Math 425

Instructor. Prof. J. H. Shapiro
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(for online information about the class).
Office Hours: M 11:30–12:20, WF 1:50–2:40,
and by appointment.


Course Objectives. The course will cover most of
Chapters 1–3, and some of Chapter 4. Emphasis will
be on analytic and harmonic functions, and their con-
nections with complex integrals, power series, confor-
mal mapping. Applications will include the solution
of boundary value problems and the evaluation of real
improper integrals. Additional topics may be covered
if time permits.

Prerequisites. You’ll need a good working knowl-
dge of Calculus, especially material on (1) inflnite se-
ries, and (2) functions of several variables—their conti-
nuity, differentiation, and how to integrate them along
curves. If your background in these areas is weak, you
must be prepared to review when the need arises.

Workload. Students who do well in this course usu-
ally put in six to nine hours of efiort a week outside of
class (2–3 hours for each scheduled class hour).

Grades. Preliminary grade. This will depend solely on exami-
nations and homework: 600 total points, apportioned
as follows.

Hour Exam 1: Wed. Jan. 29 (100 pts)
Hour Exam 2: Fri. Feb. 21 (100 pts)
Hour Exam 3: Mon. April 7 (100 pts)
Final Exam: Tues. April 29,
12:45–2:45 PM (200 pts, comprehensive)
Homework: (100 pts) (see below).

No exams or homework sets will be dropped.

Final Grade: In most cases your preliminary grade will
be your final grade. However, other factors, such as:
exceptional effort, positive contributions to the class-
room experience, improvement over time . . . , can play
a role in raising your preliminary grade, whereas neg-
ative factors such as lack of effort, declining perfor-
mance, or disruptive behavior can lower it. Repeated
disruptive classroom behavior can lead to failure in the
course or dismissal from the class.

Everyone (both graduate students and undergradu-
ates) will be graded on the same scale (passing=1.0).

Grades of I and DF. To qualify for a DF (graduate stu-
dents) or an I (undergraduates), a student must: (a)
have completed 12 weeks of the term, but be unable
to complete the class because of illness or other comp-
pelling reason, and (b) have done satisfactory work in
the course, and in the instructor’s judgment, be able
to complete the course without repeating it.

Homework. I’ll assign problems each day, and will
expect you to work on them so that we can discuss
difficulties that may arise during the next class. Each
week's assigned problems are due at the start of the
first class of the next week (usually the following Mon-
day). I’ll spot-check all your work, and carefully grade
one or two problems from each day's assignment. In
order to get credit for a problem set, you must be
present—both physically and mentally—for the entire
class at which it is due. Problem sets must be written
up neatly and logically, with appropriate explanations
provided. You can use my office hours to discuss any
difficulties you may be having with these problems.
Exams will consist primarily of problems similar to
elementary and homework problems.

Collaboration. You may work with others on the
homework problems, but you must acknowledge their contribu-
tions, and your final writeup must be your
own. Flagrant copying will be penalized. Cases of
cheating on either homework or exams will be han-
dled according to the University's policy on Integrity
of Scholarship and Grades.

Policy on Makeup Work. The only valid reasons for
missing an exam or a homework assignment are: (1)
illness, or (2) a conflicting University activity that can-
not be rescheduled. Claims involving such contingen-
cies must be supported by verifiable documentation
signed by: (1) your physician in case of illness, or (2)
your faculty supervisor in case of a non-rescheduleable
University activity. Each case will be handled on an
individual basis.

Important Dates.
Last day to change to or from Credit/No credit or
visitor grading options.
Mon. Jan. 20: Martin Luther King Day. Classes
cancelled.
Fri. Jan 3: Last day to drop a course and receive a
100% refund.
Wed. Feb 26: Middle of semester—last day to drop a
course with no grade.
Mon.-Fri., March 3–7: Spring Break