

Welcome to Math 1MP3

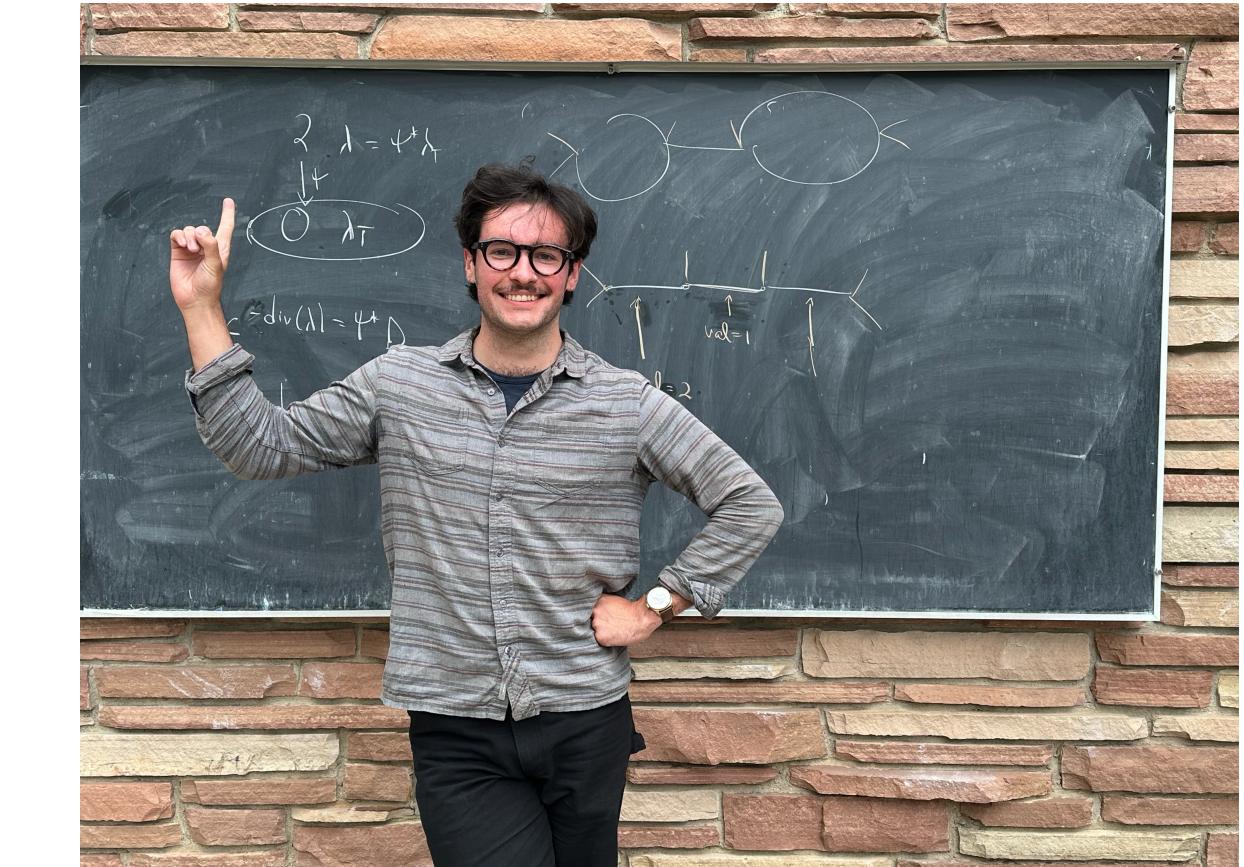
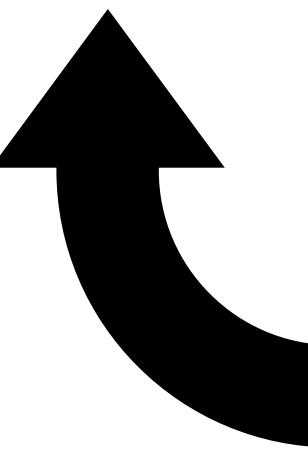
Winter 2026

Monday, January 5th, 2026

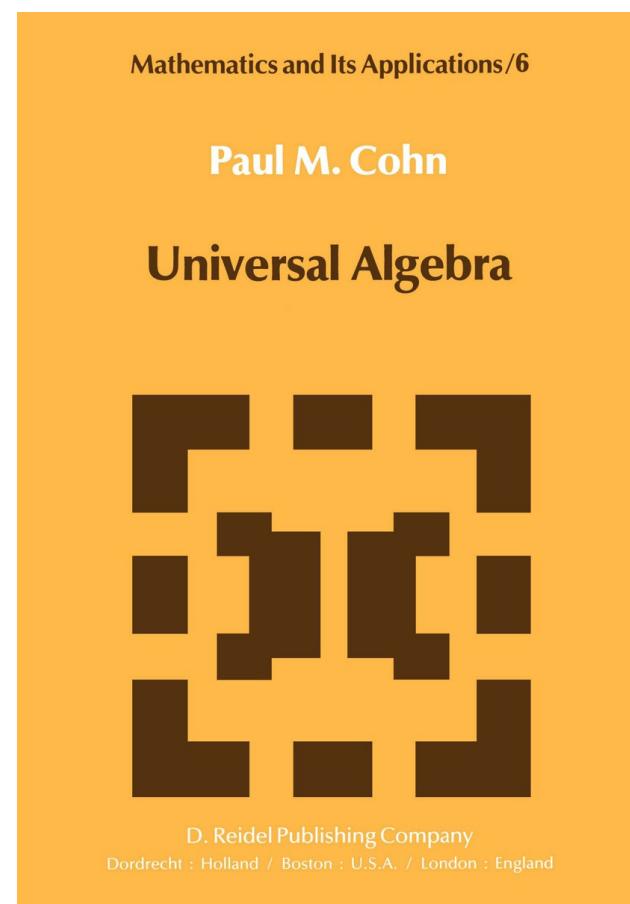
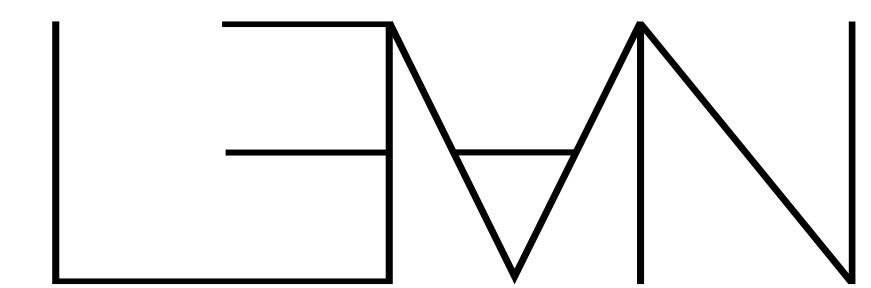


About me

I am from Canada's smallest province, PEI



I am in the fourth year of my PhD, supervised by Matt Valeriote. My research is in theoretical computer science.



I did an HBSc in Math and Physics and a Master's in Math here at McMaster

Course information

- **Instructor:** John Nicholson (nichoj6@mcmaster.ca)
- **Coordinator:** Blaise Bourdin (bourdin@mcmaster.ca)
- **Office:** Hamilton Hall 401
- **Office hours:** Mondays and Wednesdays 10am to 11am
(reach out if you need to schedule an alternative meeting with me).



McMaster Math Help Centre

The Math Help Centre is ready to help!

- The Math Help Centre is located in HH 104 and is open Mon-Fri 2:30pm-6:30pm in-person



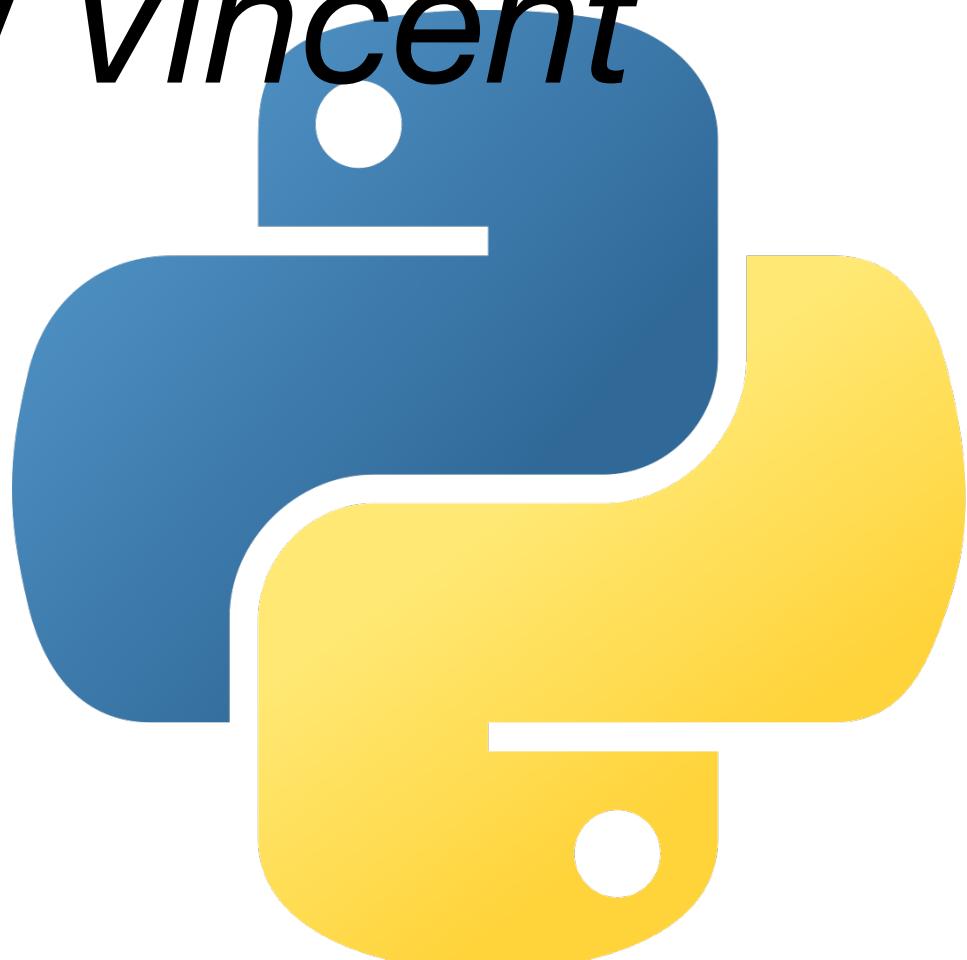
Activate Your Accommodations

Please scan the QR code to go to [**MySAS Portal**](#) and activate your accommodations for this term.



Course resources

- The official course textbook is **Introduction to Python Programming** by the *OpenStax project*. It is freely available online at <https://openstax.org/details/books/introduction-python-programming>
- Another great resource: <https://docs.python.org/3/tutorial>.
- Optional textbook: **Python for Mathematics** by *Vincent Knight*.



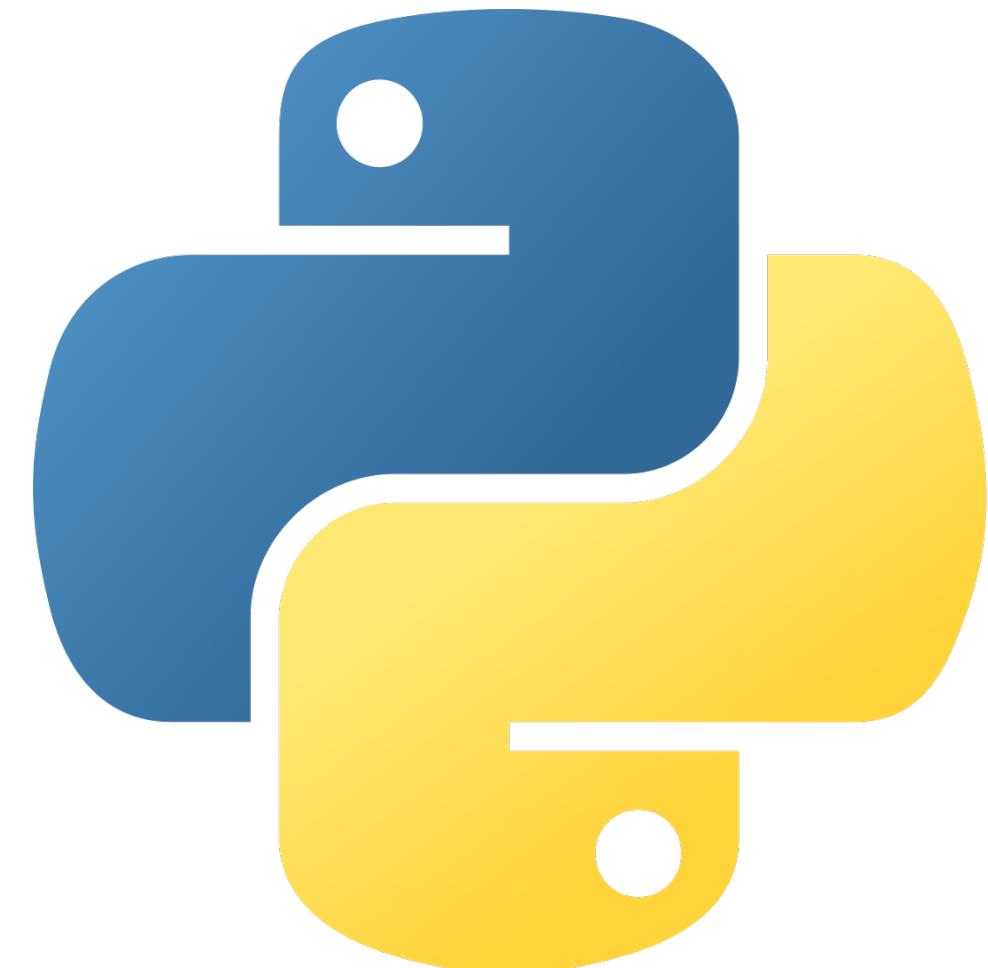
How you will be evaluated

Grade component	Weight (Scheme #1)	Weight (Scheme #2)
Assignments	30% (dropping one)	30% (dropping one)
Midterm exams	40% (20% each)	20% (best 1 of 2)
Final Exam	30%	50%

Notice what these two schemes imply about using an MSAF for an assignment or an exam!

Midterm schedule

- **Midterm 1:** February 3, 7:00 - 9:00 PM in PGCLL/B138
- **Midterm 2:** March 12, 7:00 - 9:00 PM in KTH/B135
- The final exam will be scheduled by the registrar
- There will be an assignment after each section of the course



Universal design



- Students will have 1 week to complete assignments with a built-in 72hr grace period.
- Exams will be 1:20, but the room will be booked for 2hrs.
- Python notebook templates will be provided ahead of classes and updated at the end of each section.
- **MSAF policy for missed written exams:** will be enrolled automatically in grading scheme II
- **MSAF policy for missed assignment:** this assignment will be the dropped one. No extra time will be given besides the built-in 72hr grace period.
- Tests and final exam will be computer based, students are expected to bring a laptop capable of connecting to university wifi and run on battery for up to 2hrs.

What is a computer?

- The modern computer that we all think about wasn't fully conceived of until the 1940's.
- Before this the word 'computer' often referred to a person who carried out computations. Computation was carried out by hand, often with the help of mechanical counting machines.
- The concept of computation wasn't truly formalized until the work of Alan Turing in 1936.
- However, Ada Lovelace is credited with writing the first computer program in 1843, for Charles Babbage's "analytical engine".

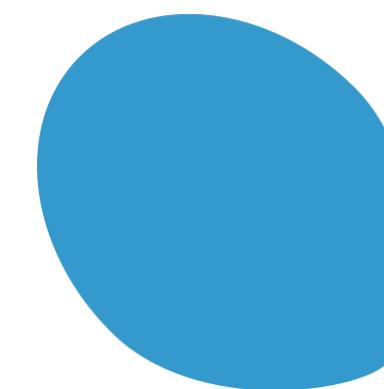


What is programming?

- **What?** A **program** is a list of instructions (like a recipe) which tells a computer to do something. When you write down directions for someone, you are writing a program.
- **How?** We must communicate with computers through a “programming language” like Python, in order for the computer to understand our instructions.
- **Where?** You can code in many different ways. We will use *Jupyter notebooks* through <https://mcmaster.syzygy.ca/>

Why Python?

- Python is free and well documented.
- It runs everywhere. The reference implementation is written in C and runs on almost anything.
- It has clean syntax. No semicolon related trauma.
- It's relevant, especially for the sciences.



SciPy



Who Python?

- Python was created by Guido van Rossum (BDFL).
- He named it after Monty Python's flying circus, a British TV show.



Time to write some code!

