

Advanced Calculus and Applications I **(MTH 437, Fall 2019)**

Time: 10:00-10:50am, MWF

Instructor: Li Wu

Phone: 874-5595

Office Hour: MW 12:00- 1:00pm

Location: Lippitt 205

Office: 202K Lippitt

Email: liwu@math.uri.edu

Prerequisite: MTH243 for MTH437, MTH437 for MTH438

Textbooks: Marsden / Tromba, *Vector Calculus*, 5th edition, plus supplemental handouts.

Course Description: MTH 437 and MTH 438 are intended for a one-year course in the calculus of functions of several variables, vector analysis, and Fourier series. Much of the basic theory as well as many concrete examples will be presented. These two courses have been revised to make them more useful to students of applied mathematics, physical science, and engineering. Intuitive understanding and computational skills are important at this level. Besides covering most chapters from text books, extra materials about sequences, series, uniform convergence, Fourier series, Laplace transforms will be provided.

MTH 437 First part of the text book, together with some extra materials beyond the text.

Sakai: We use Sakai through out the semester. I'll post and email announcements, assignments, ... on Sakai. Make sure you register on Sakai!

Grading Policy:

Home Work 30%;

Midterm Exam 30% (6-8pm, October 23);

Final Exam 40% (11:30-2:30, December 18th);

Homework: Some suggested homework problems are listed below. You are expected to do all of the problems. The instructor will grade some problems.

Section	Homework Problems	Section	Homework Problems
1.1	11,14,18,20,22,29,30	3.1	4,7,9,11,19,21,23
1.2	5,14,18,21,24	3.2	3,5
1.3	6,18,21,25,29,36	3.3	2,4,13,18,21,25,29,36,42
1.5	2,8,10,12	3.4	2,4,7,10,18,23,28,31
2.2	5,7,9,16	3.5	1,2,6,7,12
2.3	2,4,7,8,11,16	5.1	1,3,6,10
2.4	2,7,8,16	5.2	2,5,8,9,11
2.5	3,4,9,18,19,20,28	5.3	2,5,12,14
2.6	1,5,15,16,20,22	5.4	2,3,6,8,10,12,14
	Extra Material	5.5	4,5,7,9,14,23,28
	Mid-Term Exam	6.4	2,5,6,7,11,16,17



Enjoy Math 437 and Enjoy this semester!

