Python Syllabus

Course Description
This course will introduce techniques for solving programming problems with fundamental algorithms and data structures. We will explore and make use of core data structures such as linked lists, stacks, queues, graphs and trees, evaluating the tradeoffs of different data structures and algorithms. Specifically, the course covers algorithms for sorting and searching over several of these data structures. This course will be taught with the Python programming language.

Logistics

Meetings
- T, Th, 4-6pm
  - Tuesdays: Adrienne will be on-campus but available on Zoom
  - Thursdays: Zoom

Communication
- Primarily via Piazza and Canvas

Prerequisites
- None; this course is beginner friendly

Grading
- Bi-weekly assignments: 80%
- Cumulative Final: 10%
- “Participation”: 10%

Bi-weekly assignments: Every-other week; Intended to put the weekly concepts into practice.
Participation: This is primarily about you reflecting on your learning and communicating with me.

Late Policy
1 late assignment/quarter, max 1 week late
Otherwise, 25% penalty for each day late
Lowest weekly assignment grade will be dropped
But it needs to be done and earn at least 50%— you can't choose to just not do an assignment!

Materials and Resources

Grokking Algorithms by Aditya Bhargava

[eBook Available via UW Libraries](https://www.library.washington.edu/)

PyCharm

Free license available from Jet Brains:

[https://www.jetbrains.com/community/education/#students/](https://www.jetbrains.com/community/education/#students/)