

# Theory of Functions of a Complex Variable II

## The course

The theme of this course on the theory of functions of one complex variable is the construction and approximation of holomorphic, entire, and meromorphic functions. Topics to be discussed include 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*, second edition, by Robert E. Greene and Steven G. Krantz, American Mathematical Society, 2002, ISBN 0-8218-2905-X. The course covers chapters 8–16.

**Prerequisite** The prerequisite for this course is Math 617.

**Venue** The course meets Monday, Wednesday, and Friday, 9:10–10:00 A.M., in BLOC 163.

**Home page** The home page for the course is <http://www.math.tamu.edu/~harold.boas/courses/618-2006a/>.

## The instructor

The instructor is Dr. Harold P. Boas. The email address is [boas@tamu.edu](mailto:boas@tamu.edu) and the telephone number is (979) 845-7269. The instructor's office hours are held in 202 Milner Hall from 1:00 to 2:00 P.M. on Monday, Wednesday, and Friday; and also by appointment.

## Course requirements

There will be a variety of learning experiences in this course, including in-class work, homework, projects, and a final examination (scheduled by the registrar for 8:00–10:00 A.M. on Monday, May 8). 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.

## **Theory of Functions of a Complex Variable II**

### **Other information**

#### **Americans with Disabilities Act Statement from the Department of Student Life**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the office of Disability Services in Cain Hall (telephone 979-845-1637, web site <http://disability.tamu.edu/>).

#### **Academic Integrity Statement from the Aggie Honor System Office**

The Aggie Honor Code states: “An Aggie does not lie, cheat or steal, or tolerate those who do.” Information about the Honor Council Rules and Procedures may be found at the web site <http://www.tamu.edu/aggiehonor/>.