MATH 3200: Introduction to Higher Mathematics, Fall 2011

Lecture: Boyd 302, MWF 9:05-9:55  
Instructor: Dr. Brian Boe
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Office: Boyd 601B  
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Class Web Page: [http://www.math.uga.edu/~brian/Courses/3200.html](http://www.math.uga.edu/~brian/Courses/3200.html)

Office Hours: M 12:15-1:15 pm, W 8:00-9:00 am, F 10:00-11:00 am (tentative)

Optional: How to Think Like a Mathematician: A Companion to Undergraduate Mathematics, by Kevin Houston.

Course Objectives: This course is designed to provide a transition from introductory mathematics courses (e.g., calculus), which are generally computational, to upper-level mathematics courses (e.g., abstract algebra, real analysis, number theory), which are proof-based. The main objective of this course is to teach students to think and write in rigorous mathematical style. You will likely find this course to be very different from the mathematics courses you have had before. The focus will be on studying the proofs of theorems, rather than applying theorems to solve problems. You will be learning to communicate your mathematical understanding clearly and correctly to others, both orally and in writing. Because you will be looking at mathematics at a much deeper level than you have in the past, you will likely find this course to be quite challenging.

Grading: Course grades will be weighted according to the following scale:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Homework and participation</td>
<td>25%</td>
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<tr>
<td>Three tests</td>
<td>45%</td>
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<tr>
<td>Final exam (comprehensive)</td>
<td>30%</td>
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Exams: The in-class midterm tests and the final exam are tentatively scheduled as follows:

- Test 1: Wed. Sept. 21
- Test 2: Wed. Oct. 19
- Test 3: Wed. Nov. 16
- Final Exam: Fri. Dec. 9, 8–11am

I do not give make-up exams. Please inform me as soon as possible if you have a conflict with one of the test dates.

Homework: Written homework will be assigned and collected weekly. A complete and up-to-date list of all homework assignments will be posted on the course web page. Homework will be due at the beginning of class. Late homework will not be accepted.

Homework is probably the most important part of this course. Much of your learning will take place as you do the homework. You are encouraged to work with classmates while solving homework problems. Learning to explain clearly your own reasoning, and learning to understand the reasoning
of others are important goals of this course. However, the work you turn in must represent your
own personal understanding of the material. In particular, you must write up your assignments by
yourself.

After the homework is turned in, students will go to the board to present their solutions to a few of
the problems, for feedback and constructive criticism by the class. You are expected to participate
in both aspects of this process.

**Attendance and class participation:** You are expected to attend class every day, participate in
class, read the textbook, and do homework regularly. Students who incur an excessive number of
absences may be withdrawn from the course at the discretion of the instructor. (Excessive meansour or more unexcused absences.) You are encouraged to attend office hours; however, I expect
that you will have thought about the questions that you would like to ask before you come.

**Academic Honesty:** All students are responsible for maintaining the highest standards of aca-
demic honesty and integrity in every phase of their academic careers. This includes all homework
assignments. The penalties for academic dishonesty are severe and ignorance is not an acceptable
defense. See [http://www.uga.edu/honesty](http://www.uga.edu/honesty).

**Copyright:** All of the course tests and exams are copyright by the instructor, even if the © symbol
does not appear on them. You may not upload or post copies of these materials to the web without
my explicit written permission.

**Electronics:** As a courtesy to me and to your classmates, please turn off and put away all cell
phones and computers during class time.

**Changes:** The course syllabus provides a general plan for the course; deviations may be necessary.
Any modifications will be prominently announced on the course website.