

642:528

METHODS OF APPLIED MATHEMATICS

SPRING 2007

<http://math.rutgers.edu/courses/528/>

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Office Hours: Monday, Busch 4th period, 1:40-3:00, Hill Center 520
Tuesday, Busch 5th period, 3:20-4:40, Hill Center 520
By chance or appointment in Hill Center 520

General: The main material for the course is the theory of functions of a complex variable; we will cover most of chapters 21-24 of Greenberg. At the end of the course we will spend a few lectures on the calculus of variations, following Hildebrand. (These texts are described in more detail below).

Primary text: Greenberg, Michael, D., *Advanced Engineering Mathematics* (2nd edition). Upper Saddle River: Prentice Hall, 1998. This is our text for the material on complex variables.

Secondary text: Hildebrand, Francis B., *Methods of Applied Mathematics* (2nd reprint edition). New York, Dover Publications, 1992. This is our text for the material on the calculus of variations. *It is not necessary to buy this text*; the needed material will be distributed to you either as a handout or through the web. However, it is a classic book and, as a Dover paperback, very reasonably priced, so you might consider buying it anyway.

Web site: Course information will be posted on the web page
<http://math.rutgers.edu/courses/528/>

Homework: Homework problems will be assigned and collected weekly.

Exams: There will be two in-class exams, tentatively scheduled for **Tuesday, February 27** and **Tuesday, April 10**. We will schedule the final exam near the end of the term; it will be sometime during the final exam period (May 3 through May 9), so you should not plan to be out of town during this period. Make-up exams will be given only in the case of well-documented illness or major emergency or (only with permission in advance) of a major outside commitment.

Grading: Grading will be based on a weighted average of homework and exams:

Homework	20%
Class exams 20% each	40%
Final exam	40%