

COURSE DESCRIPTION
COMPLEX ANALYSIS
MA 648-1D
FALL 2020

DEPARTMENT OF MATHEMATICS
UNIVERSITY OF ALABAMA AT BIRMINGHAM

Course Instructor: Rudi Weikard
Office: UH 4032 (this information is perhaps not very useful)
Zoom: <https://uab.zoom.us/my/rudi.weikard>
E-mail: weikard@uab.edu
Office Hours: Drop in anytime via Zoom or e-mail for an appointment

Meeting times: MWF 11:15 am – 12:05 pm
Meeting location: UH 4002
Textbook: No textbook required. Lecture notes will be posted online
Canvas: <https://www.uab.edu/elearning/canvas/>
UAB United: <https://www.uab.edu/uabunited/students>

Important dates:

First day of classes: August 24
Labor Day Holiday: September 7
Fall/Thanksgiving Break: November 23 – November 29
Last day of classes: December 4

Course content:

- The complex numbers: algebra, geometry, and topology
 - Complex-valued functions of a complex variable
 - Cauchy's theorem and some of its consequences
 - Isolated singularities
 - A zoo of functions
 - Entire functions
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Assessment procedures:

- (1) There are no quizzes or tests. Neither is there a Final Exam.
 - (2) Points are earned through preparation of papers, presentations of papers, and course participation as explained below.
 - (3) Preparation of papers:
 - (a) The material in the lecture notes is organized in about 120 topics (which are grouped in sections and chapters).
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Date: August 16, 2020.

- (b) For each topic students prepare papers and put them in an electronic format (e.g., a scan of handwritten work on paper). Up to four students may collaborate in the preparation of a paper. Papers must have a title (the title of the topic treated) and must list the author or authors.
- (4) Presentation of papers:
 - (a) Students are selected randomly to present their work. This selection occurs just before class. Since random numbers are not distributed evenly for finitely many trials I may, if necessary, intercede to get a more even distribution of selections.
 - (b) Upon being selected a student may decline to present. There is no penalty for declining except the forfeiture of the opportunity of earning points.
 - (c) Upon being selected and accepting the task students share their paper with the class explaining all details (many of which are missing in the notes).
 - (d) After the presentation the paper will be made available to everyone on Canvas.
 - (e) 20 points will be awarded for the *correct* presentation of a topic. 8 points are awarded to the presenter while the remaining point are distributed equally among the authors of the paper (including the presenter). Up to four authors are allowed per paper.
- (5) Course participation:
 - (a) Sometimes a presentation may involve mistakes or issues may remain unclear. Students are encouraged to ask questions for additional clarification.
 - (b) Asking a relevant question will earn between 1 and 5 points at the discretion of the instructor.
 - (c) Giving correct answers is part of a successful presentation, i.e., a presentation earning points.
- (6) Letter grades: If we cover all material of the lecture notes, the student with the highest score S will receive an A. An A, B, or C is earned by anyone who has at least 90%, 70%, or 50%, of S , respectively.
- (7) Should we fall short of covering all material the highest score will earn a B.

COVID-19

UAB Disability Support Services (DSS) has established a process for UAB students to request temporary adjustments based on the impact of COVID-19. The process is similar to the traditional DSS registration procedures for accommodations based on disability. However, these requests will be referred to as "COVID-19 Related Temporary Adjustments". On the DSS website <http://www.uab.edu/dss>, there is a section (next to the traditional DSS application process) titled "Request COVID-19 Temporary Adjustments" where students can read the process and click to complete an application.

Disability Support Services

UAB is committed to providing an accessible learning experience for all students. If you are a student with a disability that qualifies under the Americans with Disabilities Act (ADA) and/or Section 504 of the Rehabilitation Act, and you require accommodations, please contact Disability Support Services for information

on accommodations, registration and procedures. Requests for reasonable accommodations involve an interactive process and consist of a collaborative effort among the student, DSS, faculty and staff. If you are registered with Disability Support Services, please contact me to discuss accommodations that may be necessary in this course. If you have a disability but have not contacted Disability Support Services, please call 934-4205 or visit <http://www.uab.edu/dss>.