

LECTURE: C 311 Wells Hall, MWF 11:30 – 12:20

INSTRUCTOR: Prof. R. Fintushel

OFFICE: D218 Wells Hall

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URL: http://www.math.msu.edu/~ronfint/MTH234_60Syllabus_S12.pdf

or more simply:

<http://www.mth.msu.edu>

and follow the links under 'Class Pages'. Alternatively, there is a link on my home page:

<http://www.mth.msu.edu/~ronfint>

OFFICE HOURS: M,W,F: 12:30 – 1:30, or by appointment.

RECITATION SECTION: T: 11:30 – 12:20 pm, C313 Wells Hall

RECITATION INSTRUCTOR: Christine Lee, leechr29@msu.edu, A515 Wells Hall

TEXTBOOK: Thomas' Calculus, 12th Edition

GENERAL COURSE DESCRIPTION: The topic of this course is vector calculus. We will study the differential and integral calculus of functions of several variables. This includes the topics of partial differentiation, multiple integrals, line and surface integrals, and the theorems of Green and Stokes. See the detailed course outline below.

IMPORTANT DATES:

Jan 13: Online open add period for Spring ends at 8pm.

Jan 20: Last day to change sections

Jan 20: Last day to change to an approved lower level course or prerequisite

Jan 31: Hourly test #1

Feb 03: End of tuition refund period

Feb 28: Hourly test #2

Oct 19: Last day to drop the course with no grade reported

Mar 27: Hourly test #3

Apr 18: Hourly test #4

May 1: Final Examination 10:00 am - 12:00 noon

SUGGESTED PROBLEMS: These are listed on the **Tentative Schedule** below. They will not be collected or graded. However, solving these problems is essential for keeping up with this class. You should work out these problems and as many of the other problems from each section of the text that is covered in this course in order to be prepared for examinations. In solving these problems, you should strive for clearly written solutions. Being able to demonstrate your understanding in this fashion will be required on all examinations.

MATH LEARNING CENTER: The MSU Mathematics Learning Center is located on the first floor of the A-Wing of Wells Hall. The Learning Center provides assistance for students in this class. Some of you might find this helpful. If you go to the window in the lobby of the A-Wing of Wells Hall by the elevators, a monitor will direct you to the appropriate room for this class. In the Learning Center, by working with other students and experienced staff, you will come to better understand the concepts covered in this class. You can find more information about the Mathematics Learning Center at the MSU Mathematics Department webpage for this center:

<http://www.math.msu.edu/CurrentStudents/LearningCenter/Default.aspx>

QUIZZES: A quiz will be given in each recitation section except on weeks when there is an hour test.

HOURLY TESTS: There will be 4 of these. All but the last will be given in the recitation section.

MAKE-UP TEST POLICY: Make-up hourly tests will only be given in case of a medical or emergency absence, and only with a written excuse from a doctor or other appropriate individual. Such exams are only given in extreme cases - which I consider to be sufficiently convincing and serious. There will be no make-ups for quizzes.

CALCULATORS: None will be allowed for the hourly tests or the final exam.

GRADES: Your course grade will be based on a total of 600 points – each hourly test will count 100 points – your lowest test score will be dropped, the final exam will count 200 points, and your quiz percentage will count 100 points. The grading scale will be:

90 – 100% : 4.0 83 – 89% : 3.5 75 – 82% : 3.0 68 – 74% : 2.5
60 – 67% : 2.0 55 – 59% : 1.5 50 – 54% : 1.0 0 – 49% : 0.0
(Divide total points by 6 to find this number.)

GRADE-CHANGE POLICY: If you have any questions regarding the grading of any of your examinations, you should return the examination to me before leaving the classroom and plan to speak with me about your concerns during my office hours. Otherwise, once your examination has left the classroom, no grading changes will be made.

ATTENDANCE: **Students are expected to attend all class meetings.** Any changes in this syllabus or in the scheduling of tests or quizzes will be announced during class meetings.

DETAILED COURSE OUTLINE AND HOMEWORK ASSIGNMENTS
(subject to minor changes):

	<i>Section</i>	<i>Homework Assignment</i>
Jan 9	12.1	9, 12, 18, 20, 22, 25, 29, 31, 32, 40, 44, 50, 52, 58
Jan 11	12.2	8, 9, 11, 13, 16, 17, 20, 23, 25, 26, 30, 33, 35, 41, 45, 49
Jan 13	12.3	5, 8, 9, 11, 13, 17, 18, 25, 27, 41, 43
Jan 18	12.4	3, 8, 11, 13, 15, 17, 23, 25, 27, 28, 31, 33, 38, 44
Jan 20	12.5	3, 4, 5, 9, 10, 20, 23, 25, 26, 27, 29, 31
Jan 23	12.5	35, 37, 39, 42, 45, 47, 51, 53, 55, 57, 58, 61, 65, 66, 68, 69
Jan 25	12.6	1-11(odd), 15, 17, 19, 21, 22, 26, 30, 33-43(odd)
Jan 27	13.1-2	13.1: 1-11(odd), 14, 17, 19, 22, 25, 27; 13.2: 3, 6, 11, 13, 16, 17
Jan 30		Review
Jan 31	Tues	Hourly Test #1 on Ch. 12 and Ch. 13 Sec. 1, 2
Feb 1	13.3	1, 3, 5, 8, 11, 13, 15
Feb 3	14.1	27, 28, 31-36(all), 39, 40, 43, 50, 53, 55, 59, 61, 62, 68
Feb 6	14.2	8, 11, 12, 17, 18, 28, 33, 34, 35, 36, 41, 43, 47, 55, 58, 60
Feb 8	14.3	7, 8, 11, 12, 13, 15, 16, 17, 19, 27, 29, 32, 43, 45, 46, 51, 53, 66, 73, 75, 80

Feb 10	14.4	3, 6, 7, 9, 11, 12, 15, 17, 18, 21, 24, 27, 28, 29, 31, 32, 35, 37, 38, 43, 49
Feb 13	14.5	1-4, 7-9, 11, 14 - 26
Feb 15	14.6	4, 5, 7, 9, 10, 13, 17
Feb 17	14.6	19, 22, 25, 28, 29, 39, 40
Feb 20	14.7	1-3, 13, 15, 20, 31, 37, 42, 46, 47
Feb 22	14.7 - 8	14.7: 5, 7, 9, 33, 35; 14.8: 1-13(odd)
Feb 24	14.8	17-29(odd)
Feb 27		Review
Feb 28	Tues	Hourly Test #2 on Ch. 14 Sec. 1-8
Feb 29	15.1-2	15.1: 3-11(odd), 15.2: 25, 26, 29-41(odd)
Mar 2	15.2	47-63(odd)
Mar 12	15.3&6	15.3: 3,7, 15, 16; 15.6: 3, 5, 6, 12, 13
Mar 14	15.4	10, 13, 17, 19, 20, 29, 32, 39, 40. p.898#51
Mar 16	15.5	1, 3, 5, 6, 9, 13, 15, 16, 21, 23, 24, 27, 28, 29, 31, 33, 34, 39, 41, 43
Mar 19	15.7	5, 7, 10, 13, 15, 16, 17
Mar 21	15.7	21, 23, 26, 29, 34, 35, 45, 49, 51, 52, 55, 56, 58, 61, 62
Mar 23	16.1	1-8(all), 11,13, 15, 29, 33, 36
Mar 26		Review
Mar 27	Tues	Hourly Test #3 covering Ch. 15
Mar 28	16.2	1, 3, 9, 19, 20, 23, 25, 27
Mar 30	16.2	29, 35, 38, 39, 47, 49, 52
Apr 2	16.3	1-21(odd)
Apr 4	16.3-4	16.3: 25-30, 31, 33, 34; 16.4: 7, 8, 15, 17
Apr 6	16.4	19, 23-25, 27, 30, 33
Apr 9	16.5	37, 39, 41, 44-47
Apr 11	16.6	29, 31, 34-36, 39, 41, 43
Apr 13	16.7	2, 5, 8, 11, 12, 19, 21, 22
Apr 16	16.8	5-11(odd), 14, 16, 17, 21-23, 25, 26
Apr 17	Tues	Review in recitation section
Apr 18	Wed	Hourly Test #4 covering Ch. 16
Apr 20		Review of test
Apr 23		Review
Apr 25		Review
Apr 27		Review
May 1		Final Exam 10:00 am – 12:00 noon