

Math 3851 – Functions Complex Variable

Lecture Time: 10:00am – 11:50am (MW) Location: Knudson Hall 100

Textbook: Brown and Churchill, Complex Variables and Applications 9th Ed.

Prerequisite: Math 2060, Math 2080, and Math 2200

Instructor: Mei Yin mei.yin@du.edu

Office and Office Hours: Zoom, 10:30am – 12:00pm (TR), or by appointment

Lecture Schedule

Here is a plan of the course (may be altered for pedagogical reasons as the course develops).

Ch. 1: Complex Numbers	2 weeks
Ch. 2: Analytic Functions	3 weeks
Ch. 3: Elementary Functions	1.5 weeks
Ch. 4: Integrals	3.5 weeks

Course Description

Topics of study will include complex numbers, analytic functions, complex integration, series expansions, residue theory, conformal maps, advanced topics and applications. We will cover roughly the material from Sections 1-58 of the textbook, **NOT** including Sections 17, 28, 29, 39, 40.

Tentative Calendar

The Week Of	Sections Covered
January 6 – January 10	1, 2, 3, 4, 5, 6
January 13 – January 17	7, 8, 9, 10, 11, 12
January 21 – January 24	13, 14, 15, 16, 18, 19
January 27 – January 31	20, 21, 22, 23, 24
February 3 – February 7	25, 26, 27, Review
February 10 – February 14	Midterm, 30, 31, 32, 33, 34
February 17 – February 21	35, 36, 37, 38, 41, 42
February 24 – February 28	43, 44, 45, 46, 47, 48
March 3 – March 7	49, 50, 51, 52, 53, 54
March 10 – March 14	55, 56, 57, 58
March 17 – March 19	Review, Final Exam

Grading

Your final grade for the course will be determined based on a numerical weighted average calculated as follows: **Homework 30% Midterm 30% Final Exam 40%**. This average percentage will then be converted into a final letter grade based partially on how other students perform this quarter, and partially on typical percentage grades from previous quarters of the course.

Homework: Homework will be assigned about once a week. **The due date is every Monday at the beginning of the class.** Homework must be turned in promptly to receive credit. For submitted problems, students are expected to show work and justify their answers. Please write your name on the first

page. If you are submitting multiple pages, please staple them together.
The six highest homework scores will contribute to 30% of your final grade.

Exams: A **midterm** is scheduled **during class time** on **Monday, February 10**. The **final exam** is scheduled **during class time** on **Wednesday, March 19**. Makeup exams will only be offered in the event of extreme circumstances. If you think you have a problem which will force you to miss an exam, come talk to me as soon as possible.

Help

Additional handouts will be distributed throughout the quarter.

Students are also encouraged to ask for individualized help from the instructor at any time.

Students with Disabilities

If you qualify for academic accommodations because of a disability or medical issue, please submit a faculty letter to me from AccessibleDU: Student Disability Services (SDS) in a timely manner so that your needs may be addressed. SDS determines accommodations based on documented disabilities/medical issues. SDS is located in Suite 22 on the lower level of Driscoll South, 303-871-3241. Information is also available online at <https://studentaffairs.du.edu/disability-services-program>.

Religious Accommodations

University policy grants students excused absences from class or other organized activities for observance of religious holy days, unless the accommodation would create an undue hardship. Faculty are asked to be responsive to requests when students contact them **in advance** to request such an excused absence. Students are responsible for completing assignments given during their absence, but should be given an opportunity to make up work missed because of religious observance. Once a student has registered for a class, the student is expected to examine the course syllabus for potential conflicts with holy days and to notify the instructor by the end of the first week of classes of any conflicts that may require an absence (including any required additional preparation/travel time). The student is also expected to remind the faculty member in advance of the

missed class, and to make arrangements in advance (with the faculty member) to make up any missed work or in-class material within a reasonable amount of time.

Honor Code

Follow the [Honor Code](#) in all activities related to this course. Incidents of academic misconduct will be reported to and investigated by the Office of Student Conduct.

Other

Check the **DU academic calendar** for important dates throughout the quarter: <http://www.du.edu/registrar/calendar/index.html>.