

Syllabus of CS 2060: Programming with C

Spring 2014, Credit Hours: 3, CS Department/College of EAS

Time & Loc.: T/Th 12:15 pm – 1:30 pm, Engineering 107

Instructor: John Tesch

Office: 245 Engineering Building, 255-3493 (office), Email: jtesch@uccs.edu

Office Hours: T/Th 1:30 – 2:00 pm, 245 EAS, and/or by appointment (email preferred)

Course Description:

CS 2060 gives an introduction to programming in C. Students will learn to develop computer programs for problem solving, develop proficiency for programming in the C programming language and its application to problem solving. The course will also introduce basic concepts of computer systems and programming environments.

The specific course outcomes that the Computer Science Department has identified for this course are provided at the end of the syllabus. Most of them won't mean anything at this point, but by the end of the course you should be able to achieve all of the listed outcomes.

Course Format

Lecture, assignments and examinations

Text: Deitel & Deitel, C: How to Program, 6th Edition, Pearson Education,
ISBN-10: 0136123562, ISBN-13: 9780136123569. **(Not the 7th edition)**

Schedule

Week - Date	Topic	Readings	Lab/ Assignments
1 – 1/20	Introduction to Computers Introduction to C	Chapter 1 Chapter 2	Quiz 1 (Due 1/28) HW1 (Due 2/2)
2 – 1/27	Structured Programming Control Flow I/O Redirection	Chapter 3 Chapter 4 Chapter 14.2	Quiz 2 (Due 2/2)
3 – 2/03	Functions Arrays	Chapter 5 Chapter 6	Quiz 3 (Due 3/6) HW2 (Due 2/18)
4 – 2/10	Arrays Lab		

5 – 2/17	Pointers	Chapter 7	Quiz 4 (Due 3/6) HW3 (Due 3/6)
6 – 2/24	Reference Pointers Arrays Lab		
7 – 3/03	Strings Structured I/O	Chapter 8 Chapter 9	Quiz 5 (Due 3/11) HW4 (Due 4/1)
8 – 3/10	Structures	Chapter 10	Quiz 6 (Due 3/18)
9 – 3/17	Mid-term Review MID-TERM		
10 – 3/24	Spring Break		
11 – 3/31	File IO	Chapter 11	Quiz 7 (Due 4/8)
12 – 4/07	Data Structures Lab		HW5 (Due 4/22)
13 – 4/14	Data Structures Variable Length Arguments	Chapter 12	Quiz 8 (Due 4/22) HW6 (Due 4/29)
14 – 4/21	Variable Length Arguments		
15 – 4/28	Preprocessor	Chapter 13	Quiz 9 (Due 5/6)
16 – 5/05	Final Exam Review	Chapter 14	Quiz 10 (Due 5/10)
17 – Finals Week	Final Examination		

Prerequisites

- CS1150 or equivalent
- If you want to take the class without the prerequisite, you need to get approval from the Instructor.

Grading

Learning Activity	Points
Quizzes (10)	100
Homework (6)	600
Midterm Examination	100
Final Examination	100
Participation	100
TOTAL	1000

Grading Policy

Letter Grade	Percentage
A+	97 – 100
A	94 - 96
A-	90 - 93
B+	87– 89
B	84 – 86
B-	80 - 83
C+	77– 79
C	74 – 76
C-	70 - 73

D+	67– 69
D	64 – 66
D-	60 - 63
F	0 – 59

Requirements

Students are required to attend all lectures and labs. Students arriving late for class will have $\frac{1}{2}$ of the attendance points for that day deducted. Homework/reading/project/lab assignments are important parts of the course and are to be completed individually. There will be six homework assignments, ten quizzes and two examinations. Homework and quizzes are due at the beginning of class each Tuesday. Late homework and quiz submissions lose 25% of their value if turned in within 24 hours of the due date. Submissions after 24 hours of the due date are not accepted. Under extreme non-academic circumstances, such as illness, late work will be accepted. In such cases, you will have to inform the instructor by email/phone right away and provide sufficient and convincing proof of the reason for the time extension, i.e. documents from doctors. FOR FAIRNESS, THERE WILL BE NO MAKE-UP EXAMS. Exceptions are the same as those for late homework and labs

Homework assignment policy

Each student must accomplish the assigned homework problems individually. While you may discuss the concepts and algorithms before developing the program solutions, the solutions and the code, which you hand in, must be written by yourself. **You may not work together on the actual coding of the assignments.** The turning in of duplicate (or near duplicate) code will be seen as cheating and will result in a zero grade for all students involved.

Homework assignment submission requirement

Each homework assignment will be a complete program written in C using either Linux (gcc) or Windows with MinGW. Each homework assignment should be turned in at the beginning of class on the due date. All homework will be submitted electronically via blackboard. To complete the homework, SOURCE, README TEST, and EXECUTABLE files MUST be present. The homework will be contained in a zip or tar.gz file with the following requirements:

1. The filename shall be in the format: CS2060Homework#StudentName.zip (or tar.gz)
2. The zip shall contain all source code necessary to compile the program and run it.
3. Student created source shall include:
 - a. A source header

- i. Filename
 - ii. Student Name
 - iii. Date
 - iv. Purpose
 - v. How to use
 - b. Function headers
 - i. Function name
 - ii. Prototype with arg types
 - iii. How to use
 - iv. What it does
 - c. Any comments or formatting to make the code more readable
 - d. Any CITATIONS needed for referenced code
4. The output executable shall be named hw#StudentName (.exe for windows)
 5. All files should unzip into a NEW folder named hw#StudentName
 6. A README file shall be included, which shall include:
 - a. The student's full name
 - b. The name of the program
 - c. The purpose of the program
 - d. How to manually compile the program
 - e. A section on problems encountered and how they were overcome
 - f. A section on the testing procedures for the program (be sure to include bounds)
 - g. A section on how you would make the assignment better

The following rubric will be used to grade all assignments that are original, reflect a genuine effort to complete the assignment and are submitted within the allotted time. The program as a whole must be original work by the student and referenced code shall be clearly marked. Libraries can be used as appropriate, so long as the library itself is only supplemental to the assignment.

Program Grading Rubric

Submission - Does the file name conform? Does the subject conform?	5
Archive file - Does the archive create a folder? Is the folder named correctly? Are files put in the right folder?	5
Documentation (Source) - Is the source header correct? Is each function (including main) documented?	10
Source evaluation - Is the code readable? Are comments helpful? Is the code structured correctly? Are methods to complete the assignment objectives clear? Is code segmented with functions as appropriate?	20
Documentation (README) - Are all sections present? Is the information helpful and complete?	10

Compilation Automatic - Does the program compile with a make or shell script? If not, the instructor will attempt to compile via the instructions in the README. If that fails, a grade of ZERO will be given for the ENTIRE ASSIGNMENT.	10
Execution (public test case) - Does the file execute (without crashing) and produce the correct output with supplied test case?	20
Execution (private test case) - Does the file execute (without crashing) and produce the correct output with instructor test case?	20

Disability

If you have a disability for which you are requesting an accommodation, you are encouraged to contact the Disability Services Office, located in Main Hall #105 (Phone # 255-3354), within the first week of classes.

Cheating

Cheating will not be tolerated. Cooperation is not the same as cheating. It is okay to discuss and analyze concepts before you start to do homework or project assignments. Copying other people's code or solutions is strictly prohibited.