

Welcome to
MATH 3032 - Complex functions and PDEs
Winter Term 2025

INSTRUCTOR: Dr. Monica Ilie

- **Contact info:** RB 2019 ★ ph: 766-7224 ★ *milie@lakeheadu.ca*
- **Office hours:** Mondays 3:00-4:00

COURSE INFORMATION:

- **Class time:** Monday/Wednesday 10:00 a.m.-11:15 a.m. (RB 2047)
- **Lab:** Friday 10:30-11:30 (UC 0050)
- **Suggested Textbook:** *Advanced engineering mathematics* by Dennis G. Zill (4th edition and up).
- **Book price:** starting at 139\$ for the 4th edition
- **Website:** the course website is on MyCourseLink
- **Grading:** Your final grade will be calculated according to the grading scheme below

Assignments	Midterm	Final Exam
10%	40%	50%

- **Midterm:** Wednesday, February 12 , 2025 (in class)

ASSIGNMENTS

We will be using the WebWork online network for the homework.

LABORATORY

This hour is designed for informal discussions about the material presented during the lectures. New examples will be solved, but no new material will be covered.

SYLLABUS

The course covers two separate topics: partial differential equations (approximately 9 weeks) and complex analysis (approximately 3 weeks).

In the first part of the course we will cover series solutions to ordinary differential equations, Bessel and Legendre equations and series, Fourier series, the method of separation of variables and boundary value problems in rectangular and curvilinear coordinates. In the second part of the course we will cover the set of complex numbers, complex functions and contour integrals.

COURSE POLICIES

If you miss the midterm for a legitimate reason which you can document (e.g. doctor's note), the weight of the midterm will be *transferred* to the final exam. There will be no midterm make-up exams.

ACCOMODATIONS

Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: <http://studentaccessibility.lakeheadu.ca>

IMPORTANT DATES

Drop date: March 7, 2025

Contingency Dates: April 19, 2025