Syllabus
CSci101L Spring 2006
Fundamentals of Computer Programming, 3 Units

Section #	Lecture #	Time	Location
Section 1	29901 R	2:00-03:15 p.m. MW	ZHS159
Section 2	29900 R	12:30-01:45 p.m. TTh	SLH 102

Instructor: Massoud Ghyam
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Web Site: www-scf.usc.edu/~csci101
Blackboard: totale.usc.edu
Office Hours: Monday, Wednesday 12:45 to 1:45 pm.
Tuesday, Thursday 2 pm – 3 pm
or By Appointment

Required Text: Computer Science, A Structured Programming Approach Using C
Author: Behrouz A. Forouzan / Richard F. Gilberg
Publisher: Brooks/Cole Thomas learning

CSCI101L is a requirement for the following Engineering majors:

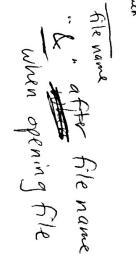|	
CECS	Computer Engineering and Computer Science
CSci	Computer Science
BME	Biomedical Engineering
ISE	Industrial and System Engineering
CHE	Chemical Engineering
ENVE	Environmental Engineering
EE	Electrical Engineering

You must be registered in one of the following lab sections:

Lab Section	Time	Day	Location
29902D	08:00-09:50	T	SAL126
29903R	08:00-09:50	W	SAL126
29904R	10:00-11:50	Th	SAL127
29905R	12:00-01:50pm	W	SAL126
29907R	02:00-03:50pm	F	SAL126
29906R	03:30-05:20pm	Th	SAL126

(handwritten notes in margins)

in lab
> SCF –SSH to aludra.usc.edu
> enter username & pw.
> click yes
> black/green screen pops up

emacs test
ls = list files
cat test.c → prints
rm → remove

cd = change directory

save, then
gcc
file name
use
: & after file name
when opening file

mv ⇒ move ⇒ rename file

cp test.c copytest.c
make copy
file#1 to file#2

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All cell phones and pagers must be turned off during the lecture and lab.

Week	Subject	Reading Assignment *
1, 2	Introduction to Computers and Design of Programs Using Algorithm Introduction to UNIX System and EMACS Designing Solutions to Computer Solvable Problems Program Development Phases: Analysis of the Problem, Design of Solution, Conversion of the Solution to Computer Program Debugging, and Executing. Data Types: Integer, Real, Character Introduction to a Simple 'C' Program, Simple Input/Output: scanf, printf	Read Ch. 1, 2
3, 4	Using Functions to Design for Large Programs, Issues Related to the Design of Programs Using Functions Functions in C: System/predefined, User defined, Passing Addresses, Expression evaluation, Macros with Parameters	Read Ch. 2, 3, 4
5, 6	Designing Solution with Conditions Conditional Statements in 'C': If Statements, Switch Statement, Conditional operator, Introduction to Debugging Techniques and Software	Read Ch. 5

Test 1=> Exact date and location will be announced later

Week	Subject	Reading Assignment *
7	Designing Solutions Using Loops Iterative Statements in 'C': While, Do-While, For	Read Ch. 6
8,9	Design Process for large amount of Data, Issues to Consider, Text Files	Read Ch. 7

Test 2=> Exact date and location will be announced later

Week	Subject	Reading Assignment *
10, 11	Arrays in 'C': One dimension, and Multidimensional Designing Solution Using Memory Addresses, Pointers in 'C' Design Issues in Dealing with pointers	Read Ch. 8 Read Ch. 9
11, 12	More on Arrays, Strings	Read Ch. 10
12, 13	Designing Data Holders: Records Introduction to Structure is in 'C', Array of Structures	Read Ch. 11, 12

Test 3=> Exact date and location will be announced later

Week	Subject	Reading Assignment *
14	Binary Files	Read Ch. 13
15	Review for Final	

* All readings are from: Computer Science, A Structured Programming Approach Using C
** Location and exact dates for the exams will be posted on the class web site and Blackboard.

Exam Schedule:
Location and exact dates for the exams will be posted on the class web site and Blackboard. Make up for exams and quizzes are not allowed, if you have a problem contact the instructor in advance for special arrangements.

Final Exam:

Section 1 (2:00-03:15 MW)   :   Monday, May 8 -> 2-4 p.m.
Section 2 (12:00 - 1:45 T Th)   :   Wednesday, May 10 -> 2-4 p.m.

Details and Location will be posted on the class web site and Blackboard.

Assignments and Assessments:

The course grade will be based on the proportion of total possible points earned on exams, homework, quizzes, and programming assignments.

Form of Evaluation	Proportion
8 Short Programs	16%
2 Programming projects	14%
3 Midterm exams	40%
Final Exam	15%
Lab Activities	8%
Pop quizzes	7%

At the end of the semester, you will have a score out of 100 percent. This score will be used in a class curve to arrive at a letter grade. I guarantee that >= 90 will be some kind of A(A- or A), >= 80 will at least be some kind of B (B-,B,B+), >= 70 will at least be some kind of C (C-,C,C+), and that >=60 will be at least some kind of D (D-,D, D+).

Academic dishonesty includes (but not limited to) the following:
1. Giving or receiving information during an exam.
2. Unauthorized or malicious use of computing facilities.
3. Deception or misrepresentation in a student's dealing with the instructor, teaching assistant, or grader.
4. Inappropriate collaboration on or coping of homework assignments. Students are encouraged to discuss the readings with one another, even when the discussion relates to assignments. As log as the purpose of discussion is to help the student's understanding of the material, and not to reduce or share the work, such discussion will not be deemed inappropriate.
5. Plagiarism, the submission of material authored by another person but represented as the students own work. It does not matter whether the original work author gave permission.
6. Any violation of academic integrity standards described in the student conduct code. Students are expected to be familiar with these standards.

The instructor, teaching assistant, and grader will make every attempt to detect cases of academic dishonesty.

Topics in the Lab

Lab consists of 2 hours:
The teaching assistant will go over the programming assignment and will do some exercises from the book and reviews lecture materials in the lab. You will do some short exercises in the lab or take a pop quiz in the lab or during the lecture, and I use them to assign the 8% lab activities credit.

All programming assignments are handed out in the lab. All completed assignments must be submitted electronically. Late programs will NOT be accepted, turn in what you have for partial credit. Your TA will explain the procedure to you in the first lab meeting.

Programming Assignments

You will be required to develop solutions to the problems assigned then, write and debug the "C" code for it. Problems will be mostly engineering related. Material discussed in the lecture will be used to develop the programs.

Approximate topic for the program	Handed out	Due
Program 1: Design with sequential statements and simple input and output.	Week 2	11:59 pm
Program 2: Design with simple user defined functions.	Week 3	11:59 pm
Program 3: Design with conditional statement.	Week 4	11:59 pm
Program 4: Design with input/output from text files.	Week 5	11:59 pm
Program 5: Design with looping problems using files.	Week 6	11:59 pm
Program 6: Design with one-dimension arrays.	Week 7	11:59 pm
Program 7: Design with multidimensional arrays.	Week 8	11:59 pm
Program 8: Design with functions using arrays and returning multiple values.	Week 9	11:59 pm
Major project #1: Design using arrays with many functions and more complexity.	Week 10	11:59 pm
Major project #2: Using array of structures, sorting, searching, and tabulating results.	Week 12	11:59 pm

All programs must be submitted electronically by midnight of the due date, NO OTHER FORM OF SUBMISSION IS ACCEPTABLE. Late assignments are not accepted and NO extension or exception is made; please make sure to plan your work accordingly. Start your work as soon as possible to avoid losing programming points.