

**ADMINISTRATIVE INFORMATION**

- Professor:** John M. Lee  
Phone: 206-543-1735  
Office: Padelford C-546  
Office Hours: Mondays & Tuesdays 2:30–3:20  
E-mail: [lee@math.washington.edu](mailto:lee@math.washington.edu)
- Class Web Site:** [www.math.washington.edu/~lee/Courses/300-2009](http://www.math.washington.edu/~lee/Courses/300-2009),  
or from the Math Dept. home page, choose *Class Web Pages*.
- Class Meetings:** Math 300A: MWF 11:30–12:20, Sieg 226  
Math 300B: MWF 12:30–1:20, Balmer 408
- Required Text:** *An Introduction to Mathematical Reasoning*, by Peter J. Eccles
- Exams:** Midterm: Friday, November 6, in class  
Final (300A): Wednesday, Dec. 16, 2:30–4:20 p.m.  
Final (300B): Thursday, Dec. 17, 8:30–10:20 a.m.
- Prerequisite:** 2.0 or higher in one of the following: Math 125, 135, or 145.

**COURSE CONTENT**

Here's the official catalog description: *Mathematical arguments and the writing of proofs in an elementary setting. Elementary set theory, elementary examples of functions and operations on functions, the principle of induction, counting, elementary number theory, elementary combinatorics, recurrence relations.*

We will cover Parts I–III (Chapters 1–14) of the textbook. If time permits, we might dip into Parts IV–VI.

This course will probably be unlike any other math course you've taken. Most of your courses so far have concentrated on helping you learn algorithms for solving particular types of problems; most courses after this one will focus instead on deep conceptual understanding and deductive reasoning. This course is supposed to be the “bridge” between the two ways of approaching mathematics. It will give you tools for thinking mathematically, reading critically and with understanding, solving conceptual problems, and writing mathematical proofs. You will use these tools in every math course you take from now on (and potentially in many other courses as well!).

**REGISTRATION INFORMATION**

All three sections of Math 300 have been filled for several weeks. If you are not currently enrolled, the only way to get in is by registering online when space becomes available; I will not be allowing overloads. Don't give up hope: It is likely that a few spaces will open up during the first two weeks of classes, as people decide to drop the course. If you're hoping to register, be sure to attend all classes and do all the assigned work. Meanwhile, if you need Math 300 to graduate, you should talk with the math advising office about alternative plans.

## **REQUIREMENTS**

### **Reading**

After each class, I'll assign part of the textbook for you to read, usually about the material that will be discussed in the next few lectures. There will also be a few handouts to read during the quarter. All reading assignments are required.

### **Classes**

Class attendance is required. In addition to lectures, discussions, and practice exercises designed to clarify the reading and prepare you for the homework, I will also be introducing new concepts in class that are not covered in either the textbook or the handouts. Although I won't keep official attendance records, missing classes unnecessarily will dramatically reduce your chances of doing well in the course. If you must miss a class for some unavoidable reason, you should find someone who takes careful and complete notes, and arrange to get a copy of them.

### **Math 300 Blog**

I've set up a Math 300 blog, linked from the class web page, where I will post brief lecture summaries, reading assignments, homework assignments, questions for discussion, and other comments about the course. You should check into the blog after each class. At least once a week, before the next Monday class, you're required to respond with a post of your own. Your response must be at least two paragraphs long, and should address the questions that I pose in my blog post. If you wish to write about specific homework problems, please confine your comments to general questions and suggestions about how to get started. Part of your grade will be based on whether you've submitted all of the required posts, and made a good-faith effort to address the questions I asked. You may miss at most one week's post and still receive full credit.

### **Homework Assignments**

Each week, there will be a written homework assignment to turn in for a grade. Assignments will be posted on the blog after each Wednesday and Friday class, and are due in class the following Wednesday. These assignments are the heart of the course. Most of them will take some time to think about, so I caution you against putting them off until the evening before they're due. Late homework will not be accepted except in extraordinary circumstances and with advance permission. More details about the homework assignments will be given in an upcoming handout.

### **Exams**

There will be a 50-minute midterm and a 110-minute final. Both will be closed-book, closed-notes. You may not take exams other than at the scheduled times except for serious illness, religious reasons, or other extraordinary circumstances of grave personal import. If you know in advance that you cannot take the exam at the scheduled time for your class, you may arrange to take it at the scheduled time for my other section of Math 300. To do so, you must submit a written or email request to me no later than Wednesday, December 2. If you are unable to take an exam for medical reasons, you must contact me before the exam or as soon as medically possible thereafter, and (except for self-treated cases of flu) you will need to provide a written medical excuse.

### **Grades**

Your grade will be based on a weighted average of the following scores.

- 35% Homework assignments
- 5% Blog posts
- 20% Midterm exam
- 35% Final exam