Introduction to Computer I

Description: Problem solving and algorithm design. Basic principles of software engineering: structure decomposition, documentation, testing and debugging. Variables types, expressions and assignments. Conditional and iterative control structures. Modules and parameter passing Recursion. Fundament data structures; arrays, strings, matrices, records. Introduction to objects.
Includes examples of application in various disciplines, including engineering.

Professor: Aziz Abdesselam's email address: aabdesse@uottawa.ca
Course Web site: uottawa.brightspace.com
Online Office hours: Tuesday 4-5:30pm and Wednesday 5:30 to 7pm

Manual: *"Introduction to Computing Using Python: An Application Development Focus, 2nd Edition"* by Ljubomir Perkovic

"Practical Programming: An introduction to Computer Science Using Python3" by Paul Gries Jennifer Campbell and Jason Montojo.

"*Think Python, How to Think Like a Computer Scientist*" by Allen Downey
(Web-version: **http://openbookproject.net/thinkcs/python/english3e/**)

Labs/Tutorials: Weekly and mandatory.
Supervised by a TA that will assist you if you need help.
Could start or end with a quiz.

Grading:

HWs (6):	36 %
Labs/Quizzes:	8%
TESTS (4):	56%

NOTE on the passing grade:
You must pass both the Tests and Quizzes (Tests + Quizzes $\geq$ 32%) in order to take into account the HW marks in the total average, otherwise you get an E.
HWs are to be submitted via Brightspace.
No late HW will be accepted.

TESTS: No documentation is allowed.
No make up TEST. The material is cumulative.

Plagiarism policy: **http://web5.uottawa.ca/mcs-mc/academicintegrity/regulation.php**

Plagiarism is a form of fraud: passing off someone else's work or ideas as your own in order to get a higher mark. Plagiarism is treated very seriously. The assignments you hand in must be your own and must not contain anyone else's ideas. Refer to the University of Ottawa's Policy on Academic Fraud for a more detailed description of plagiarism and sanctions.

Guidelines to help avoid plagiarism

You may discuss assignments with friends and classmates, but only up to a point: you may discuss and compare general approaches and also how to get around particular difficulties, but you should not leave such a discussion with any written material. You should not look at another student's solution to an assignment on paper or on the computer screen, even in draft form. The actual coding of your programs, analysis of results, writing of reports and answering assignment questions must be done individually.

Downloading code or any other material from the Internet, and submitting it as your own work without credit is also plagiarism. If you do talk with anyone about an assignment, please state this in your assignment and state the extent of your discussion. If you use another resource (such as textbooks, internet resources, etc.) when solving your assignment, include the proper reference.

Note that it is also a serious offense to help someone commit plagiarism. Do not lend your assignment answers, printouts, reports or USBs, and do not let others copy or read them. To protect yourself against people copying your work without your knowledge, retain all of your old printouts and draft notes until the assignments have been graded and returned to you. If you suspect that someone has stolen a printout or USB contact your instructor immediately.

Helping Each Other

Although you must not solve your assignments with the help of others, there are still many ways in which students can help each other. For instance, you can go over difficult lecture or lab material, work through exercises, or help each other understand an assignment handout. This sort of course collaboration can be used to discuss techniques and tools used in assignments, but the discussions should never mention or present any potential or partial solutions to assignment questions. You can consider creating a study group.

If in doubt about whether a question you are asking or answering is against these guidelines, ask your instructor instead.

Detecting Plagiarism

Measures taken to detect plagiarism

1. TAs have been instructed to report any suspicious of plagiarism they find, when they mark assignments, to the professor.
2. Programs that you submit may be screened using plagiarism detection software that is very effective at detecting similarities. The professor will take appropriate measures, once plagiarism is detected on part or on the whole of an assignment. Note that copying or lending is considered to be equally serious offenses.

Reference

This document is a translation of the French document prepared by Daniel Amyot and is based in part on "Policy on Plagiarism" by Dr. Amy Felty (September 2002).

Suggestions for ITI1120

– The course material is built gradually. Do not fall behind (once the train has reached a certain level and pace, it is going to be too late)
– Program as much as possible (HWs, Labs, Examples, etc.)
– After class, “play” with the codes done in class. Get back (office hours or just after class) to me if you have issues.
– Do not be afraid to make mistakes, you learn a learn a lot from them (and others’).
– Follow a modular approach when programming, use separate functions to perform specific tasks, it is good practice and helps during debugging.
– This is a huge class in terms of number of students, the audience is also very diversified, do not hesitate to let me know if you feel that I am going too fast and I am losing you.