

Curriculum For Introduction to Programming.

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May 15, 2017

1 Course Objectives

Basic computer programming knowledge and skills in logic and syntax will be covered. This course serves as a foundation for understanding the process of computer programming and will teach the student the various concepts needed to write programs of their own.

- Learn the syntax of writing Python programs and how to use the Python shell.
- Create various functions.
- Create computer programs that can make decisions.
- Create computer programs that can do repetitive processing.
- Design and write you own programs.

2 Programming Languages.

When you program you need to use a programming language. There are many different languages and some have specialized uses. For example there are languages designed for databases, mathematics, business applications, and web development. In this course we will use the programming language Python. You can download it from <https://www.python.org>.

3 Course Outline.

1. Fundamental concepts.
2. Writing simple programs with the Python shell.
3. Program design. What are variables and functions?
4. Programming logic.
5. Making decisions.
6. Looping and repetition.
7. More on variables and their types.
8. More on functions.
9. Objects.
10. Designing and coding your own programming project.
11. Modules. Making your project into an installable Python module.
12. Advanced topic. TBA.