Introduction to Programming Syllabus

This course will introduce the beginning programmer to programming structure and design, creating a solid foundation for all types of programming. The emphasis will be on procedural programming and control structures, although exercises will be in Python.

Instructor: Lisa Karstens, PhD   Office Number: 503-418-8877   Email: karstens@ohsu.edu

Required Textbooks:


Select readings from additional resources (available on Sakai).


**Note:** There are older and/or newer editions of these textbooks, be sure to get the right editions.

Grading:

The evaluation consists of:

- 35% - Conceptual Assignments completed under Test & Quizzes on Sakai (9 assignments)
- 35% - Programming Assignments turned in through Submissions on Sakai (9 assignments)
- 30% - Final Examination

The final grade is Pass/Fail and a grade of 70% or more is required for a Pass.

Assignments should be turned in by the due date, which is one week after they are released. *Late assignments will only be accepted up to one week past the due date and will receive a 10 point deduction.* Graded assignments are returned within two weeks of submission.

Programming requires paying attention to detail. As such, points will be deducted from homework for not following instructions. Be sure to follow all instructions in the assignments, including how to name your files and the types of files to turn in.

Computing requirements:

In order to write and run Python programs, the student will be required to have a computer with Python version 2.7 available. Instructions will be given in the first module. In addition, a drawing program will be required: MS Word or PowerPoint is suitable although MS Visio makes flowchart diagramming much easier. Google Docs also works well.

Goals:

- Learn to represent programming logic in pseudocode and flowcharts.
- Learn to write and test simple Python programs.
- Learn to select test data for programs
- Understand correct naming and declaration of variables and constants.
• Become proficient in structured programming and conversant about object-oriented programming.
• Understand the advantages of and methods for modularization of programs.
• Learn to use boolean expressions in if-then structures for making decisions.
• Learn to use looping structures and how to end loops.
• Learn to use arrays including multidimensional arrays and practice using them in sorting algorithms.

Modules:
This course consists of 10 modules. Each module contains:
• assigned readings from the textbooks and other resources
• lectures available for viewing along with a handout and audio files
• programming files
• a homework assignment (modules 1 – 9)

This course releases one module per week. Each module is posted by 9am PST Monday morning, and the assignments are due the following Monday at Midnight PST.

The final examination will be made available on August 31, 2016. The exam will be due on September 7, 2016.

DMICE Communication Policy
1. If the syllabus directs the student to contact the TA before contacting the instructor, the student should do so. Otherwise, the student should contact the instructor and allow 2 business days (not including weekends) for a response.

2. If the student does not receive a response from the instructor within 2 business days, s/he should contact the TA (if there is one). When contacting the TA s/he should cc the instructor and Diane Doctor at doctor@ohsu.edu.

3. If a student does not receive a response from the TA within 1 business day (not including weekends), s/he should contact Diane Doctor at doctor@ohsu.edu and cc the instructor and the TA.

4. If Diane does not reply within 1 business day (not including weekends), the student should contact Andrea Ilg at ilgan@ohsu.edu.

5. Students having difficulties with Sakai should contact the Sakai Help Desk at sakai@ohsu.edu or at (877) 972-5249. Sakai help is available M-F from 8am to 10-pm and weekends from Noon to 5pm. Do not contact the instructor.

Professional Conduct Policy:
While discussion between students and use of external resources are important learning tools, all homework assignments and the exam are expected to be the work of the enrolled student only. Any violation will result in zero points for that homework assignment or exam. Students enrolled the certificate, BMI, or MS program should review the professional conduct policy of the Graduate Studies Program, which can be found on the enrolled student website at: http://www.ohsu.edu/ohsuedu/academic/som/dmice/students.cfm
**Student Access**

OHSU is committed to providing equal access to qualified students with disabilities. Student Access determines and facilitates reasonable accommodations, including academic adjustments and auxiliary aids, for students with documented disabilities. A qualified student with a disability is a person who meets the academic and technical standards requisite to admission or participation in a particular program of study. As defined by the Americans with Disability Act (ADA), a person with a disability has a physical or mental impairment that substantially limits one or more major life activities of the individual. This may include, but is not limited to, physical conditions, chronic health issues, sensory impairments, mental health conditions, learning disabilities and ADHD. Student Access works with students with disabilities from all of OHSU’s educational programs and at each campus.

Each school has an assigned Program Accommodation Liaison (PAL), who acts as an “in-house” resource for students and faculty concerning access issues for students with disabilities. The PAL works in collaboration with Student Access to implement recommended accommodations for students with disabilities.

It is recommended that you contact Student Access to consult about possible accommodations if you a) received disability accommodations in the past, b) begin experiencing academic difficulties, and/or c) are given a new diagnosis from your healthcare provider.

Learn more about Student Access:

Phone: 503 494-0082  
Email: studentaccess@ohsu.edu  
Website: www.ohsu.edu/student-access

**Use Of Sakai**

This course will have an online component, which can be accessed through Sakai, OHSU’s online course management system. For any technical questions or if you need help logging in, please contact the Sakai Help Desk.

Hours: Sakai Help Desk is available Mon – Fri, 8 am – 9 pm and weekends 12 pm – 5 pm. The Sakai Help Desk is closed on OHSU-observed holidays.

Contact Information:

(Toll-free) 877-972-5249  
(Web) http://atech.ohsu.edu/help  
(Email) sakai@ohsu.edu