



**Michigan  
Technological  
University**

## Course Syllabus

MA4410 – Complex Analysis

College of Science and Arts, Spring 2026

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## Course Identification

Course Number: MA4410 -R01  
Course Name: Complex Analysis  
Course Location: Fisher 130  
Class Times: M/W/F 11:00–11:50am  
Prerequisites: MA 3160

## Course Description/Overview

A study of complex numbers, functions of a complex variable, analytic functions, elementary functions, integrals, Taylor and Laurent series, residues and poles, and conformal mapping.

## Course Resources

### Course Website(s)

- [Canvas](https://www.courses.mtu.edu) [[www.courses.mtu.edu](https://www.courses.mtu.edu)]
- GitHub <https://github.com/AllanStruthersMTU>

### Course Texts/Software

- The online text “Complex Analysis” by Russell Howell and John Mathews
  - <https://complexanalysis.org/>
- The pretty online text “Complex Analysis: A Visual and Interactive Introduction” by Juan Carlos Ponce Campuzano
  - <https://complex-analysis.com>
- Mathematica, free to MTU students from <https://downloads.it.mtu.edu/>
- Julia, freeware available from <https://julialang.org/downloads/>

## Course Learning Objectives

Upon successful completion of this course, students should be able to

- Recognize standard complex variable arguments in other courses.
- Appreciate the connections that complex analysis gives between technical areas.

## Grading Scheme

**Grading System (Note: This is an example and not a Michigan Tech standard)**

<b>Grade</b>	<b>Percentage</b>	<b>Grade points</b>	<b>Rating</b>
<b>A</b>	90 & above	4.00	Excellent
<b>AB</b>	85 – 89	3.50	Very good
<b>B</b>	80 – 85	3.00	Good
<b>BC</b>	75 – 79	2.50	Above average
<b>C</b>	70 – 74	2.00	Average
<b>CD</b>	65 – 69	1.50	Below average
<b>D</b>	60 - 64	1.00	Inferior
<b>F</b>	59 and below	0.00	Failure
<b>I</b>	Incomplete; given only when a student is unable to complete a segment of the course because of circumstances beyond the student's control.		
<b>X</b>	Conditional, with no grade points per credit; given only when the student is at fault in failing to complete a minor segment of a course, but in the judgment of the instructor does not need to repeat the course. It must be made up by the close of the next semester or the grade becomes a failure (F). A (X) grade is included in the grade point average calculation as a (F) grade.		

## Grading Policy

Grades will be based on the following:

<b>Course Component</b>	<b>Points</b>
Homework	45
Projects/Exams	45
Attendance and participation	10
<b>Total Points</b>	<b>100</b>

## Late Assignments

Deadlines are enforced because solutions and code are discussed in class.

## Course Policies

- Attendance is important. Absences and late arrivals disrupt class.
- Ask questions in class. If something is unclear, others likely feel the same!
- Read material and do exercises before class.
- Maintain a respectful and professional learning environment.
- Collaboration and appropriate resource use on code/homework/presentations is encouraged. Not citing appropriately violates MTU Academic Integrity Policy 109-1

## AI Policy

Transparency in GenAI tool usage is mandatory, and instructors reserve the right to ask students to explain their work process. This can include prompts and AI-generated output. GenAI changes fast. Course policies are provisional. If in doubt, consult the instructor.

## **Academic Integrity Rules**

Students should discuss homework, code, and projects. Students are individually responsible for individual work. Groups are jointly responsible for group work. Resources used, including but not limited to internet sites, AI tools, etc should be cited. Please do not distract the instructor and other students during class. Maintaining academic standards is important, academic misconduct may result in an appropriate conduct sanction/educational condition(s) imposed by the Office of Academic and Community Conduct and/or in a faculty-imposed academic penalty. For details, review the policy

[<http://www.admin.mtu.edu/usenate/policies/p109-1.htm>]

## **University Policies**

As part of the university's commitment to curricular quality, student work products may be used to evaluate how well Michigan Tech students are achieving programmatic learning outcomes. Findings are used to inform future course and curricular improvements to support student learning but are not used to evaluate specific students and individual instructors.

Michigan Tech has standard policies on academic misconduct and complies with all federal and state laws and regulations regarding discrimination, including the Americans with Disabilities Act of 1990. For more information about reasonable accommodations or equal access to education or services at Michigan Tech, please call the Dean of Students Office at 906-487-2212 or visit the [Student Disability Services website](https://www.mtu.edu/success/disability/) [https://www.mtu.edu/success/disability/]. More information is also available from the [Syllabi Policies webpage](http://www.mtu.edu/ctl/instructionalresources/syllabus/syllabus_policies.html) [http://www.mtu.edu/ctl/instructionalresources/syllabus/syllabus\_policies.html].

## **Course Schedule (example dates & assignments only)**

Student experience with prerequisites and interests will determine topics and sequencing. The final exam slot will be used for project presentations or an exam.

### **Week 1**

*M Syllabus review, introductions, and planning*

*WF Review of prerequisite materials. Chapter 1 of Howell and Mathews*

### **Week 2-14**

*MWF Continue working through Howell and Mathews*

### **Finals Week**

The final exam slot scheduled by the Registrar's office will be used for an exam or project presentations.