

Math 618-600

Theory of Functions of a Complex Variable II

Harold P. Boas

Spring 1999

General course information

About the course

This is a second course in the theory of functions of one complex variable. It covers the construction and approximation of holomorphic, entire, and meromorphic functions, including Mittag-Leffler's theorem, the factorization theorems of Weierstrass and Hadamard, and the theorems of Runge and Mergelyan; the concept of simple connectivity; the theory of analytic continuation and the idea of a Riemann surface; Picard's theorems; and applications to some problems in functional analysis and number theory.

Textbook The required textbook is *Function Theory of One Complex Variable* by Robert E. Greene and Steven G. Krantz, Wiley, 1997. We will cover chapters 8–15.

Prerequisite The prerequisite for this course is Math 617.

Venue The course meets 12:40–13:30 Monday, Wednesday, and Friday in BLOC 163.

Home page The URL of the home page for the course is
<http://www.math.tamu.edu/~harold.boas/courses/618-1999a/>.

About the instructor

Dr. Harold P. Boas

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Office location 322 Milner Hall

Office hours 10:30–11:30 Monday, Wednesday, and Friday; and by appointment

Office telephone number (409) 845-7269

Course requirements

In this class, there will be a variety of learning experiences, including in-class work, homework, projects, and a final examination (scheduled by the registrar for 10:30–12:30 on Monday, May 10). The grading scheme will be as follows: A = did most of the work well; B = did most of the work adequately; C = did minimal work; F = failed to complete a substantial amount of the required work.