



MAA 4402 Complex Analysis

Text : Complex Variables and Applications.

by

JW Brown and RV Churchill

McGraw Hill 9th ed.

Instructor : Murali Rao

Office Lit 494

Office Hr MWF 4th Period.

Test dates Sept 21, Oct 26 Dec 5.

No makeups without medical documentation.

Class Attendance: Recommended but not required.

Grades(Standard) : A : 90+ , A- : 87-89 , B+ : 84-86

B : 80-83 , B- : 77-79 , C+ : 74-76 ,

C : 70- 73 .

Accommodations for Students with Disabilities: "Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester."

Tentative weekly Schedule.

Tentative weekly Schedule for MAA 4402.

Aug 22–24:

Complex numbers , operations. Complex conjugate.

Aug 27–31:

Exponential form , roots, arguments , regions in plane.

Sept 5–7 :

Functions, Mappings , Limit theorems . Continuity , Derivatives.

Sept 10–14 :

Cauchy Riemann Equations , Polar coordinates , Analytic Functions ,
Harmonic functions .

Sept 17–21 :

Continuation . Review for Test 1 on Sept 21.

Sept 24–28 , Oct 1–5 :

Contour Integrals Cauchy Goursat Theorem .

Oct 8–12 :

Simply connected domains , Cauchy Integral Formula .

Oct 15–19 Oct 22–26 :

Liouville's Theorem , Fundamental Theorem of Algebra .
Maximum Modulus Principle. Review for Test 2 on Oct 26 .

Oct 29–31 :

Sequences and Series . Taylor and Laurent Series.

Nov 5–9 :

Laurent Theorem . Absolute and Uniform Convergence .
Differentiation and Integration .

Nov 14–19 :

Residues and Poles . Isolated Singularities . Cauchy
Residue Theorem . Zeros of Analytic Functions.
Evaluating Improper Integrals .

Nov 26–30 Dec 3, 5 :

Jordans Lemma, Argument Principle , Rouché's Theorem .
Review for Test 3 on Dec 5.

Grades: Grading will be in accord with the UF policy stated at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Honor Code: “UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The [Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.”

Class Attendance: “Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.”

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Online Evaluations: “Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.”

Contact information for the Counseling and Wellness Center: <https://counseling.ufl.edu/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

