

COURSES

RESEARCH

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THEORY

PERSONAL WEB
PAGE

SYLLABUS – MAA 4402/5404

This syllabus is subject to change.

Created Saturday, August 17, 2024.

Last update made Sat Aug 17 15:13:59 EDT 2024.

Previous update made Sat Aug 17 13:01:13 EDT 2024.

TENTATIVE VERSION

Section	Period	Meeting Time	Room
09A6	MWF 3rd	9:35 – 10:25am	LIT 217

Dr. Frank Garvan

408 Little Hall
(352) 294-2305
fgarvan@ufl.edu

Office Hours (in person and zoom)

Monday 4th Period (10:40-11:30am),
Wednesday 8th Period (3:00-3:50pm), and Friday 5th Period (11:45-12:35pm).
To arrange a ZOOM MEETING send email to Dr.G. in advance.

Prerequisites

MAC 2313 or MAC 3474, and MAP 2302, both with minimum grades of C.

Textbook

R.V. Churchill and J.W. Brown, *Complex Variables and Applications*, 9th Edition, McGraw-Hill.

Students are expected to read the relevant sections of the text in preparation for class and to supplement the material covered in lectures.
Reading examples in the textbook is important preparation for doing homework.

Course Description

Complex numbers, analytic functions, Cauchy-Riemann equations, harmonic functions, elementary functions, integration, Cauchy-Goursat theorem, Cauchy integral formula, infinite series, residues and poles, conformal mapping. Credit will be given for, at most, MAA 4402 or MAA 5404.

MAA 5404 Additional Topic: Elliptic Functions (Reading and homework assignment)

Course Objectives and Goals:

For the student to master the definitions and theory of functions of a complex variable.

For the student to write clear, complete and logical solutions of problems involving functions of a complex variable.

Tentative Weekly Course Schedule

WEEKS 1-2: Complex Numbers

WEEKS 3-4: Analytic Functions

WEEKS 5-6: Elementary Functions

WEEKS 7-8: Integrals

WEEK 9: Series

WEEKS 10-11: Residues and Poles

WEEKS 12-13: Applications of Residues

Homework

Homework will be assigned weekly, and should be uploaded in CANVAS. Doing all the homework is essential for success in this class as the exams test your conceptual understanding of the homework assignments. Some homework problems involve elementary proofs. The solution to all homework problems should be clear, logical and complete. Students are encouraged to check their work with their instructor. See **Tokens** below.

Assessment

Assessment will be based on the following

Exam 1	35%
Exam 2	35%
Homework and Quizzes	30%

Makeup Exams

Documentation required for Makeup Exams

In Class Exams

Exam 1: Wednesday, October 9

Retake One Question Opportunity: Wednesday, October 16

Exam 2: Friday, November 22

Retake One Question Opportunity: Wednesday, December 4

Attendance

Attendance is required.

Over 50 % attendance is required for a passing grade.

Grading

Grading scale:

A: 90% Exams and Homework and 70% Attendance

B: 80% Exams and Homework and 65% Attendance

C: 67% Exams and Homework and 60% Attendance

D: 57% Exams and Homework and 55% Attendance

Green and Pink Quizzes:

Each regular class begins with a Green Quiz, this is a short, no-stakes quiz which is usually based on material from the prior class. The Green Quiz is not graded but a solution will be provided. Each regular class ends with a Pink Quiz. The Pink Quiz provides an opportunity to ask questions about class material. Dr. Garvan gathers the Pink Quiz questions from the entire class and creates an answer sheet which is then posted to CANVAS.

Tokens:

There are 3 ways to earn a Dr. G token: 1) attendance (white token), 2) coming to office hour (red token), and 3) submitting homework (blue token) to CANVAS by 11:59 pm on each Thursday when it is due. Attendance and Homework tokens can be picked up during class. Office hour tokens are given when a student attends an office hour. Tokens can be redeemed after each exam for the opportunity to redo ONE of the four exam questions. A student needs 10 white attendance tokens, 2 red office hour tokens, and 4 blue homework tokens in order to redo an EXAM 1 question. Tokens cannot be “rolled over”, e.g., tokens to redo a question from Exam 2 must be earned in the period after Exam 1. Required number of tokens for Exam 2 to be announced later. Tokens may NOT be shared with other students.

Friday In-Class Homework Session and Weekly Graded Homework Problem:

A portion of Friday's class will be devoted to working in small groups to collectively check the week's homework assignment. These problems will not be graded, but through the review process at the Friday In-Class Homework Session, it will be checked for correctness. **After the homework session an additional problem will be released and will be due by 11:59PM that evening. It WILL BE GRADED and returned in the following class period.**

UF Grading Policies

See [THIS LINK](#)

Academic Honesty

The course will be conducted in accordance with the University honor code and academic honesty policy

*UF students are bound by The Honor Code 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 questions or concerns please consult with the instructor.*

Accommodations for students with disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Getting Started with the Disability Resource Center](#)
It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Online course evaluation process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results>.

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