

MTH 360 Sec 101
Fall 2017

Course Title/Number	Introduction to Complex Variables MTH 360 Sec 101
Semester/Year	Fall 2017
Days/Time	MW 5:00-6:15pm;
Location	SH 514
Instructor	Dr. Michael Otunuga
Office	WAEK 3229
Office Hours	M-R 10-11am, 4-5pm
Phone	304 696-3049
E-Mail	otunuga@marshall.edu
Text	Complex Analysis For Mathematics and Engineering , 6th Edition, by John H. Mathews and Russell W. Howell (ISBN 978-1-4496-0445-5)
Software	Mathematica (or similar software that works with complex functions)
Calculator	Graphing calculator is required for the course
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment. See the University Academic Calendar (http://www.marshall.edu/calendar/academic/) for course withdrawal dates.

Course Description

An introductory survey of complex numbers, analytic functions, properties of elementary functions, integrals, series, residues and poles, with a focus on practical applications.

How each student learning outcome will be practiced and assessed in the course

MTH 360 Student Learning Outcomes	How students will practice each outcome in MTH 360	How student achievement of each outcome will be assessed in MTH 360
Students will demonstrate an ability to interpret and utilize complex numbers algebraically, geometrically, and topologically	Discussions, group work, board work, low-stakes writing, homework Chapter 1	Homework, quizzes, and exams.

Students will demonstrate an ability to apply concepts of real variable calculus to the complex variable setting.	Discussions, group work, board work, low-stakes writing, homework Chapters 2, 3, 4, and 7	Homework, quizzes, and exams.
Students will apply their knowledge of complex functions to create images of important sets and interpret complex functions and their applications	Discussions, group work, board work, low-stakes writing homework Chapters 5 and 6	Homework, quizzes, and exams.
Students will apply Residue Theory to find real solutions to real integrals using complex integrals.	Discussions, group work, board work, low-stakes writing, homework Chapter 8	Homework, quizzes, and exams.

Course Requirements / Due Dates

Attendance: Attendance is compulsory for this class. Coming late to class and leaving class early, playing with cell phone, sleeping in class will be counted as an unexcused absent. Unexcused absences from **5** classes (equivalent of two-weeks unexcused absence) will result in a reduction of one letter grade for the semester; unexcused absences from **6 or more** classes will result in an F

Homework: Homework will be assigned in class every week from the textbook.

Projects: Projects will be assigned as a take-home/reading materials. Class will be divided into smaller groups. Each group will be asked to present their project/reading materials during class. Students will be expected to collaboratively discuss and clearly explain solutions to the problem assigned to their group.

Tests: There will be 3 in-class tests during the semester and a comprehensive Final Exam. If you know in advance that you will have an excused absence on a test date, please inform me on time and make arrangements to take the test early. Make-up exams will only be given in the event of a university-excused absence.

Final Exam: The final exam will be on **Monday Dec. 11, 2017**. Please make travel arrangements accordingly. Make-up/early tests will not be available to accommodate individual travel plans.

Grading Policy

Attendance:	50pts		
Homework:	100pts		
Exam 1:	100pts	Scale	
Exam 2:	100pts	90.00 – 100%	A
Exam 3:	100pts	80.00 – 89.99%	B
Project:	100pts	70.00 – 79.99%	C
Final:	150pts	60.00 – 69.99%	D
Total:	700pts	Below 60.00%	F