# CSCI 262 Data Structures

1 - Introduction

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# Introductions

Instructor (Sections A, B, & R01) & Coordinator: Christopher Painter-Wakefield

aka Dr. Painter-Wakefield, Professor Painter-Wakefield, or CPW

#### Office Hours:

- Wednesdays 3:00-5:00 pm
- Thursdays 1:00-3:00 pm
- By appointment

Whenever my office door is open

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## **Introductions**

Instructor (Sections R02 & R03): Clayton (Clay) Kramp

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## What This Semester Is About

#### Learning objectives:

- Know basic data structures
- Understand and use (most of) C++ features
- Understand performance of algorithms

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# What This Semester Is About

#### Learning objectives:

- Know basic data structures
  - What they are and how (and when) to use them
  - Know how to design and program them
  - Learn about the Standard Template Library
- Understand and use (most of) C++ features
- Understand performance of algorithms

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# What This Semester Is About

#### Learning objectives:

- Know basic data structures
- Understand and use (most of) C++ features
  - Extensions to stuff you already know
  - Pointers & dynamic memory management
  - Templates
  - Inheritance
- Understand performance of algorithms

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#### What This Semester Is About

#### Learning objectives:

- Know basic data structures
- Understand and use (most of) C++ features
- Understand performance of algorithms
  - How computer scientists measure performance
  - How to analyze performance of an algorithm
  - Performance of algorithms and data structure operations

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## Course Information

All course info is on the web at:

https://cs.mines.edu/Courses/csci262/fall2018

Lecture notes and assignments will be added regularly, so please check the site frequently!

We will also use Piazza for much of our communications (rather than Canvas), so it is important that you are on Piazza. It is linked from the course website.

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# Welcome Back

What you learned in CSCI 261 (or equivalent):

- Variables
- Functions
- Types
- Recursion
- Arrays
- Classes & Objects
- Expressions

- Streams
- Conditionals
- Vectors
- Branches & Loops
- Strings

You remember all of this, right? ©

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# Up Next

- Today and Wednesday: Review Material
- Please skim/review chapters 1 6, 8, & 9 in your textbook
- Friday, August 24:
  - Lab 1 Compile
  - APT 1 assigned

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