

MATH 4520 Section(s) 001 and MATH 5400 Section(s) 001 (Fall 2026 1) ⬆⬇

Intro to Functions of a Complex Variable (Math 4520/5400)

Class info:

MWF 10:10-11am in GAB 461

Instructor:

Dr. Sean Griffin
Assistant Professor
GAB 409

sean.griffin@unt.edu (mailto:sean.griffin@unt.edu)

Office hours:

- Tentatively Mon 2-3pm + Wed 1-2pm.
- I also have OH for another class Mon 1-2 and Wed 2-3. You're welcome to stop by during those times if there's no one in my office.
- Also by appointment.

Textbook (required):

Fundamentals of Complex Analysis with applications to Engineering and Science 3rd edition, by Saff and Snider

Class summaries:

Day	Sections	Summary	Notes
8/17	1.1-1.3	Intro + defs of real and imaginary part, modulus, quadratic formula, circles	4520 lecture 1.pdf (https://unt.instructure.com/courses/151682/files/40199595?location=course_syllabus_151682&wrap=1)

63

You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

Reset Student

Leave Student View

8/19	1.1-1.3	Solving cubic equations, properties of complex numbers	4520 lecture 2.pdf (https://unt.instructure.com/courses/151682/files/40246901?location=course_syllabus_151682&wrap=1)
8/21	1.3	Proofs using complex numbers, triangle inequality	4520 lecture 3.pdf (https://unt.instructure.com/courses/151682/files/40274772?location=course_syllabus_151682&wrap=1)
8/24	1.3	Set notation, Polar coordinates, argument	4520 lecture 4.pdf (https://unt.instructure.com/courses/151682/files/40308660?location=course_syllabus_151682&wrap=1)
8/26	1.4 + 1.5	Euler's identity, complex powers, complex roots	

Important Dates:

Aug 17 - First day of class!

Aug 21 - Last day to add

Aug 28 - Last day to drop without a W

Sep 25 - Last day to switch to Pass/No Pass

Nov 6 - Last day to drop (with a W)

Course description:

We will start by reviewing multiplication of complex numbers in rectangular and polar coordinates. Then we will study differentiability of functions of one complex variable, followed by Taylor and Laurent series and contour integration. We will see some proofs of theorems during lecture, and there will be some proof-based questions on the homework as well as concrete examples and computations. For Math 4520, no prior exposure to proofs will be assumed. For Math 5400, I will assume you have taken several proof-based courses.

Learning objectives:

- Chapter 1: Complex numbers and complex-valued functions.
- Chapter 2: Analytic and harmonic functions, Cauchy-Riemann equations



You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

- Chapter 7: Conformal mappings.
- Limited selections from Chapter 8 and other topics, as time permits.

Math 5400 Students: Graduate students enrolled in 5400 will be given some extra/different weekly problems that are more proof based, as well as more proofs on exams.

ODA accommodations:

If you have ODA accommodations, please let me know early so that we can figure out the best way to accommodate you. We can discuss further by appointment (see more info below).

Exams:

There will be 2 midterm exams and 1 final exam:

- Midterm 1, in class on **Wed, Sept 23**
- Midterm 2, in class on **Wed, Nov 4**
- Final Exam (cumulative), in our usual classroom on **Wed Dec 9, at 8-10am**

You may use a 8.5x11in sheet of notes on the exams (but not quizzes). No calculators allowed on quizzes/exams.

Homework/Quizzes:

Each week, there will be homework due on **Wednesday at start of class**, except on exam weeks.

There will be **5 mini quizzes** (10-15 min) on the following **Fridays** in class that will be based on the homework that was due that week:

Friday Sept 4, Sept 18, Oct 9, Oct 16, Nov 20

Your lowest 2 homework grades and your lowest (only 1) quiz grade will be dropped.

GenAI policy:

Use of Generative AI (e.g. ChatGPT, Gemini, etc.) or other online aids like Chegg to solve the specific problems assigned as homework is **NOT** allowed.

However, feel free to use it to study for quizzes and exams. Just be aware that if you do use GenAI, you are responsible for verifying whether its explanations are accurate or not. Generative AI is known to hallucinate and fill in its knowledge gaps with false information, so use it at your own risk for studying. (see more below)



You are currently logged
into Student View

*Resetting the test student will clear
all history for this student, allowing
you to view the course as a brand
new student.*

Reset Student

Leave Student View

- Quizzes + Homework: 20%
- Midterm 1: 22.5%
- Midterm 2: 22.5%
- Final Exam: 35%

If your overall score falls in the following percentage ranges, you are guaranteed at least the letter grade listed below. (These ranges might be curved during the semester to benefit you depending on class performance on the exams)

- A: $\geq 90\%$
- B: $\geq 80\%$
- C: $\geq 70\%$
- D: $\geq 60\%$
- F: Below 60%

Attendance

Attendance outside of quizzes and exams is not required, but obviously I strongly encourage you to come to class!

Safety procedures

We will not be working with any harmful chemicals like in Chemistry. With that said, please follow proper safety guidelines when dividing by 0, taking the derivative of $|x|$, and integrating underneath an unbounded curve.

Late homework/missing exams

A penalty of 10% (of the overall point total) per day will be deducted for each day your homework assignment is late.

If you need to miss a quiz or an exam because of an [authorized absence](https://policy.unt.edu/policy/06-039)  (<https://policy.unt.edu/policy/06-039>), please let me know as soon as possible.

University-wide policies:

Academic integrity:



You are currently logged
into Student View

*Resetting the test student will clear
all history for this student, allowing
you to view the course as a brand
new student.*

[Reset Student](#)

[Leave Student View](#)

ODA (expanded):

The University of North Texas makes reasonable accommodation for students with disabilities. Students needing a reasonable academic accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the student will request their letter of accommodation. ODA will provide faculty with a reasonable accommodation letter via email to begin a private discussion regarding a student's specific needs in a course. Students may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to meet with faculty regarding their accommodations during office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website.

Unauthorized Aids During Examinations and Assessments

Students may use only those materials and resources that are expressly authorized by the instructor for a particular examination or assessment. Touching, holding, or accessing any unauthorized aid during the examination period constitutes a violation of the Student Code of Conduct, regardless of whether the aid is used.

Any item that may be considered an unauthorized aid must be kept out of view and in a closed container (e.g. zipped backpack, buttoned purse, etc.) during the entirety of the examination or assessment.

Unless specifically authorized in writing by the instructor, prohibited aids include, but are not limited to:

- Mobile phones and smartphones
- Smartwatches and fitness trackers with communication, recording, or internet capabilities
- Tablets, laptops, and other computing devices
- Earbuds, headphones, and other audio devices
- Smart glasses, cameras, recording devices, and wearable technology
- Artificial intelligence (AI) tools, chatbots, and other generative AI technologies
- Notes, textbooks, study guides, formula sheets, or reference materials
- Any other device, material, or resource not expressly permitted by the instructor

Students are responsible for clarifying any questions about permitted materials before the examination begins.

Course Summary:



**You are currently logged
into Student View**

*Resetting the test student will clear
all history for this student, allowing
you to view the course as a brand
new student.*

Reset Student

Leave Student View

Date	Details	Due
Wed Aug 26, 2026	 Homework 1 (https://unt.instructure.com/courses/151682/assignments/3206298)	due by 10:10am
Fri Sep 4, 2026	 Quiz 1 (https://unt.instructure.com/courses/151682/assignments/3233054)	due by 10:30am
Fri Sep 18, 2026	 Quiz 2 (https://unt.instructure.com/courses/151682/assignments/3233055)	due by 10:30am
Wed Sep 23, 2026	 Midterm 1 (https://unt.instructure.com/courses/151682/assignments/3233071)	due by 10:10am
Fri Oct 9, 2026	 Quiz 3 (https://unt.instructure.com/courses/151682/assignments/3233056)	due by 10:30am
Fri Oct 16, 2026	 Quiz 4 (https://unt.instructure.com/courses/151682/assignments/3233057)	due by 10:30am
Wed Nov 4, 2026	 Midterm 2 (https://unt.instructure.com/courses/151682/assignments/3233072)	due by 10:10am
Fri Nov 20, 2026	 Quiz 5 (https://unt.instructure.com/courses/151682/assignments/3233058)	due by 10:30am
Wed Dec 9, 2026	 Final Exam (https://unt.instructure.com/courses/151682/assignments/3233073)	due by 8am



You are currently logged
into Student View

Resetting the test student will clear
all history for this student, allowing
you to view the course as a brand
new student.

[Reset Student](#)

[Leave Student View](#)