

CS 330 - Programming Language Project (PLP) description

Instructor: Amber Stubbs, PhD
stubbs@simmons.edu

This class is all about programming languages: how they work, what they have in common, and how they differ. To that end, you will pick a language that you want to learn and use it as the basis for homework assignments, culminating in a large-scale final project at the end of the semester. You are encouraged to pick a language that you have not programmed in before; students who chose languages that they are familiar with will be graded to a higher standard and will have to do more in-depth homework assignments and turn in a more complicated final project in order to earn an A. You cannot choose Perl; that will be the example language used in class.

You must check with me for approval of your language before you begin working with it.

Over the course of the semester, we will address the following topics as they relate to programming languages in general; most homework assignments will be about how these general topics relate to your language in particular. The homework topics and anticipated due dates are listed below, but may be changed at any time. Please note that these assignments will be **in addition** to any others needed for the course:

- Language selection and overview: Jan 29
- Installation, programming environment, and "Hello, world": February 5
- Data types and syntax conventions: Feb 12
- Control flow: Feb 26
- Functions and parameters: March 4
- Naming, scope, and bindings: March 18
- Plan for final project programming task: March 25
- Check-in for final project: April 8

Final programming project and presentations: Week of May 2

The final programming project and presentation are the "final project" portion of your grade and count for 25%.

Guidelines for homework assignments

All of these assignments (except the first one) will require both a written report and code that demonstrates the concepts in the report. The report will describe how the concepts we are discussing in class relate to the language that you chose. It must include references to the sources (websites, books, etc.) that you used to find the answers to the questions on the assignment. It should be written as a guide for new users—imagine that you are tasked with teaching another student about the language, and are putting together a useful set of tutorials and demonstration code. The guide and code will be posted to your GitHub repository, so all materials must be professional and your own work.