

Class: 1:25–2:15 MWF, Boyd 221

Instructor: Dr. Ted Ashton
Office: Boyd 603c
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Office Hours: After class for an hour
or by appointment

Needed for class:

- *Mathematical Proofs: A Transition to Advanced Mathematics*,
by Chartrand, Polimeni and Zhang (ISBN 0-201-71090-0)

Grades:

Grades come from
60% Exams
30% Homework
10% Quizzes and class participation

Grades will be available during the semester via the WebCT system found at <http://webct.uga.edu>. Simply log in with your MyID and select MATH3200 from the courses listed.

Exams: There will be either three exams during the semester (including the final). Please do not assume that an exam can be made up if missed. If you have a conflict with exam scheduling, contact me prior to the exam to make arrangements.

Quizzes: Quizzes will be unannounced and cannot be made up.

Homework: The homework is a large part of this class, as will be in-class participation. The purpose of this class is to make the transition from math as calculation to math as reasoning. Many of the theorems we prove will be simple so as to allow us to focus on the techniques of proving rather than on the calculations.

Homework will be due at class time. Since our focus is on learning the techniques of higher math, the homework will be graded for content, style and presentation. Homework written in a clear hand or typed will be worth more than homework written sloppily. Grammar and spelling will count as will clarity of thought and flow of sentence. Your proof should make sense when read out loud. You are welcome to work with others on the homework, but the work turned in needs (of course) to be yours alone *and you need to note on your homework with whom you collaborated*. You are also welcome to ask me questions (I am available during office hours and am also happy to answer questions by telephone or email or in person whenever I am in my office).

Typing your homework: If you wish to type your homework, I highly recommend using $\text{\LaTeX} 2_{\epsilon}$ to do so. If you have a PC, you'll probably want MikTeX (miktex.org) and either WinEdt (winedt.com) or LyX (lyx.org). If you are using a Mac, you can use `fink` to install `tetex` and then you'll want either TeXShop (www.uoregon.edu/~koch/texshop) or LyX (available via `fink`). I am glad to help get you started with \LaTeX . Also, I have put a (free) book on WebCT which can help get you started with \LaTeX .

Calculators: You are unlikely to find yourself in need of a calculator during this course.

Academic Honesty: UGA has an academic honesty policy, and you are responsible for knowing what is in it and abiding by it. The policy may be found at <http://www.uga.edu/ovpi/honesty/ahpd.htm>

Tentative Schedule			
Date	Sections	Date	Sections
17 Aug	Intro, Ch. 0		
20 Aug	§1.1, 1.2	15 Oct	§9.2, begin 9.3
22 Aug	§1.3, 1.4	17 Oct	§9.3, 9.4
24 Aug	§1.5, 1.6	19 Oct	§9.5, 9.6
27 Aug	§1.7, 7.1, 7.2	22 Oct	§9.7
29 Aug	§equiv/ord rel., W.O.P.	24 Oct	§9.8
31 Aug	§8.1	26 Oct	Fall Break
3 Sep	§8.2, 1-1/onto fun.	29 Oct	Review for Test 2
5 Sep	§2.1–2.3	31 Oct	Test 2 (Ch. 3, 4, 9)
7 Sep	§2.4	2 Nov	§5.1, 5.2
10 Sep	§2.5	5 Nov	§5.3, 5.4
12 Sep	§2.6, 2.7	7 Nov	§5.5, 5.6
14 Sep	§2.8, 2.9	9 Nov	§6.1
17 Sep	§2.10, 2.11	12 Nov	§6.2, 6.3
19 Sep	§3.1, begin 3.2	14 Nov	§6.4, 6.5
21 Sep	§3.2	16 Nov	§6.6
24 Sep	Review for Test 1	19 Nov	§6.7
26 Sep	Test 1 (Set Theory & Logic)	21 Nov	Thanksgiving Break
28 Sep	§3.3	23 Nov	Thanksgiving Break
1 Oct	§3.4, 3.5	26 Nov	§7.3
3 Oct	§4.1	28 Nov	§7.4
5 Oct	§4.2, 4.3	30 Nov	§7.5, 7.6
8 Oct	§4.4, 4.5	3 Dec	§8.3, 8.4
10 Oct	§4.6	4 Dec	§8.5
12 Oct	§9.1, begin 9.2	5 Dec	§8.6, 8.7
		7 Dec	Review for Final
		14 Dec	Final Exam (12:00–3:00)

HOMEWORK:

Due Problems

24 Aug	1.1–1.8, 1.13, 1.16, 1.17, 1.18
31 Aug	1.21, 1.24, 1.25, 1.28, 7.1, 7.3, 7.7
7 Sep	8.2–8.4, 8.8, 8.9, 8.12, 2.1, 2.2, 2.5
14 Sep	2.9, 2.10, 2.11, 2.12, 2.14,
21 Sep	2.16, 2.18, 2.19, 2.21, 2.23, 2.27, 2.28
30 Nov	7.16, 7.20, 7.27, 7.41
7 Dec	8.13, 8.14, 8.22, 8.26, 8.32

The following proofs may be submitted at any time until Dec 7. Each may be submitted as many times as is necessary to get it correct, but no credit will be given until it is correct:

3.1, 3.5, 3.7, 3.13, 3.17, 3.18, 3.20, 3.21, 3.22,
 4.2, 4.6, 4.9, 4.13, 4.19, 4.22, 4.24, 4.28, 4.33, 4.37, 4.38, 4.41,
 9.1, 9.4, 9.5, 9.7, 9.16, 9.19, 9.27, 9.29, 9.33, 9.37, 9.39,
 5.5, 5.7, 5.9, 5.12, 5.14, 5.15, 5.17, 5.19, 5.21,
 6.1, 6.14, 6.18, 6.22, 6.25, 6.35, 6.36, 6.37, 6.40,
 7.19, 7.24, 7.25, 7.26,
 8.11, 8.19, 8.20