Welcome to CMPSC 101

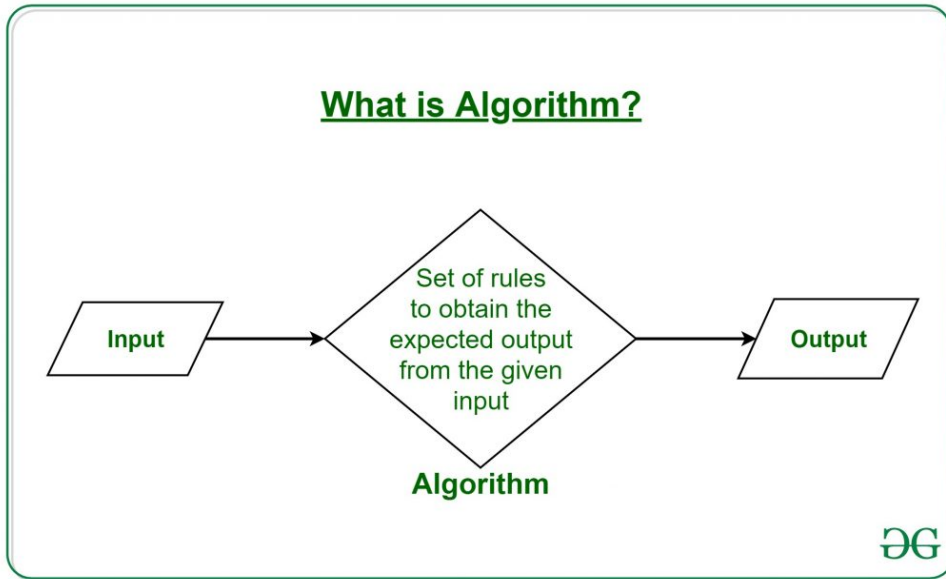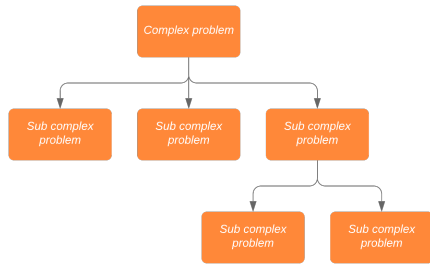## Prof. Graber

CMPSC 101 - Data Structures

Spring 2025
M/W/F 9-9:50am
Tu 2:30-4pm
Alden 101

Where are we?

- Department of Computer and Information Science
- Four Majors/Minors

    - Computer Science
    - Data Science
    - Informatics
    - Software Engineering

- Common Doubles

    - Art, Science, and Innovation
    - Economics

What is this course about?

- breaking apart complex problems
- organizing all subproblems
- calculating solutions to subproblems with algorithm
- storing and structuring the calculations

Learning Outcomes

1. Describe data structures and algorithms and their inherent trade-offs.
2. Solve problems using data structures and algorithms.
3. Characterize the performance of data structures and algorithms with empirical methods.
4. Use IDEs, version control, test suites, and other industry standard tools.
5. Document code in markdown.

Other Syllabus Highlights

- Discord usage is a major part of participation (20% of overall grade)
- Quizzes on the day following lab, including this week
- Labs are due before lab!
- Four tokens grant automatic extensions for one week

- After the first week, five absences will be excused before overall grade is impacted
  - three lates are equivalent to an absence

Materials

- Course Website
  - syllabus
  - assignment schedule for reading and assignment due dates
  - links to all course materials

Materials Continued

- GitHub for accessing and submitting assignments
- Python Notebooks/Google Colab for coding examples
- Google Forms for participation and group activities
- Discord for announcements and participation
- Canvas for grades

Tell us about yourself!

Name, where you are from, first favorite band, and some of your current favorite foods?

CIS Shared Values

What if?

- a student knows they are going to be late to a one-on-one office hours appointment?
- a student wants to submit their work late but not use a token?
- 40% of students in a course listed the same 8 foods as their favorite foods on an exam
- a student has a question but has not reviewed notes or read the textbook?
- a student writes about a topic that is not in the textbook or notes on an exam?

Setting up

- bookmark the website
- bookmark access to your repos
- bookmark the 101 Discord Channel, or access from the course website
- bookmark notes that you take in Google Colab or elsewhere
- bookmark Canvas
- etc.

Software Installation!

Switch over to the next document