

# EOSC 213: Computational Methods in Geological Engineering

## Lecture 2: Python refresher for scientific computing

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# Course Logistics: Office hours scheduling

We want to choose office hours that work well for you.

## Please think about and tell us:

- A good time for **TA office hours (on Zoom)**. Use this when2meet link for scheduling:  
<https://www.when2meet.com/?34223342-8MfKx>.
- A good time for **Instructor office hours (in person)**. Tue or Thu after lectures?

We will finalize office hours based on your feedback.

# Course Logistics: GitHub Repository

- All lecture notebooks and live-coding material will be posted here
- You are encouraged to:
  - Pull updates regularly
  - Run notebooks locally
  - Experiment and modify code
- Homework instructions may also reference this repository

## Link:

<https://github.com/ahxmeds/UBC-EOSC213-2025WT2>

The screenshot shows the GitHub repository page for 'ahxmeds/UBC-EOSC213-2025WT2'. The repository is public and has 1 branch and 0 tags. The commit history shows three commits: 'Update python refresher live coding notebooks' (17 minutes ago), 'Initial commit' (2 days ago), and 'Update README.md' (2 days ago). The README file is selected, showing the title 'UBC-EOSC213-2025WT2' and the description 'Course content for EOSC 213 Computation Methods in Geological Engineering taught in Januray-April, 2026 (2025WT2) at UBC, Vancouver'. The right sidebar contains sections for 'About' (Course content for EOSC 213 (2025WT2) taught in Januray-April, 2026 at UBC, Vancouver), 'Readme' (MIT license), 'Activity' (0 stars, 0 watching, 0 forks), 'Releases' (No releases published, Create a new release), 'Packages' (No packages published, Publish your first package), and 'Languages' (Jupyter Notebook 100.0%).

# Course Logistics: Homework 1

- Material: Python refresher and basics of ODE
- Will be posted by Friday evening (hopefully). Keep an eye on Canvas announcements.
- Due on **Fri, 16 Jan, 2026 at 11:59 pm**
- Submission instructions will be posted on Canvas

# Plan for today (80 minutes)

- **Part A (logistics + live coding, ~40 min):** Python refresher
- **Part B (in class activity, ~40 min):** Work in groups and try to finish 4 small programming activities. Solutions will be posted later on the course GitHub page.

**Goal:** by the end, you should be comfortable reading and writing array-based code that we will reuse all term.

## Now we live-code

- We will walk through the Lecture 2 notebook together
- I will type from scratch (and debug in real time). Feel free to interrupt with questions
- In the second half of today's class, we will do an in-class coding activity

**Goal for today:** you leave with enough confidence to start Homework 1 immediately.