

# MATH 4317 SYLLABUS

SUMMER 2007

Course Number: Math 4317 AG, AU

Course Name: Analysis I

Lecture Time: TuTh 12:00–1:45 p.m.

Lecture Room: Skiles 246

Instructor: Dr. Christopher Heil  
Office: Skiles 260  
Office Phone: 404-894-9231  
Email Address: [heil@math.gatech.edu](mailto:heil@math.gatech.edu)

Course Web Page: <http://www.math.gatech.edu/~heil>

Office Hours: TuThF 10:00-11:00, and by appointment

Contacting me: I encourage you to contact me at any time by email. I try to check email daily and to respond to questions quickly. Please don't be afraid to set up other appointment times if you are having trouble getting in touch with me.

Textbook: *The Elements of Real Analysis*, by Robert G. Bartle

Material: Sections 1–25 (approximately)

Prerequisites: Math 2406 (Abstract Vector Spaces)

**Prerequisites.** This is a *proof-based* course on Real Analysis. One of the main goals of the prerequisite course (MATH 2406) is to teach you proofs and proof-writing. If you haven't taken that course or an equivalent course where you learned to write proofs, you may find it quite difficult to jump into the abstract setting of this course. Unlike calculus, differential equations, etc., there are no *formulas*, only *concepts*, here, and the *proofs* of those concepts—the reasons *why* things are true.

**Academic Dishonesty.** All students are expect to comply with the Georgia Tech Honor Code. Any evidence of cheating or other violations of the Georgia Tech Honor Code will be submitted directly to the Dean of Students. The institute honor code is available at [http://www.deanofstudents.gatech.edu/integrity/policies/honor\\_code.php](http://www.deanofstudents.gatech.edu/integrity/policies/honor_code.php)

**Grading.** We will have 5 homework assignments, two in-class exams, and one final exam. With 6 homeworks, points would be scored as follows.

5 Homeworks	25 points each
Exam I	35 points
Exam II	35 points
<u>Final Exam</u>	<u>55 points</u>
TOTAL	250 points

Letter grades will be based on your accumulated points at the end of the quarter, according to standard 90%, 80%, 70%, 60% cutoffs (although I may adjust the cutoffs downward at the end of the quarter, depending on class distribution):

225–250	A
200–224	B
175–199	C
150–174	D
0–149	F

At the end of the course, I'll evaluate the class distribution and decide if a curve is needed. I'll only curve *down* from the above cutoffs, not up!

**Homework.** Homeworks will be assigned approximately once every two weeks, and will usually be due one week after they are handed out. Homeworks will consist of problems selected from the book or problems that I make up. A subset of these will be selected for grading.

Homeworks should be written on the front side of the page only, and must be stapled. LATE HOMEWORKS WILL NOT BE ACCEPTED.

You are allowed (and encouraged) to work together with other students on the homework, as long as you each INDEPENDENTLY WRITE UP YOUR OWN SOLUTIONS. You are also allowed (and encouraged) to ask me questions, although you should try to think about the problems before asking. I strongly encourage you to work extra problems from the book on your own.

**Exams.** The tentative dates for the exams are:

Exam I	Tuesday, June 12 (in class)
Exam II	Tuesday, July 10 (in class)
Final Exam	Monday, July 30, 8:00–10:50 a.m.

The exams are closed-book and closed-notes, except that you will be allowed to bring one note sheet to each exam. The final is comprehensive.

Makeup exams are given only in extraordinary circumstances.