Syllabus for

Introduction to Mathematical Reasoning

Math 300 A - Winter 2013

Lecturer: Dr. Matthew M. Conroy

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My office hour times can be found at the web page above. Office hours are times when you can speak to me without making an appointment - just stop by.

Send me email or talk to me if you would like to meet me at some other time, or if you have any questions or concerns. in the *subject line*. Also, start the email message with my name so I know who you think you are writing to, and sign it so I know how to address a reply.

Purpose of the course: This course will introduce you to mathematical proof techniques and a variety of related general-purpose mathematical topics. By the end of this course, you will have seen, analyzed and written many proofs, in several styles. You will have the foundation needed to understand the structure of proofs you will see in other mathematics courses.

Text: How To Prove It: A Structured Approach, 2nd edition, by Daniel J. Velleman

Lectures: There are lectures each Monday, Wednesday and Friday. You are responsible for knowing all that goes on in lecture, but you are not explicitly required to attend. If you miss a lecture, you should copy notes from at least one other student in the class, and repay them, e.g., by buying them food or drink.

Homework: Homework assignments will be listed on the class website. Generally, there will be an assignment due each Friday after the first week of class. In addition, I may assign problems in class, also, which may or may not appear on the class website.

You are encouraged to work with other students to complete the homework assignments. However, the work you turn in should be your own. Do not copy another student's work, and do not allow your work to be copied.

There will be homework work sessions in Smith 311, from 3:30-5:00 PM, on Thursdays when a homework assignment is due the next day.

Late homework will not be accepted. However, you are allowed to miss *one* homework assignment, for any reason, without penalty to your grade. This is implemented by dropping each student's lowest homework score when calculating each student's homework average. It is always to your advantage to turn homework in rather than not.

Exams: There will be one midterm exam on Wednesday, January 30 and a final exam on Wednesday, March 20.

Exams are cumulative: you may be asked to solve problems using any techniques discussed up to that point.

Make-up exams will not be given, so don't miss exams. If you *do* miss an exam due to some unavoidable, unforeseen event (e.g. sudden illness, traffic accident, etc.) you should contact me *as soon as possible* to have the best chance of arranging some kind of adjustment.

Grading: Your grade will be made up of the following:

 $\begin{array}{ll} \text{homework} & 50 \ \% \\ \text{midterm exams} & 20 \ \% \ \text{each} \\ \text{final exam} & 30 \ \% \end{array}$

Grades **are** curved in that your course grade will reflect your performance relative to the rest of the class rather than relative to some fixed percentage scheme (e.g., 90-80-70-60 etc.). Historically, the median grade in Math 300 has been in the range of 2.7-3.1.

If you feel that an error in grading has occurred, you have **one week** after the exam or homework is returned to bring it to Dr. Conroy's attention. You should stop by Dr. Conroy's office hours to discuss it.