Programming Concepts & Methodologies II
COMSC132
Fall 2024 Sam Bowne
Mon & Wed from 12:45 to 2:10
3 credits

Class Description

This course covers techniques relevant to program design and selection of data structures for larger programs. Topics covered include design techniques, effective use of recursion, algorithmic efficiency and O-notation, linked-lists, stacks, queues, trees, hash tables, heaps, graphs and sorting and searching techniques. Extensive programming of a variety of data structures is required.

Student Learning Outcomes

- Understand data structures and when to use them
- Develop programs using recursion, time-memory trade off, and other methods
- Analyze the efficiency of algorithms

Mode of Delivery

I will be present in the classroom so students can attend physically, but students can also connect remotely to class via Twitch. Physical attendance is not required.

Instructor Information

You can reach me by sending messages via Canvas, as explained on my website **samsclass.info**. You can also reach me at this URL every evening at 7:30 pm Mon-Wed: **https://twitch.tv/sambowne**

Prerequisites

COMSC122 - Programming Concepts & Methodologies pr equivalent
Advisory: ENGL100 - College Composition

Textbook

Hands-On Data Structures and Algorithms with Python: Store, manipulate, and access data effectively and boost the performance of your applications, 3rd Edition by Dr. Basant Agarwal
ISBN-13 978-1801073448

Course Management System

All class materials are at **samsclass.info** including information about hands-on projects and quizzes. We will use a Canvas server, as explained on that site, for all examinations

Grading

Your grade is determined from hands-on projects and quizzes. Attendance is not graded. The system is:

A	90% or more
B	80 - 90%
C	60 - 80%
D	50 - 60^
F	less than 50%