

**MATH 352 - COMPLEX VARIABLES**  
**Spring 2022**  
**MWF 9:45am - 10:35am**

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**Professor:** Dr. Rachel Rossetti    **Office:** Buttrick Hall 327  
**Email:** rrossetti@agnesscott.edu    **Office Hours:** M 2:00-3:00, Th 2:00-3:00,  
**Phone:** x6231    and by appointment

**TEXT:** *Fundamentals of Complex Analysis with Applications to Engineering and Science* by E.B. Saff and A.D. Snider, **3rd Edition**.

**WeBWorK:** WeBWorK is an online program where you will access your homework and proficiency exam. You will access WeBWorK through Canvas, and more information is posted on the Canvas site.

**PREREQUISITES:** MAT 220 - Multivariable Calculus.

**COURSE GOALS:** In this course students will:

1. Practice working with the field of complex numbers and the complex transcendental functions.
2. Identify the differences between two central ideas of calculus (differentiation and integration) in the complex setting and the real setting.
3. Identify and employ the basic properties of analytic functions, including Cauchy's Theorem.
4. Prove the Fundamental Theorem of Algebra.

Note: You should expect to spend about 3-4 hours outside of class for every hour spent in class.

**LOCATION:** We will connect remotely during the first two weeks of the semester and meet in-person thereafter.

- Zoom - <https://agnesscott.zoom.us/j/2192804913>
- Classroom - Bullock Science Center, Room 103W

[Please note that the location is subject to change based on the college-wide policies.]

**ATTENDANCE AND CLASS POLICY:** You are expected to be in class each day prepared to learn, whether this be remotely or in-person. If you do not attend class, then you are still responsible for the material covered. **Make-up homework and exams will not be given** unless you have an extenuating circumstance that is documented by the Office of Advising and Accessible

Education. **Please keep your camera on while we connect remotely.** Also, please keep your microphone muted unless you have a question or discussion point.

**ENGAGEMENT:** Engagement = Preparation + Participation.

It is critically important that you take personal responsibility for your education and reflect on your engagement with the material. Instead of me assigning you a participation grade, you will regularly complete an assignment where you ask yourself “Have I *truly* engaged with the material by spending time preparing for class and showing up to class with a genuine interest in growing as not only a mathematician but a whole-person.” This reflective assignment is due on the last day of each month (whether or not this is a class day). The due dates for the engagement reflections are printed in the course schedule and posted on Canvas. A rubric is also posted on Canvas.

**WEBWORK:** You will be assigned WeBWorK homework problems to practice concepts that we cover in class. For these problems, you have the option to re-do them as many times as needed until they are correct (provided you do so before the deadline). There is no penalty for getting them wrong the first time (or second, third, fourth, etc...). All the WeBWorK assignments are already posted on the Canvas page, and I encourage you to start them early. I also encourage you to write out complete work for all the problems even though only the answer is submitted online. WeBWorK FAQ instructional documents are posted on Canvas.

You are encouraged to work together on all homework, but **the work you turn in must be your own.** In particular, copying answers from an outside source (another student, solutions manual, tutor, internet, etc...) is forbidden. **No make-up or late homework will be accepted,** unless you have an extenuating circumstance that is documented by the Office of Academic Advising and Accessible Education.

**TESTS:** There will be three in-class tests throughout the semester. These are closed-book and closed-note assessments that will take one class period each. The dates for the tests are printed in the course schedule.

**FINAL EXAM:** The final exam is cumulative will be self scheduled during the final exam period.

**GRADE POLICY:** The scale used for this course is the standard ten point scale that can be found in the ASC Handbook. Your grade will be computed as follows:

Engagement	10%
WeBWorK	40%
Test 1	10%
Test 2	10%
Test 3	10%
Final Exam	20%

**RESOURCES:** Course materials, announcements, and homework assignments will be updated on Canvas. It is your responsibility to check the Canvas site regularly.

**OFFICE HOURS/APPOINTMENTS:** Please come to office hours. This is time set aside just for you, so take advantage of it. If your schedule conflicts with the preassigned times, or if you would prefer to meet with me one-on-one, then let me know, and we can find a time to meet by

appointment. To schedule an appointment, simply send me an email.

**EMAILS:** Please do not hesitate to email me with questions and/or to set up meetings. I will usually respond to an email within 24 hours. I do not always check my email in the evenings, so if you send me a message at night, then I will usually reply the next business day.

**DIVERSITY AND INCLUSION:** As one of the most diverse colleges in the nation, ASC is ideally positioned to be the model of a diverse and inclusive community that society can aspire to be. Such diversity raises the intellectual quality of the classroom experience, creating a unique environment for learning to understand and navigate the challenges of our times. By studying, living, and playing together, Agnes Scott College's remarkably diverse student body hones the habits of mind, skills, and knowledge essential to ethical and innovative leadership in our increasingly heterogeneous and global society. As such, this course adheres to the principles of diversity and inclusion as integral to the Agnes Scott community and respects people from all backgrounds. As a first step, this course affirms people's decisions about gender expression and identity and will use each other's preferred names and gender pronouns at all times.

**ADA:** Agnes Scott College views disabilities as an integral part of the rich diversity of our community and strives to make all learning experiences as accessible as possible. If you are a student who receives academic accommodations through the Office of Accessible Education, please schedule a meeting with me within the first two weeks of classes to discuss how your accommodations will be implemented for this course. During this meeting, you are not expected to disclose any details concerning your disability, though you may discuss these details at your discretion.

If you are a student with a disability—physical, medical, psychological, or learning-specific, and have not connected with Accessible Education to discuss your accessibility needs, please visit their website to learn more about accommodations, helpful resources and support, available through the Office of Accessible Education. Students who register for accommodations during the semester should schedule a meeting with me after accommodations have been approved by the Office of Accessible Education.

**TITLE IX:** Agnes Scott is here to help you if you have experienced any form of sexual harassment or violence, dating or domestic violence, or stalking. Please talk to any faculty or staff member with whom you feel comfortable. Faculty and staff members want to support you and have been trained to help. They will also inform the Title IX office so that you learn about options available to you. If you do not want college administrators to know what you have experienced, you may talk to the chaplain, as well as nurses or counselors in the Wellness Center with complete confidentiality. They will not tell anyone what you share with them unless you give your express permission. You may contact the Title IX Coordinator directly at [T9Coordinator@agnesscott.edu](mailto:T9Coordinator@agnesscott.edu).

**COURSE EVALUATIONS:** Near the end of the semester, you will be notified by email and provided with a link to follow to complete course evaluations on online outside of class. I want you to know that your feedback on the course is extremely valuable to me, the department, and the administration. In particular, I take your comments very seriously and use them to improve the course the next time I teach it. Please do fill out a course evaluation when you receive the emailed link at the end of the semester.

**ACADEMIC HONESTY:** The Agnes Scott College honor code embodies an ideal of character,

conduct, and citizenship, and is an important part of the College's mission and core identity. This applies especially to academic honesty and integrity. Passing off someone else's work as your own represents intellectual fraud and theft, and violates the core values of our academic community. To be honorable, you should understand not only what counts as academic dishonesty, but also how to avoid engaging in these practices. You should:

- review each course syllabus for the professor's expectations regarding course work and class attendance.
- attribute all ideas taken from other sources; this shows respect for other scholars. Plagiarism can include portraying another's work or ideas as your own, buying a paper online and turning it in as if it were your own work, or not citing or improperly citing references on a reference page or within the text of a paper.
- not falsify or create data and resources or alter a graded work without the prior consent of your professor. This includes making up a reference for a works cited page or making up statistics or facts for academic work.
- not allow another party to do your work/exam, or submit the same or similar work in more than one course without permission from the course instructors. Cheating also includes taking an exam for another person, looking on another person's exam for answers, using exams from previous classes without permission, or bringing and using unauthorized notes or resources (i.e., electronic, written, or otherwise) during an exam.
- not facilitate cheating, which can happen when you help another student complete a take home exam, give answers to an exam, talk about an exam with a student who has not taken it, or collaborate with others on work that is supposed to be completed independently.
- be truthful about the submission of work, which includes the time of submission and the place of submission (e.g., email, online, in a mailbox, to an office, etc.).

You should understand that penalties result from dishonest conduct, ranging from failure of the assignment to expulsion from the college. You should speak with your professors if you need clarification about any of these policies.

**\*\*\* This syllabus is subject to change at my discretion. Any changes will be announced in class and on Canvas. \*\*\***