CSC 160-01 Fall 2013
Computer Programming for Non-Majors
Prof. A. Wittenstein

Contact Information
Office Location: Post Hall 103   Course Web Page: http://www.adelphi.edu/~wi16133/csc160/f13
Email: Wittenstein@adelphi.edu   Office Hours: MW 5:30-6:00pm, in Swirbul 100
                                                              Other days/times by appointment, in Post 103

Class Meetings
M/W 4:15-5:30pm, Swirbul 100 (W 8/28 → M 12/9)
--M 9/2: Labor Day – No Classes
--W 11/27: Thanksgiving Recess – No Classes
--W 12/11: Makeup Day
          *If any class meetings are cancelled during the semester, then a mandatory makeup class will be held.
          *If no class meetings are cancelled during the semester, an optional Final Exam Review will be held.
--W 12/18: Final Exam – from 3:30-5:30pm

Course Description
There are no prerequisites, as this course is intended for students with little or no experience in computer programming. It gives students a feel for what programming is like, introduces the process of program development, and introduces the major concepts of programming --- variables, data types, functions, parameters, assignment statements, conditionals, compound data types such as structures, lists, and arrays, and repeating constructs such as loops and recursion. In this course, students will write programs in the Racket programming language, which is a descendent of the Scheme and LISP programming languages.

General Education
- For students who were admitted to Adelphi prior to Fall 2011 or transferred to Adelphi prior to Fall 2012, this course counts as a "Science and Mathematics Distribution Course".
- For students who were admitted to Adelphi for Fall 2011 or later or transferred to Adelphi for Fall 2012 or later, this course counts as a "Formal Sciences Distribution Course" and satisfies the University Learning Goal in "Quantitative Reasoning".

Course Learning Goals
- Students will write examples for programs in Racket notation and write descriptions of the results.
- Students will use the Design Recipe to create Racket computer programs.
- Students will test if a Racket program works correctly by running the program with the examples previously written and making sure the results match the descriptions they wrote.

Grading
Assignments   30%   Midterm Exam 20%   (Weds. 10/23: 4:15pm-5:30pm, date is tentative)
Quizzes   20%   Final Exam   30%   (Weds. 12/18: 3:30pm-5:30pm)

Moodle Learning System
- To access Moodle, log on to your eCampus account, then click on the Moodle tab.
- All grades (for assignments, quizzes, and exams) will be posted to Moodle.
- All lecture PowerPoint slides, assignments, and assignment solutions, will be posted to Moodle.
- Each assignment on Moodle will include a link to be used to submit the assignment.

Texts

--Bloch, Stephen. Picturing Programs: An introduction to computer programming. College Publications, 2010. (ISBN-13: 978-1-84890-015-8) – Textbook website: http://picturingprograms.com

--Links to additional readings will be provided through Moodle by clicking on Calendar.

Attendance

Attendance is required. After four absences, your grade will be lowered by one-third of a grade (e.g., A to A-, A- to B+, etc.). You are also responsible for whatever work is covered in class *whether or not you are there*. Absence from quizzes, the midterm and the final exam will be excused only for a good and **well-documented** reason. The decision to allow a make-up exam will be made in accordance with the policies of Adelphi University. Please arrive to class *on time* whenever possible. Also, latenesses (or leaving early) will count as partial absences. But, I would much rather you arrive late or leave early, then miss an entire class session.

If I know in advance that I will be absent or late for a class, then I will post this information to Moodle, and Moodle will automatically send an e-mail to your Adelphi e-mail account. *In the rare case that I am not there at the start of class and there is no Moodle posting, then you should wait in the classroom until 4:35pm, as I am probably just running late.*

Course Expectations

As is typical of undergraduate courses, lectures will not cover everything you need in order to complete the homework assignments. While the class meetings will highlight the important parts of the material, there will not be time in class to cover all of the material in each reading assignment in detail. Therefore, having access to, *and reading*, the textbooks is an essential component of this course. I do not expect you to understand everything in the reading assignments. I do, however, expect you to ask me questions about anything that you do not fully understand in a reading assignment, either by e-mail, in office hours, or during the lecture covering that material. To benefit most from the reading assignments, they should be read *before* the class session covering those sections.

Since this course meets for three credit hours per week, it is expected that on average you do 3-6 hours of work for this course per week outside of class time. Please budget this time to ensure that homework and reading assignments are completed on time. It is known that especially in beginning programming courses, it is of the utmost importance for students to *keep up with the readings and assignments*. If you are having difficulty or fear that you are falling behind, please contact me as *soon* as possible, either by e-mail or by seeing me during office hours.

Required Homework Exercises

In addition to the reading assignments, required homework exercises will be assigned at most class meetings. Required homework exercises are due at the start of class on the Monday of the week after they are assigned, unless announced otherwise, either on paper or through the Moodle Learning System (see below).

All homework assignments are to be submitted on the announced due date either in class or via the Moodle Learning System by 11:55pm. Ten points will be taken off per day (or portion thereof) for late assignments. Late assignments will not be accepted after solutions to the assignment are posted to Moodle or discussed in class.

The first line of every assignment *must* contain a comment indicating the name(s) of the student(s) working on it and which assignment it is. Assignments not containing this information, clearly visible, will get a zero grade.

Most of the homework assignments will involve programming. It is your responsibility to make sure you understand the relevant reading assignment before beginning to program. If you have done that and still have difficulty, you need to e-mail me at least 2 days prior to the due date to receive assistance. This means if an assignment is due on Monday, you need to e-mail me by Saturday.

I encourage you to ask me questions about homework exercises, by email or during office hours. However, for required homework exercises, I will only give a hint on how to start or where in the textbooks to refer to. I will not solve any required homework exercise for you, prior to collecting it for grading. With that said, I will be glad to fully show you the solution to any exercise that is not a required homework exercise.

In general, class time cannot be allotted to the review of graded homework. However, I will post the answers to the required homework exercises on Moodle, within one week after the homework due date. For further review of graded homework, please attend my office hours.

Academic Honesty

Students enrolled in this course are expected to abide by the Adelphi University's Honor Code and its policies on Academic Honesty, which can be viewed on the web at http://academics.adelphi.edu/policies/honesty.php. Violations of these standards, including (but not limited to) plagiarism of any portion of an assignment or misconduct during quizzes & exams, will be dealt with in accordance with University regulations & procedures.

You are encouraged to discuss general ideas regarding homework problems with your classmates and/or tutors, but you must write up the solutions independently, or in pairs with another classmate from this section of CSC 160. You cannot "pair-off" with the same person more than once during the semester. When I say "pairs", I don't mean that you each do half the questions. I mean that you are both working *together* on *all* of the assignment. When working in pairs, submit one assignment with both names on it.

No credit will be given for any assignment submission, or portion thereof, that is substantially similar to another student's, or pair's, assignment submission. I will not try to figure out who copied from whom; it is your responsibility to not let anyone copy your homework.

Disabilities

If you have a disability that may impact your ability to carry out assigned course work or complete quizzes and exams, and are not already enrolled in the Learning Disabilities Program, it is important that you contact the staff in the Disability Support Services Office (DSS), University Center, Room 310, (516) 877-3145, DSS@adelphi.edu. If you have a physical, medical or learning disability and require accommodations, please notify the instructor and present appropriate documentation within the first two weeks of the semester.

Student Course Evaluations

About 2 weeks before the start of Final Exams, the course evaluation will become available to you on eCampus. Availability will end just before the first day of Final Exams. Your feedback is valuable to me in making improvements to the course for future students. Please be assured that your responses are anonymous and that the results will not be available to me until after your final course grades are submitted to the University.

Tentative Schedule of Topics

I. Running and Writing Programs
Chapter 0: Introduction
Chapters 1-3: Drawing pictures
Chapters 4-5: Writing your own functions
Chapter 7&9: Working with numbers and strings
Chapter 11: Multi-function programs

II. Making Decisions
Chapters 13&15: Booleans & Conditionals
Chapter 16: New types and templates

III. Complex Data
Chapter 20: Using Structures
Chapter 21: Inventing New Structures
Chapter 22: Lists and Recursion
Chapter 23: Functions that return lists

IV. Additional Topics (time permitting)
Functions that return lists
Animations
A Hint of Java

*A day-by-day Calendar can be found on Moodle. This calendar will be updated throughout the semester as dates may shift, such as when a topic which is planned for 1 day actually takes 2 days, or vice-versa.

STUDENT ACKNOWLEDGEMENT:
I HAVE READ AND UNDERSTOOD THE SYLLABUS FOR FALL 2013 CSC 160-01

Signature: _____   Printed Name: _____   Date: _____