
3/15-19	Spring break
M 3/22	§ 8.1) 8, 12, 16, 40a
W 3/24	§ 7.4) 2, 4, 18, 20, 26
F 3/26	§ 7.5) 4, 6, 26, 52, 62
M 3/29	§ 7.5) 48 § 7.7) 6a, 8a,b, 20
W 3/31	§ 7.7) 6b, 8c, 22, 30
F 4/2	§ 7.8) 14, 16, 28, 30, 32, 54
M 4/5	§ 11.3) 16, 22, 32
W 4/7	§ 11.3) 36 § 9.1) 4, 6, 10, 12
F 4/9	§ 9.2) 2, 3-6, 24, 25b
M 4/12	§ 9.2) 28a § 9.3) 2, 16, 34
T 4/13	Exam III

	Applications, Parametric equations, Polar coordinates
F 4/16	§ 3.8) 4, 6, 10, 14
M 4/19	§ 10.1) 6, 14, 16, 22, 26
W 4/21	§ 10.2) 4, 8, 10, 14, 28, 32, 42
F 4/23	§ 10.3) 6, 18, 34, 44, 56
M 4/26	§ 10.3) 52, 54, 68, 70
W 4/28	§ 10.4) 14, 18, 24, 30, 48

Final exam (in lecture room)

MA 114 Spring 2010

Syllabus for Sections 001-003

Calendar

For information about the course applying to all sections including examinations and grading, see

Homework

MA 114 Common Course Page.

The following policies hold for Sections 001-003:

Exam

Rooms

Recitation

Click on your section number below for information provided by your recitation instructor.

Instructor:	Mr. Nicholas Armenoff	armenoff@ms.uky.edu	Office: 906 POT 257-7217
	<u>Section 001</u>	Tues. Thurs. 8:00-9:15 a.m	CB 239
	<u>Section 002</u>	Tues. Thurs. 9:30-10:45 a.m	CB 345
Instructor:	Ms. Sema Gunturkun	gunturkun@ms.uky.edu	Office: 718 POT 257-6806
	<u>Section 003</u>	Tues. Thurs. 11:00 a.m.-12:15 p.m.	CB 345

Out of the 100 possible points for recitation, homework will count 65 points, participation in recitation will count 15 points and attendance in lecture will count 20 points.

Homework

Homework is due at the beginning of class on the date assigned. The specific assignments and date due are given at Homework. No late homework will be accepted unless there is an acceptable documented excuse. At the end of the semester, your lowest homework grade will

be dropped.

To expedite grading, homework should be submitted in the following format.

1. On the upper right-hand corner of the first page
 - a. **print** your name,
 - b. write your section number,
 - c. give the date due.
2. Each problem solution should begin with the section number and the problem number. For example, §11.1-12. Solutions should be written out neatly and well organized.
3. Problem solutions must be given in the order assigned. If you want to defer a solution until later, you can leave a space for the solution to be filled in later or you can just start a new page and insert the solution when it is done.
4. Before you hand in your homework staple the pages together in the proper order.
5. On the date due, put your paper in the stack for your section on the front desk of the lecture hall.

Attendance

Attendance in lecture and recitation is expected. In particular, a student who is not present for the entire class period will be marked absent for that class unless the instructor or lecturer is presented with documentation of an excused absence. It is best to notify your instructor or lecturer ahead of time if possible. (See 5.2.4.2 of [Academic regulations.](#))

Final Exam

The final exam for sections 001-003 will be held from 8:00-10:00 a.m. on Wednesday, May 5, 2010.