

MATH 310 - SPRING 2014

Instructor: Dr. Kate Truman

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Office: Math 1113

Office Hours: 9:30-9:55 MWF and by appointment - please contact me if you cannot make these hours

Course Web Page: <http://www.math.umd.edu/~rendke/Math310/>

The canvas or the webpage is the definitive source for up to date information about the class. I've been using canvas more and will likely post updates there.

Classroom and Time: MTH 0305 MWF 10:00-10:50

Text: *Mathematical Proofs* by Chartrand, Polimeni and Zhang, 3rd edition

Recommended: *Advanced Calculus* by Fitzpatrick, 2nd edition, AMS

Prerequisite: Math141

Corequisite: Math241 Please note that Math240 is also a prerequisite for Math403, 405, and 410.

Math310 is an introduction to proof course. For most students it will be used as a preparation for Math410, but it is also foundational knowledge that all math majors should have. The goal is to teach you to introductory theoretical material and review some calculus with proof, so that you will be able to succeed in proof based courses. The majority of the course will be spent on introducing the theory of mathematics where you learn different methods of proof and how to apply each technique to different situations. About one third of the course will be spent reviewing sequences and some introductory calculus material with proof, though I may add some introductory number theory or algebra to the end of the course. **I expect everyone to work hard and attend class; I have high expectation for everyone. If you need help SEE ME - do not wait until the last minute to do so!**

Grading:

3 in-class Exams (100 pts each)	300 points
15 Homeworks (20 pts each)	260 points (drop 2)
17 Quizzes (10 pts each)	140 points (drop 3)
Final Exam	200 points
Total	900 points

Rough Schedule: We will cover Chapters 0 through 10 and 12 of Chartrand, Polimeni and Zhang, as well as parts of Chapters 1, 2 and 3 of Fitzpatrick. If we add number or group theory it will come from Chartrand. The tentative exam dates are:

- Exam 1: Chapters 0–6: February 21st
- Exam 2: Chapters 7–10, Pigeon Hole Principle, Ch 1 Fitzpatrick : April 4th
- Exam 3: 12.1 of Chartrand and Chapters 2–3 of Fitzpatrick: May 9th

Homework 1 is due January 31st and you will have a Quiz on Chapter 0 that day.

Final Exam: The final exam is Wednesday, May 21st, 8:00am–10:00am, in our class room. The final exam is cumulative, but usually emphasizes the third exam.

Homework: I *encourage* you to work in groups on the homework assignments. Homework will be assigned daily, and collected every other class day. You will have some problems assigned from the textbook and some PDF problem sets. Both will be listed on canvas and/or my website. Only selected questions will be graded (for correctness), but all problems must be turned in. **The questions must be done in order and no more than two problems per side of each page.** (So no more than 4 per page.) Each page must include your name and it would be best to staple your pages together. **You must cite everyone you work with on the homework, including tutors.** All odd problems have solutions in the back of the text. You should only look at the solutions if you are really stuck and try to only look as far into the solution as you need. It is possible that the solutions manual is available to download online, though probably not legally. If you copy any solutions - the manual's, the back of the textbook's, your friend's, your tutor's, or anyone else's - you are cheating. Furthermore you are harming yourself as you will not be prepared for the quizzes or exams.

Late homework will not be accepted, except in extreme cases.

Quizzes: Quizzes will be on the day following homework collection date (on the homework collected) and days before exams (on all material since the last exam). Exam and Quiz questions will be similar if not identical to homework questions. Definitions, Theorems, proof processes and other major ideas may show up on Quizzes.

Make-up policy: Exam makeups will only be given for University Excused Absences. Any student with a valid reason to be excused from an exam must contact me prior to the exam, either by email or by phone (leave a message at 301.405.5047), and present documentation at the next class session attended. If you need to be excused for a religious observance, you should let me know as soon as possible, but in any case no later than the end of the schedule adjustment period. As per the University's illness policy, if you miss a class due to illness, you must make a reasonable effort to contact me prior to class and provide me with a note signed by you detailing the date and reason for absence at the next class attended. If you miss more than two classes or an exam you will be required to provide a documentation signed by a health care professional.

Honor Code: You are bound by it and should know it!

Accommodations for Students with Disabilities Accommodations will be made as appropriate. Please see me in my office **before the end of schedule adjustment** with your documentation from DSS if you require accommodations.

I reserve the right to give unannounced quizzes and make changes in the syllabus that I feel are necessary. Any changes in the syllabus will be announced in class and posted to the website and/or canvas. If you miss class you are responsible for all material covered and for turning in all work in a timely manner - including assignments on the missed material.