

CSE 5A Syllabus

Introduction to Programming I (C)

Fall 2018

Course Description:

Introduction to algorithms and top-down problem solving. Introduction to the C language, including functions, arrays, and standard libraries. Basic skills for using a PC graphical user interface operating system environment. File maintenance utilities are covered.

Prerequisites:

A familiarity with high-school level algebra is expected, but this course assumes no prior programming knowledge.

Learning Outcomes:

Introduces students to modern structured programming techniques using the C programming language. Students will gain some idea of the sorts of tasks for which the computer is highly suited, and which sorts of tasks it is not. The course also presents the basic skills for using a PC operating system with graphical user interface. File maintenance utilities are also covered.

Lectures:

Monday, Wednesday, Friday: 9:00 – 9:50am Peterson Hall 104

Discussion Sections:

Monday: 2:00 – 2:50pm, 3:00 – 3:50pm, or 4:00 – 4:50pm EBU3B 2154

Home Base Lab:

EBU3B B270 -- basement of Computer Science & Engineering (CSE) building

Instructor:

Greg Miranda – EBU3B **3128** (Computer Science & Engineering building)
Office Hours: Monday/Wednesday/Friday 10 – 11am in my office or by appt
g2miranda@ucsd.edu

Web Page:

<http://www.GregMiranda.com/cse5a/>

TAs/Tutors:

Teaching Assistant: Chengchen Zhang - chz025@eng.ucsd.edu
See the Lab Hours schedule for a list of all the Tutors.

Textbook:

- Stephen Kochan, *Programming in C*, 4th Edition, Addison-Wesley Professional, 2014.

References:

- Samuel Harbison & Guy Steele, *C: A Reference Manual*, 5th Edition, Prentice Hall, 2002.
- Brian Kernighan & Dennis Ritchie, *The C Programming Language*, 2nd Edition, Prentice Hall, 1988.

Grading:

5 Quizzes	10%
Programming HWs	40%
1 Midterm	20%
1 Final	30%

A- / A / A+	90.00-92.99% / 93.00-99.99% / 100+%
B- / B / B+	80.00-82.99% / 83.00-86.99% / 87.00-89.99%
C- / C / C+	70.00-72.99% / 73.00-76.99% / 77.00-79.99%
D	60.00-69.99%
F	< 60%

You must earn at least 50% of the total possible points on the Programming Assignments to receive a grade of C- or better.

Policies:

- 1) Lecture attendance is REQUIRED. Student is responsible for all lecture material.
- 2) No electronics during lecture.
- 3) NO makeup examinations.
- 4) CLOSED BOOK examinations will be completed individually.
 - Midterm, a single sided 8½" x 11" handwritten paper is allowed.
 - Final, a double sided 8½" x 11" handwritten paper is allowed.
- 5) Programming Assignments will be completed individually by writing own code and by typing in own code with NO assistance.
- 6) LATE programming assignments get ZERO credit.
- 7) All regrade requests are directed ONLY to Greg Miranda within 7 days of graded exam/assignment return.
- 8) Copied work – see University catalog on academic dishonesty.
- 9) UCSD Policy on Integrity of Scholarship states:
"...all academic work will be done by the student to whom it is assigned without unauthorized aid of any kind."
<http://academicintegrity.ucsd.edu>

Schedule (may change slightly):

- 0) Some Fundamentals [Ch. 1]
Compiling and Running Your First Program [Ch. 2]
- 1) Variables, Data Types, and Arithmetic Expressions [Ch. 3]
Program Looping [Ch.4]
- 2) Making Decisions [Ch. 5]
- 3) Making Decisions [Ch. 5]
Working with Functions [Ch. 7]

- 4) Working with Functions [Ch. 7]
Common Programming Mistakes [Appendix D]
- 5) Pointers [Ch. 10]
- 6) Working with Arrays [Ch. 6]
Midterm
- 7) Working with Arrays [Ch. 6]
Character Strings [Ch. 9]
- 8) Character Strings [Ch. 9]
Working with Structures [Ch. 8]
- 9) Working with Structures [Ch. 8]
Input and Output Operations in C [Ch. 15]
- 10) Working with Larger Programs [Ch. 14]
Miscellaneous and Advanced Features [Ch. 16]

Getting Help

The IDEA Engineering Student Center, located just off the lobby of Jacobs Hall, is a hub for student engagement, academic enrichment, personal/professional development, leadership, community involvement, and a respectful learning environment for all. The Center offers a variety of programs, listed in the IDEA Center Facebook page at <http://www.facebook.com/ucsdidea/> (you are welcome to Like this page!) and the Center web site at <http://idea.ucsd.edu/>. The IDEA Center programs support both undergraduate students and graduate students.

Diversity and Inclusion

We are committed to fostering a learning environment for this course that supports a diversity of thoughts, perspectives and experiences, and respects your identities (including race, ethnicity, heritage, gender, sex, class, sexuality, religion, ability, age, educational background, etc.). Our goal is to create a diverse and inclusive learning environment where all students feel comfortable and can thrive.

Our instructional staff will make a concerted effort to be welcoming and inclusive to the wide diversity of students in this course. If there is a way we can make you feel more included please let one of the course staff know, either in person, via email/discussion board, or even in a note under the door. Our learning about diverse perspectives and identities is an ongoing process, and we welcome your perspectives and input.

We also expect that you, as a student in this course, will honor and respect your classmates, abiding by the UCSD Principles of Community (<https://ucsd.edu/about/principles.html>). Please understand that others' backgrounds, perspectives and experiences may be different than your own, and help us to build an environment where everyone is respected and feels comfortable.

If you experience any sort of harassment or discrimination, please contact the instructor as soon as possible. If you prefer to speak with someone outside of the course, please contact the Office of Prevention of Harassment and Discrimination: <https://ophd.ucsd.edu/>.

Students with Disabilities

We aim to create an environment in which all students can succeed in this course. If you have a disability, please contact the Office for Students with Disability (OSD), which is located in University Center 202 behind Center Hall, to discuss appropriate accommodations right away. We will work to provide you with the accommodations you need, but you must first provide a current Authorization for Accommodation (AFA) letter issued by the OSD. You are required to present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison in the department in advance so that accommodations may be arranged.

Basic Needs/Food Insecurities

If you are experiencing any basic needs insecurities (food, housing, financial resources), there are resources available on campus to help, including The Hub and the Triton Food Pantry. Please visit <http://thehub.ucsd.edu/> for more information.