

CSCI 262 Data Structures

1 - Introduction

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Introductions

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

aka Dr. Painter-Wakefield, Professor Painter-Wakefield, or CPW
Personal pronouns: he, him, his

Office Hours:

- TBA
- By appointment
- Whenever my office door is open

Office: BB 280N

Email: cpainter@mines.edu

Phone: 303-273-3717



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Introductions

Instructor (Sections B, C, R02, R03 & R04):
Clayton (Clay) Kramp

Personal pronouns: he, him, his

Office hours: TBA

Email: ckramp@mymail.mines.edu



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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-courses.mines.edu/csci262/spring2019/>

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 Thursday: Review Material
- Please skim/review chapters 1 – 6, 7.7, 8, 9.1 – 9.9, and 9.11 in your textbook
- Friday, January 11:
 - Lab 1 – Compile
 - APT 1 assigned
 - Reading: Chapter 7.1 and optionally Appendix F
- TBA (tentative: 6pm Thursday, 3pm Sunday)
 - (Optional) Transitioning from Java to C++ sessions

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