Course Description
MA 646, Real Analysis II
Spring 2014
Department of Mathematics, UAB

Course Instructor: Dr. Günter Stolz
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Office Hours: by appointment, or anytime when in office

Meeting times: Tue, Thu, 3:30pm to 4:45pm (preferably until 5:00pm)
Meeting location: CH 458

Instead of a Textbook: No book purchase is required. Initially, I will closely follow the lecture notes by Dr. Weikard, Real Analysis, 2008/2009, which can be found at

http://people.cas.uab.edu/~weikard/teaching/reals.pdf

These lecture notes contain no proofs, only some sketches. Detailed proofs will be presented in class. Later in the semester I will also use other materials which will be provided in class. The goal is to roughly cover the material in Chapters 5, 6 and 7 of the Weikard notes (Chapters 2 to 4 were covered in Real Analysis I).

Another very good (and quite extensive) set of lectures notes for Real Analysis, including detailed proofs, was created in 2012/2013 by Dr. Chernov with the extensive help by Michael Pogwizd. These notes can be found at

http://people.cas.uab.edu/~mosya/teaching/00_Main.pdf

The material covered in Dr. Chernov’s notes is very similar to what we will cover, but not always in exactly the same order. I will occasionally refer to his notes for details not covered in class.

Most or all of the material covered in the Real Analysis I/II sequence can be found in the following books (among numerous others):

• G. B. Folland, Real Analysis: Modern Techniques and their Applications
• A. N. Kolmogorov and S. V. Fomin, Introductory Real Analysis
• W. Rudin, Real and Complex Analysis (see Reading Room)

These are good books for further reading, if desired, but this is not necessary.

Important dates:
Spring Break: March 24 to 28
Last Class: Thursday, April 17
Final Exam: Tuesday, April 22, 4:15pm to 6:45pm, or at a different time which all can agree on
Grades:
In assigning final letter grades, your work will be weighed as follows:

Weekly Homework: 60%
Final Exam: 40%

Approximately four to five homework problems will be assigned per week. The
problem set will be provided by email. It is similar but not identical to the problems
in Dr. Weikard’s notes. Written solutions are generally due a week after assignment.
For a letter grade of A an average of approximately 75% is expected, for a B 50%.

Generally, there won’t be enough time in class to discuss homework problems.
If there is interest, additional 1-hour weekly meetings can be arranged to discuss
past homework or work additional problems.

Joint Program Exam:
One of the goals of the Real Analysis I+II sequence is to prepare for the Joint
Program Exam in Real Analysis. The best way to get ready for this is to work many
problems, both homework problems from class and former JPE problems available
at

https://secure.cas.uab.edu/mathshare/files/jpe.html

I will also frequently include former JPE problems on homework.