

University of the Fraser Valley

Course: Introduction to Programming (COMP 150)

Semester: Win 2021

Program(s): Computer Science, Computer Information Systems, ...

Professor: Amir Shabani, Ph.D., P.Eng.

Email: amir.shabani@ufv.ca

Lecture and Lab Sessions(online-BB):

- All classes will be online this semester, so you will be accessing the class via a virtual audio/video link provided on BB. The recording of the video lectures are available on BB.
- Check the course sell announcement on BB for more links and details.

Course Overview:

This course provides an introduction to the programming language using Python. After completing this course, you will be able to write:

- cohesive computer programs;
- well-documented and effective program code; and
- programs to solve a variety of problems using various constructs supported by the taught programming language.

Textbook:

There are no required textbooks but the following e-books (available online) are relevant to learning various concepts that will be taught:

- • "Python for Everybody: Exploring Data Using Python 3" by C.R. Severance.
(http://do1.dr-chuck.com/pythonlearn/EN_us/pythonlearn.pdf)
- • "Think Python: How to think like a Computer Scientist, 2nd Ed - Version 2.4.0" by A.B. Downey.
(<http://greenteapress.com/thinkpython2/html/index.html>)
- • "How to think like a Computer Scientist: Learning with Python 3 (RLE)" by P. Wentworth, J. Elkner, A.B. Downey, and C. Meyers.
(<http://openbookproject.net/thinkcs/python/english3e/>)
- Interactive Edition - <https://runestone.academy/runestone/books/published/thinkcspy/index.html>)
- The lectures are designed to be self-contained. However, the textbook readings are essential in comprehension and mastering the topics in this course.
- It is expected that students will spend decent amount of time outside the class to read the corresponding chapters of the books covering previous session(s) to be prepared for the next session(s).
- There is a great degree of dependency in the order of the coverage of the materials. Hence, missing classes and not doing the assigned work may result in getting behind.

Labs/assignments:

- Labs and assignments are individual work, unless otherwise stated.
- There is a student who is the lab monitor and helps you for the labs.
- The deadline for the submission will be announced in the lab/assignment manual. Students are supposed to submit their labs and assignments on BlackBoard before the deadline.
- No late submission will be accepted.

Academic Integrity:

- Any form of cheating or plagiarism will be considered serious and will not be tolerated. You are required to read and adhere to the regulation(s) on Academic misconduct as outlined here: <https://www.ufv.ca/ai/> (search for - Student Academic Misconduct Policy).
- The definition of academic misconduct according to the UFV's policy can be found here: <https://www.ufv.ca/ai/student-information/academic-integrity-and-misconduct/>.

Evaluations:

The following table summarizes weight distributions for all assignments, quizzes, and mid-term and final exams.

Grade Item	Weight
Assignment 1	5%
Assignment 2	7.5%
Assignment 3	7.5%
Lab Works	10%
Sub-Total	30%
Quizzes	5%
Mid-term Exam	25%
Final Exam	40%
Overall Total	100%

There will be a midterm and a final exam in the following formats:

- Containing some programming questions, similar to the Lecture/Lab exercises. They are designed as such to test your programming knowledge and skills.
- Containing some multiple choice questions, TRUE/FALSE, Short answers. These are designed to test your understanding of the content of the course.
- Both midterm and final exams will be closed-book. In particular, other than your writing materials - you will not be allowed to use any other materials (e.g., paper-based or electronic). It is your responsibility to study well and be prepared to succeed exceptionally.

Schedule

The following schedule is tentative and subject to change for the benefit of the student's learning experience and unforeseen circumstances.

Week #	Materials to be covered	Activity	Dues
Week 1	Course Information and Python Basics (Chapters 1, 2)	—	—
Week 2	Flow of Control - Branching (Chapter 3)	Lab 1	Lab 1
Week 3	Flow of Control - While-loop (Chapter 5)	Lab 2, Assignment 1	Lab 2
Week 4	Flow of Control - While-loop (Chapter 5)	Lab 3	Lab 3
Week 5	Flow of Control - For-loop (Chapter 5)	Lab 4	Lab 4, Assignment 1
Week 6	Functions (Chapter 4)	Lab 5, Assignment 2	Lab 5
Week 8	Midterm Exam		
Week 9	Lists (Chapter 8)	Lab 6	Lab 6
Week 10	Lists (Chapter 8), Strings (Chapter 6)		Assignment 2
Week 11	Strings (Chapter 6)	Lab 7, Assignment 3	Lab 7
Week 12	Modules and I/O (Chapter 7)	Lab 8	Lab 8
Week 13	Dictionaries (Chapter 9) and Tuples (Chapter 10)	Lab 9	Lab 9, Assignment 3
Week 14	Recursion	Lab 10	Lab 10
Between Apr. 14-24	Final Exams (to be scheduled by admissions and records dept).	—	