



**Department of Computer Science**  
**CMPT 101 Computer Science I**  
**Course Syllabus Spring 2015**

Instructor: Dr. Ankur Agrawal

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Office Hours: WR 3:00pm – 4:00pm or by appointment in RLC 203C

Class Hours: MWR in RLC 107, 4:30pm – 5:20pm

**Overview**

This course provides an introduction to programming and computer science, including flow control, loops, arrays, strings, and an introduction to objects. The emphasis will be on the logical analysis of a problem and the formulation of a computer program leading to its solution using Python. Students will be required to do a variety of projects in the Python language which may involve graphics, animations, games, and programs which download and process live data from Internet sources.

**Prerequisites**

None

**Textbook**

Introduction to Computing Using Python: An Application Development Focus by Ljubomir Perkovic ISBN 978-0-470-61846-2

**Course Objectives**

- Learn the basics of Python programming
- Learn to analyze a problem and construct a Python program to solve it
- Learn to use control structures and loops
- Learn the basics of modular programming
- Learn the basics of file IO
- Learn to deal with bugs

**Course Outcomes**

- Able to understand the form and structure of Python programming language
- Able to analyze a problem and construct a Python program to solve it
- Able to implement good programming practices
- Able to understand and use different control structures and loops
- Able to use and manipulate several core data structures such as strings, lists, tuples and dictionary
- Able to implement user-defined functions
- Able to read from and write to a file



- Able to test and debug a program

### **Tentative List of Topics**

- Introduction to computer science and programming language
- Python basics
- Turtle graphics
- Execution Control Structures
- User-defined functions
- Objects and classes
- Text data and files
- Dictionaries
- Additional topics at the instructor's discretion and time-permitting

### **Method of Evaluation**

- There will be two midterm exams worth 30% of the course grade.
- There will be a final exam worth 20% of the course grade.
- There will be quizzes worth 15% of the course grade.
- There will be a presentation and report writing worth 10% of the course grade.
- Assignments, attendance and class performance will be worth 25% of the course grade.

Dates for exams will be announced in the class. Final grades will be based on the following scale: A (95-100), A- (90-94), B+ (85-89), B (80-84), B- (75-79), C+ (70-74), C (65-69), C- (60-64), D (50-59), F (<50). The instructor reserves the right to adjust the grading percentages and scale if necessary.

### **Success in Class**

- Read the assigned pages in the book as per the class discussion.
- Do as many exercises as possible even if they are not assigned.
- Ask questions about parts of reading or lecture which you do not understand.
- Get help before you are completely lost. I am available to help you via e-mail, in the classroom, or in my office.

### **Center for Academic Success**

Tutoring and support to students is offered in the Learning Center (DLS 206), Leo Learning Center (Leo 117) and the Writing Center (Mig 203).

### **Attendance Policy**

Attendance in every lecture is mandatory. Being in class on time is equally important. Any absence for valid reason will be required to be supported with proper documentation.

### **Cheating Policy**

Cheating will result in zero credit for all students involved. Cheating on an exam will result in an "F" in the course. Programming assignments may not be solved in collaboration, unless specifically stated in the assignment. You may discuss problems with each other. Where does discussion end and cheating start? You may not copy lines of code from anybody or anywhere. You may not use code in your



assignments that you did not write. As a general rule, if you don't understand the code and can't explain the code, you can't use the code.

### **Policy on Students with Disabilities**

Students with Disabilities should contact the Specialized Resource Center with their appropriate documentation, to obtain an "Academic Adjustment/Auxiliary Aid" form. When the student presents this completed form to the professor, the professor will then confer with the student on the fulfillment of the adjustments/aids listed on the form.

### **Academic Integrity Expectation**

In accordance with the Manhattan College policy on Academic Integrity, students are expected to do their own work. If they use somebody else's work, then that fact should be documented. Individual work is to be done individually and not copied from others and it is expected that you will perform all exams without consulting others and do your own work on any assignments. Consulting with others on general approaches to take in an assignment is considered acceptable, but copying assignments from others or working the majority of the assignment together is not acceptable. Of course group work is done in a group. See <http://manhattan.edu/community-standards-and-student-code-conduct> for more information on Manhattan College policy on Academic Integrity.