MATH 4317, ANALYSIS I
COURSE SYLLABUS
SPRING 2018

INSTRUCTOR: ANDRZEJ SWIECH
LECTURES: TR 12:00-1:15 pm, VAN LEER E283
OFFICE: SKILES 206
OFFICE HOURS: M 2:00-3:00 pm, W 1:00-2:00 pm, R 10:00-11:00 am
PHONE: (404) 894-2705
E-MAIL: swiech@math.gatech.edu
COURSE WEB PAGE: http://www.math.gatech.edu/∼swiech/4317s18.html

TEXTBOOK: R. G. Bartle, *The Elements of Real Analysis*, 2nd edition.

MATERIAL TO BE COVERED AND COURSE OBJECTIVES: The course introduces the students to the basic theory of real analysis. Its main objective is in developing the theoretical understanding of the subject. This is a proof based course where you are supposed to learn about the concepts and reasons why they are true. The main themes of the course are the following:

(1) Introduction to set theory (sections 1-3)
(2) The real numbers (sections 4-7)
(3) The topology of Euclidean spaces (sections 8-12)
(4) Convergence (sections 14-18)
(5) Continuous functions (sections 20-26)
(6) Infinite series (sections 34, 35, 37))

GRADING: There will be two one hour tests (February 20 and March 29) and the final exam. Notes and books will not be allowed during the tests and the final. Part of your grade will also depend on the homework. Each test will count for 20% of the final grade, the homework will count for 25%, and the final exam will count for 35%. Your grade will be based on how well you have mastered the theory and how well you can solve problems. You will not be asked to reproduce proofs. To get an A, respectively B,C, and D, your final score will have to be greater than 85%, respectively 70%, 55%, and 40%. Some of these requirements may be lowered if the overall average score of the class is low (i.e. your grade may get curved up).

Please be aware of the Georgia Tech Honor Code and follow it carefully. In particular please make sure that all the work you submit is your own. The Georgia Tech Honor Code can be found at http://www.policylibrary.gatech.edu/student-affairs/code-conduct.