

**Department of Mathematics and Computer Science
Adelphi University**

**CSC 160-01 Spring 2014
Computer Programming for Non-Majors
Prof. A. Wittenstein**

Contact Information

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Course Web Page: <http://www.adelphi.edu/~wi16133/csc160/s14>

Office Hours: MW 5:30-6:00pm, in Swirbul 101

Other days/times by appointment, in Post 103

Class Meetings

M/W 4:15-5:30pm, Swirbul 101 (M 1/27 → W 5/7)

--M 3/17 & W 3/19: Spring Break – No Classes

--F 5/9: 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 5/14: 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 making sure the results match the descriptions they wrote.

Students With 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. DSS will review your concerns and determine, with you, appropriate and necessary accommodations. All information and documentation of disability is confidential.

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.

Academic Honesty

Students enrolled in this course are expected to abide by 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>. The purpose of the Honor Code is to protect the academic integrity of the University by encouraging consistent ethical behavior in assigned coursework by students. The following is excerpted from the Student Honor Code:

The code of academic honesty prohibits behavior, which can broadly be described as lying, cheating, or stealing. Violations of the code of academic honesty will include, but are not limited to, the following:

1. Fabricating data or citations
2. Collaborating in areas prohibited by the professor
3. Unauthorized multiple submission of work
4. Sabotage of others' work, including library vandalism or manipulation
5. Plagiarism: presenting any work as one's own that is not one's own
6. The creation of unfair advantage
7. The facilitation of dishonesty
8. Tampering with or falsifying records
9. Cheating on examinations through the use of written materials or giving or receiving help in any form during the exam, including talking, signals, electronic devices, etc.

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 and reported to the Provost's office.

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.
- If you have not used Moodle before, a tutorial can be found at: <http://fcpe.adelphi.edu/moodle/student/>
- If class is cancelled due to an emergency closing of the University, you are required to log on to the class Moodle page for instructions and assignments.

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 and I encourage you to respond. 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.

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 announcement on Moodle or the classroom door, then you should wait in the classroom until 4:35pm, as I am probably just running late.***

Textbook

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

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 textbook is an essential component of this course. I do not expect you to always understand everything in the reading assignments. However, I do 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, you are supposed to read them *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.

Grading

The final numerical course grade is the total of the following:

$$\text{Assignments} \quad 40\% \quad \left[\frac{\text{points earned (including extra credit)}}{\text{points assigned (excluding extra credit)}} \times 40 \right]$$

$$\text{Quizzes} \quad 30\% \quad \left[\frac{\text{average of all quiz grades (as a percent)}}{100} \times 30 \right]$$

$$\text{Final Exam} \quad 30\% \quad \left[\frac{\text{final exam grade (as a percent)}}{100} \times 30 \right]$$

The final course grade corresponding to each final numerical course grade will be no lower than:

A+ = 97 & up A = 93-96.9 A- = 90-92.9 B+ = 87-89.9 B = 83-86.9 B- = 80-82.9
C+ = 77-79.9 C = 73-76.9 C- = 70-72.9 D+ = 67-69.9 D = 63-66.9 D- = 60-62.9 F = 0-59.9

Assignments

I expect for you to study and understand the material before completing the assignments in this course. Therefore, the assignments will be graded for accuracy, not effort.

In Class: During some class meetings, timed lab assignments will be given during class time. I will only give limited assistance in class during these assignments, since I expect you to ask all your questions about the material in a lesson either before or during the lecture covering that material.

Homework: Homework will be assigned each week and due on the Monday of the week after it is assigned, unless announced otherwise, either on paper in class or through the Moodle Learning System (see above) by 11:55pm. Late assignments will not be accepted, except in extreme circumstances (like serious illness or a family emergency) when I am notified before the due date.

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 contact 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 contact me by Saturday. You cannot expect to be successful on the assignments if you first start them on the last day or two before their due date.

I encourage you to ask me questions about homework exercises, by email or during office hours. However, I will not show you the solution to any homework exercise, prior to your final submission of that assignment. With that said, I will be glad to show you the solution to any exercise that is not an assigned homework exercise, either during office hours or by e-mail.

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

Pair Programming: For some assignments, you will have the option of working alone 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. A few weeks into the semester, you will be given a paper to read that discusses Pair Programming in more detail.

Academic Honesty: 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, see above). Copying any part of another person’s solution (even if you modify the code) is considered an academic honesty violation. ***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.***

Submitting Assignments: The first line of every programming assignment *must* contain a comment indicating the name(s) of the student(s) working on it and which assignment it is. If this is not done, the assignment will get a zero grade.

Most assignments will specify a filename to be used. If you submit your homework with a different filename, there will be a penalty of up to 10% of the assignment grade. When the filename says [LastName], replace that with your own last name, not in brackets. For example, if the assignments says to use the filename “hw0[LastName]Int.rkt”, I would save the file as “hw0WittensteinInt.rkt”.

Quizzes

There will be approximately 5-6 quizzes during the semester and the dates will be announced at least one week in advance. Each quiz will have a time limit, usually between 15 and 30 minutes. All quizzes will be on paper (with computers turned off) and you cannot use any materials, other than pens/pencils and calculators. Also, for most quizzes, I will attach a reference sheet containing any rules or functions you will need. The questions on each quiz will be based only on the recent material. However, since most chapters require understanding previous chapters, you will need to know previous material in order to be successful on the quizzes.

Final Exam

Like the quizzes, the Final Exam will be on paper and you can only use pens/pencils, calculators, and the reference sheet that I will prepare and attach to the exam. The Final Exam will emphasize the material later in the course, but may have questions based solely on earlier material. While it is recommended to study the quizzes and their solutions as part of your preparation for the Final Exam, you will also need to study other materials. The Final Exam will not just be the same or similar questions to those on the quizzes.

Tentative Schedule of Topics

Ch.0–3: Introduction and Drawing Pictures

Ch.4&5: Writing your own image functions

Ch.7&9: Working with numbers & strings

Chap.11: Multi-function programs

Chap.13: Booleans: true or false

Chap.15: Conditionals

Ch.20&21: Structures

Ch.22&23: Lists and Recursion

*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 SPRING 2014 CSC 160-01

Signature: _____ Printed Name: _____ Date: _____