

Department of Mathematical Sciences
WORCESTER POLYTECHNIC INSTITUTE
MA 3832, Advanced Calculus - 2, Term D01,
web page for the course: <http://www.wpi.edu/~bogdand/acalc2/>

Advanced Calculus 2 SYLLABUS

Instructor: Bogdan Doytchinov, e-mail: bogdand@wpi.edu
Office: SH105D, Office hours: Mo 11:00-11:50am, Tu 1:00-2:50pm, Th 9:00-9:50am

TEXT. Thomson, Bruckner, Bruckner *Elementary Real Analysis*, Prentice Hall.

COURSE CONTENTS. This is the second part of the Advanced Calculus course. It continues further the rigorous presentation of the important concepts of classical real analysis.

Here are some topics that we are planning to go over this term:

- elementary topology of metric spaces,
- limits and continuity in metric spaces,
- differentiation in Euclidean spaces,
- other topics in multivariate calculus.

Some of these topics were started last term, we will go somewhat deeper into them. The planned coverage is Chapers 5, 6, 7 (parts), 11, 12 (parts), 13 – not necessarily in the same order. This is an ambitious plan and we might not get to cover everything.

LECTURES. There are four lectures per week. There are no conferences, labs or MASH sessions. You are expected to spend about 15 hours per week on the course. This means that more than $2/3$ of the learning for this course will take place outside of class. A serious attitude and good working habits are paramount.

You are expected to attend all lectures. If you miss a class, it is your responsibility to make a copy of the classnotes from another student and make sure you learn what you have missed.

HOMEWORK. Homework will be assigned four times throughout the term, and will always be due a week from the day it is assigned. It is an important part of the course. Many of the homework problems will not be a rehashing of class examples, but will add to the material studied, stretch your minds, and expand your horizons. Homework will account for 30% of your grade. The lowest homework score will be dropped.

Since there will be only two exams and no in-class activities, you should take your homework assignments seriously.

GRADING POLICY. There will be an in-class 50-minute Midterm Exam (tentatively, on April 3) and a Final exam the form of which will be determined later.

The grade will be calculated in the following way:

30% of the grade come from the three best homeworks.

30% of the grade come from the Midterm Exam,

40% of the grade come from the Final Exam.

These scores are combined to give a final number of points, between 0 and 100. Point ranges for the final grades are approximately given by:

A: 100-90

B: 89-80

C: 79-65

As usual, these cut-offs give you a guaranteed minimal grade; your actual grade could be higher.