Math 300, Transition to Advanced Mathematics   Fall 2014

Instructor: Prof. Adela Vraciu

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Office Hours: Tuesday and Thursday 2–3:30, or by appointment.

Prerequisites: Math 142.

Textbook: *How to read and do proofs,* by Daniel Solow, 6th edition, Wiley. We will cover Chapters 1–13, and Appendix A. The companion website www.wiley.com/college/solow contains lecture videos and solutions to selected problems.

Course Description: Rigor of mathematical thinking and proof writing via logic, sets, and functions. Intended to bridge the gap between lower-level (computational-based) and upper-level (proof-based) mathematics courses.

Grades: The following table shows how each component of the course counts toward your final grade:

Three exams during the semester	$3 \times$ 10 %=30%
Final Exam	35%
Homework	15%
Quizzes	10%
Class Participation	10 %

A 90/80/70 scale (possibly with small adjustments in the students' favor) will be used when assigning letter grades. The final exam will be cumulative. All exams are closed books/notes. Calculators are not allowed. Your score in the final exam, if better, may replace the lowest of your scores for the three exams during the semester.

Exams: The following are the dates for the three exams that take place during the semester:

Exam 1: September 25; **Exam 2:** October 28; **Exam 3:** November 20.

Final Exam: December 11, 9–11:30 a.m.

No exam scores are dropped. In case of documented illness, a make-up test will be given. I will replace the lowest exam score with the score on the final exam if this works in the student's favor.

Homework: Homework will be assigned every day and it will be collected in the beginning of the following class period. LATE HOMEWORK WILL NOT BE ACCEPTED. There will be no homework assigned during the weeks when an exam is scheduled.

You are ALWAYS expected to EXPLAIN YOUR ANSWERS. Answers that are not explained may not receive credit. This also applies to quizzes and exams.

Quizzes: There will be a brief quiz in the beginning of each class (with the exception of the days when there is an exam). The quiz will consist of one problem chosen from a list of problems from the book that have solutions available online. The lowest two quiz scores will be dropped.

Calculators: You WILL NOT need a calculator for this class.

Class participation: Class participation is required. The University of South Carolina Bulletin states that: "*Students are obligated to complete all assigned work promptly, to attend class regularly, and to participate in whatever class discussion may occur. Absence from more than 10 percent of the scheduled class sessions, whether excused or unexcused, is excessive and the instructor may choose to exact a grade penalty for such absences*".

Attendance will be taken and considered in determined the class participation portion of your grade. You will be required to work in small groups during class and present work on the blackboard. YOU SHOULD BRING THE TEXTBOOK TO CLASS EVERY DAY,since the group work that you will do in class will usually consist of working through the problems from the book.

Last day to drop without a grade of "WF" being recorded: October 9.

Disabilities: Please let me know if you have a disability that makes special arrangements necessary.

Learning Outcomes: Students will become familiar with the mathematical style of writing a proof and gain the necessary background for more advanced proof-based classes. Students will be able to use truth tables, quantifiers, basic concepts of set theory, mathematical induction.