Math 411 – Functions of a Complex Variable – Spring 2021

Dates/Times MW 10:30-11:45

Location Exploratory 4106

Textbook *A first course in complex analysis*, Beck, Marchesi, Pixton, Sabalka (open source)

Instructor Matt Holzer, Exploratory Hall 4458

Email mholzer@gmu.edu

Online Office Hours , T TBD , F 11:00-12:00 (others by appointment)

Course Description The course is an introduction to the calculus of functions of a complex variable – a beautiful and useful extenstion of calculus of real valued functions. We will focus on complex differentiation, integration (Cauchy's Theorem) as well as power series, Laurent series, residues and applications.

Attendance You have the option of attending class in person or attending virtually (synchronous or asynchronous). If you wish to attend asynchronously then you should make plans to be available to take the two midterm exams.

COVID Protocols I am giving the option of attending class in person because I feel that it is a superior way to learn. You are free to come to class, but it is important to state that it is everyone's joint responsibility to keep each other safe. Please be aware of Mason's Safe Return to Campus policies. Please fill out your daily screening and opt for virtual attendance if you do not feel well.

Weekly homework assignments A homework assignment will be distributed every week. These problems will be due the following week. The homework will be divided into several parts. The first will ask you to review your lecture notes or contain shorter problems typical of what might appear on the preliminary exam. The second will contain more analytical problems. The first part will be graded on a 1/0 scale. The second portion is graded check/rewrite/zero. A check counts as one point. A rewrite is zero, but the problem may be rewritten and resubmitted for full credit. A zero is a zero.

Final Exam or Final Project You will have the choice of either taking a traditional final exam for the course or opting to do a project presentation. For the project you will select (I can provide suggestions) a topic related to complex analysis that we will not have the time to cover this semester. If you select this route, then a project proposal will be due mid semester.
All homework submissions will be done virtually via Blackboard.

Online Resources For most of the questions that I ask this semester, the solution can likely be found online with enough searching, or computer packages can be used to expediate your calculations. I request that you not do either of these things.

Important Dates

March 17th: Midterm #1
April 26th: Midterm #2
May 5th : Final Exam 10:30-1:15

Grade Each midterm is worth 15 percent of you grade. The Final/ Final Presention is worth 20 percent. Homework will be worth 50 percent of the final grade. Grades will be determined according to the proportion of points earned throughout the semester. Final grades will be given according to the standard breakdown (94 for an A, 90 for an A-, 87 for a B+, etc). I reserve the right to shift these gradelines lower, but they will not be raised.

Academic Integrity You are bound by the Mason Honor Code and its policies related to Academic Integrity. Violations will be taken seriously.

Disability Services Students may be eligible for accommodations through the Office of Disability Services

Communication All email communication is to take place through your gmu email account.