
CSCE 150A – INTRODUCTION TO PROBLEM SOLVING WITH COMPUTERS

Spring 2009

If you really want to understand something, the best way is to try and explain it to someone else. That forces you to sort it out in your own mind... that's really the essence of programming. By the time you've sorted out a complicated idea into little steps that even a stupid machine can deal with, you've certainly learned something about it yourself.

–Douglas Adams

1 Course Info

Time & Venue	Tuesdays & Thursdays 2:00 – 3:15PM Avery 20
Prerequisites	4 years high school mathematics; keyboarding
Course Web Page	http://www.cse.unl.edu/~cbourke/cse150a
Textbook	<i>Problem Solving and Program Design in C</i> Jeri R. Hanly & Elliot B. Koffman, Addison Wesley, 5th Edition
Instructor	Chris Bourke cbourke@cse.unl.edu 123E Avery Hall
TA (labs)	Derrick Stolee dstolee@cse.unl.edu Office & Hours: see webpage
TA (grading)	Lin Liu linliu@cse.unl.edu Office & Hours: see webpage
TA (grading)	Xin Dong xdong@cse.unl.edu Office & Hours: see webpage

1.1 Course Description

CSCE 105 is intended to develop skills in programming and problem solving to prepare for CSCE 155. Problem solving with a computer and programming fundamentals using a popular high-level language; mathematics topics. Logic and functions that apply to computer science; elementary programming constructs, type, and algorithmic techniques.

2 Tentative Schedule

Table 1 contains a list of topics I intend to cover along with the relevant sections of the text. This schedule is *tentative* and may be changed or topics added/removed as time dictates. Furthermore, though we will follow the book, additional material may be introduced (with sufficient resources) while the depth of each topic may vary.

Basic C Program Components	Chapter 2
Formatting Output, Type casting	Chapter 3
Functions	Chapter 3
Control Structures	Chapter 4
Loops	Chapter 5
Arrays	Chapter 8, Sections 14.1-14.2
Strings	Chapter 9, Section 13.7
File Processing	Chapter 12
Structures	Chapter 11
Linking, Header Files, makefiles, system calls	Sections 13.1-13.3
Recursion	Chapter 10
Data Structures	Chapter 14
Intro To C++	Chapter 16

Table 1: List of Topics

Moreover, a detailed schedule can be found on the course webpage, including (tentative) dates for exams, quizzes and homework due dates. Note that a quiz will be given and a homework will be due during the 15th week. In accordance with UNL's 15th week policy (see http://www.unl.edu/regrec/grades/final_main.shtml), you have been notified of this.

3 Lab

There is a lab associated with this course run by Derrick Stolee. The material covered in lab will closely follow the topics covered in lecture. The grading and policies for the lab are set by the Lab Instructor, but the lab grade is a component for the course. See the syllabus for the lab for further details.

4 Grading

4.1 Homework

Grading will be based on weekly homework assignments that will include both written answers and programming. You are encouraged to typeset your homework and to use courier font for code portions. There will be about 6 homework assignments *including* one due during the 15th week.

4.1.1 Late Policy

Each homework will be due on a Thursday at the beginning of class. Note that programming portions will be handed in using CSE's webhandin (<http://cse.unl.edu/~handin/>). The webhandin uses the CSE server's clock so handing in assignments after 2:00PM according to CSE's clock will be marked as late, so don't wait to the last few minutes to hand things in. You are allowed to handin *one* late homework assignment without penalty at the beginning of class on the following Thursday. No assignment will be accepted over a week after it is due. Once you have used your one allowed late assignment, no other assignments will be accepted if they are late.

4.2 Quizzes

There will be a total of about 5 short quizzes given at the end of certain classes. The quizzes will cover recent topics. No makeup quizzes will be given without prior approval.

4.3 Exams

There will be two exams given in class as well as a comprehensive final exam given during Finals week. No makeup exams will be given without prior approval.

4.4 Grading Policy

If you have questions about grading or believe that points were deducted unfairly, you must first address the one who graded it to see if it can be resolved. Such questions should be made within a reasonable amount of time after the graded assignment has been returned. No further consideration will be given to any assignment a week after a it has been graded and returned to you. It is important to emphasize that the goal of grading is consistency. A grade on any given assignment, even if it is low for the entire class, should not matter that much. Rather, students who do comparable work should receive comparable grades (see Section 4.5).

4.5 Weight & Scale

Grades will be calculated according to the weighting scheme in Table 2

Homework	40%
Quizzes	10%
Lab	25%
Midterm	10%
Final	15%

Table 2: Grade Weight

Letter grades will be awarded based on the scale in Table 3. This scale may be adjusted upward if the instructor deems it necessary based on the final grades only. No scale will be made for individual assignments.

A+	≥ 97	B+	≥ 87	C+	≥ 77	D+	≥ 67	F	< 60
A	≥ 93	B	≥ 83	C	≥ 73	D	≥ 63		
A-	≥ 90	B-	≥ 80	C-	≥ 70	D-	≥ 60		

Table 3: Grade Scale

4.6 Academic Integrity

All homework assignments, programs, quizzes, exams, etc. must be your own work. No *direct* collaboration with fellow students, past or current, is allowed unless otherwise stated. The [Computer Science & Engineering](#) department has an Academic Integrity Policy. All students enrolled in any computer science course are bound by this policy. You are expected to read, understand, and follow this policy. Violations will be dealt with on a case by case basis and may result in a failing assignment or a failing grade for the course itself. The most recent version of the Academic Integrity Policy can be found at http://www.cse.unl.edu/undergrads/academic_integrity.php. In addition, we may use MOSS (Measure Of Software Similarity) (see <http://theory.stanford.edu/~aiken/moss/>) to detect plagiarism of software programs.

5 Communication

The best way to communicate with your instructor is through email. Communication will be sent to the class via the course through blackboard.

Another valuable communication tool is the course web page. Announcements and resources will periodically be made available. There is an anonymous suggestion box that you may use to voice your concerns about any problems in the course if you do not wish to be identified.

Finally, I will hold regular office hours (to be announced) and will make myself available by appointment; please email me to set one up. You may also find the Student Resource Center useful; for hours and service, see the SRC's webpage: <http://cse.unl.edu/src/index.shtml>