First day announcements

- There will be no live lectures the first week. Mon. Wed. and Fri. will be online the first week.
- This is the Covid Semester version 2.1, I might have to change everything on this page and intro video next week……..please be flexible and try not to get frustrated…….I will do my best to do the same.

CSCI 305: Concepts of Programming Languages

Catalog Data

Fall, Spring, 3 cr.

An examination of several programming paradigms, and languages, as well as their application and underlying execution model. Paradigms examined include imperative, object-oriented, functional, logic and string based. Students will gain exposure to a variety of languages such as ~~C, C++~~ Scala, ~~Scheme~~ Haskell, Prolog, and ~~Perl~~ Python.

Textbook

Required:

Robert Sebesta, **Concepts of Programming Languages** (12th Edition)

It's an e-text only, Get it here:

I put the link on the D2L announcements

Instructor

Hunter Lloyd

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Office Hours:

https://www.cs.montana.edu/office-hours.html

Prerequisites

- CSCI 132–Basic Data Structures and Algorithms:
- CSCI 246–Discrete Structures:
- CSCI 112–Programming with C: (Strongly recommended)

Objectives

Students will:

- Understand the history of programming and the development of languages
- Understand different models for programming
- Understand the relationship between system architecture and programming languages
- Understand how language designers take different design approaches based on language goals
- Gain practical experience with several new programming languages

Learning Outcomes

After successfully completing this course, students will be able to:

- Learn a new programming language on their own
- Identify an appropriate programming language for a new project
- Explain why a programming languages model is appropriate for a task.
- Take a course on Compilers

Grading

- Quiz one 10%
- Quiz two 10%
- Assignments from book 25%
    - Starting on chapter 3, almost every chapter will have a homework assigned after the last lecture covering the chapter.
- Programming Language Assignments 40%
    - There will be six two week projects that will cover the language we cover on that Friday. All projects and points are listed in the Contents. Every other Friday

- Final Exam 15%

Language Fridays:

Programming Languages we will use (subject to change as trends change):

- Go
- Rust
- Pascal
- Fortran
- Lisp
- Prolog
- Dart
- Kotlin
- C#
- And a few more.....

Tools we will USE:

- Linux VM (Scott set up)
    - Many compilers (Not even sure what's all on there)
- Mostly SSH in and everything will be old school command line

- I'll give the basic command line commands in the Fortran lecture
- And some more….

Policy on Collaboration and Academic Misconduct

Collaboration IS encouraged, however, all submitted individual work must be your own and you must acknowledge your collaborators at the beginning of the submission.

I don't anticipate any group or team assignments, but just in case..... On any group assignments, every team member is expected to make a substantial contribution. The distribution of the work, however, is up to the team.

By participating in this class, you agree to abide by the student code ofnduct

Policy on Assignments

All assignments will have due date with a time associated. All times will be in Mountain Standard Time. **Late assignments will not be accepted**.

Classroom Etiquette

Except for note taking, please keep phones off during class. Talking during in this lecture room is heard by all, you can't whisper low enough that this new room doesn't pick it up.

Each student will have one of the two lecture days to attend, based on last name. Live lectures will be recorded for those that do not wish to come to campus.

Special needs information

Students with special needs or requiring special accommodations should contact the instructor and the Disabled Student Services Office at the earliest opportunity.

Blue card holders will get a code to take the quiz/exams in Testing Services if needed.