

San José State University
Computer Science Department
CS 49C: Programming in C, Section 01,
Spring 2019

Course and Contact Information

Course Number: 21871
Course Dates: January 24, 2019 to May 13, 2019
Class Days: Mondays & Wednesdays
Class Time: 9:00 - 10:15 am
Classroom: MacQuarrie Hall (MH) 225
Instructor: **Dr. Faramarz Mortezaie**
Email: faramarz.mortezaie@sjsu.edu
Office Hours: T TH 7:30 - 8:00 am Engineering Building classroom 337
Office Phone: 408-924-5097 (email is the preferred method to contact the instructor)
Prerequisites: Previous programming experience and completion of math GE.

Course Description

Beginning course in the C language. Prerequisite: Previous programming experience and completion of math GE.

Course Format:

CS 49C is a hands-on programming course. Most of the lectures will follow programming exercises and an in-class programming assignment. Class time will be spent either in lecture mode or combination lecture-lab mode. There is a significant hands-on component in this class and student participation during class is key to successful completion of the course. A typical class will begin with a lecture (Lecture Mode) followed by a hands-on (Lab Mode). Students are required to bring your wireless laptop to each class and complete the hands-on exercises and assignment(s) which will submit in Canvas. Student laptops must remain closed during lecture.

Course materials such as syllabus, handouts, notes, assignment instructions, reading assignments, etc. are posted on [Canvas Learning Management System course login website](http://sjsu.instructure.com) at <http://sjsu.instructure.com>. Students are responsible for regularly checking with the messaging system through [MySJSU](http://my.sjsu.edu) at <http://my.sjsu.edu> to learn of any updates. Students need an active SJSU email in order to access Canvas.

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

1. CLO 1 Have a basic knowledge of C programming language.
2. CLO 2 Understand the concepts of functions, procedures and macros.
3. CLO 3 Understand the concept of pointers.
4. CLO 4 Write programs using MH, arrays and structures.
5. CLO 5 Read and access sequential and random access files.
6. CLO 6 Write recursive programs in C
7. CLO 7 Write programs for different data structures in C

Textbook:

Textbook: Title: C How to Program, 8th edition Author: Deitel and Deitel Publisher: Pearson
ISBN: 13-978-0-397689-2 More info:

<http://www.pearsonhighered.com/deitel>

Other Readings: Additional course readings, code examples, exercises, etc. will be assigned and will be provided by the instructor.

Other technology requirements /material : Wireless Laptop, Visual Studio IDE

Grading Information:

Grade Scale: A+ (98 – 100), A (93 – 97), A- (90 – 92), B+ (87 – 89), B (83 – 86), B- (80 – 82), C+ (77 – 79), C (73 – 76), C- (70 – 72), D+ (67 – 69), D (63 – 66), D- (60 – 62), F (0-59)

Final grade is calculated based on the percentage of the total points for all the Course Requirement and Assignments listed below:

1. Homework and Class Assignments	20%
2. Exam-1	20%
3. Exam-2	20%
4. Project	10%
5. Final Exam (Cumulative)	30%

Course Requirements and Assignments:

Course requirements, reading materials, hands-on coding activities, and assignments contribute to and are aligned with course learning outcomes. Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to labs, reading, and assignments. Final grade is calculated based on the percentage of the total points for all the Course Requirement and Assignments listed below:

1. In-class Programming Assignments (Labs) : There will be a number of hands-on exercises. The purpose of the hands-on exercises is to develop your understanding of the material and your skills in problem-solving and in programming. Occasionally, you will be asked to come to the front of the class to go through your solutions (programs) and share/explain your code with the rest of the class. Students are required to submit completed hands-on exercises to Canvas at the end of each class for grading.

2. Homework Assignments : Assignments that reinforce lecture and programming skills will be assigned. The purpose of the assignments is to develop your understanding of the material and your skills in problem solving and in programming. Assignments are submitted via Canvas for grading. Students must submit only their own work. Students are responsible for knowing/understanding the content of assignment they submit and may be asked to demonstrate their work to the class. Assignment due dates are posted on Canvas. All Assignment (in class and homework) are posted and submitted on Canvas by the posted due date.

No late or e-mailed assignments will be accepted. No Extra Credit assignments will be given in lieu of homework or labs.

3, 4, 5: Exam-1, Exam-2 and Final: The final and exams have fixed dates and can only be taken in the classroom during class time. . Makeup exams will only be given in cases of illness (with signed documentation from a medical facility – original copy). Exams are closed book, closed notes, closed neighbor and comprehensive. The final exam is cumulative.

6. Term-Project :

There will be a programming group project. Each group consists of two or three students. Information on the project, including topics and deadlines, will be given later in the course. Each group gives a 20-minute, in-class presentation including code and algorithm review.

Classroom Protocol:

A typical class will begin with a lecture followed by a hands-on lab. **During lecture**, students are expected to listen, follow the lecture, and take notes and not use the computer or any electronic devices or talk to your neighbor. **During hands on work**, students are expected to use their wireless laptop computers to complete the hands-on exercises and class assignment during class.

There may be collaboration for some of the class assignments, but each students collaborating is expected to understand and contribute to the solution.

Attendance is not optional and is an essential part of the learning process. Students are expected to arrive to class on time and turn off their cell phones during the class. Students are expected to follow the code of conduct for the class and the university including Be respectful and do not disturb classmates and the instructor while class is in session. Please do not use cell phones, messaging apps, headphones, music players or any other devices other than you laptops during class time. Laptops should only be used for course-related purposes during lab. No photography or audio or video recording of any part of this class permitted without express written permission from the instructor. See University policies for more detail on student code of conduct on SJSU.edu

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/> Make sure to review these policies and resources.

Tentative Course Schedule: CS 49C-01: Programming in C, Spring 2019

This schedule is subject to change with fair notice. Updates available on the Canvas course page.

Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	1/28/2019	Introduction to computers Complete Homework-1 Read Chapter-1 and Canvas Lecture notes
1	1/30/2019	Introduction to C programming Complete Homework-2 Read Chapter-2 and Canvas Lecture notes .
2	2/04/2019	Introduction to C programming Homework-1 Due at 11:59PM .
2	2/06/2019	Introduction to C programming Homework-1 Due at 11:59PM .

Week	Date	Topics, Readings, Assignments, Deadlines
3	2/11/2019	Structured Programming in C, Homework-4. Read Chapters 3 and 4 and Canvas Lecture
3	2/13/2019	Homework-2 Due at 11:59PM
4	2/18/2019	Structured Programming in C, Homework-4. Read Chapters 3 and 4 and Canvas Lecture
4	2/20/2019	C programming Control, Homework-3 Due at 11:59PM
5	2/25/2019	C Programming Control, Homework-5 Read Chapters-4 and 5 and Canvas Lecture
5	2/27/2019	C Functions, Homework-4 Due at 11:59PM
6	3/04/2019	Review Chapters 1 to 5
6	3/06/2019	Exam-1 Chapters 1 to 5
7	3/11/2019	C Functions, Homework-6 Read Chapter-5 and Canvas Lecture
7	3/13/2019	Arrays Chapter-6, Homework-5 Due at 11:59PM
8	3/25/1019	Arrays Chapter-6, Homework-7, Read Chapter-6 and Canvas Lecture
8	3/27/2019	Arrays Chapter-6 , Homework-6 Due at 11:59PM
9	4/01/2019	Spring Recess - No classes
9	4/03/2019	Spring Recess - No classes
10	4/08/2019	Pointers Chapter-7, Homework-9, Read Chapter-7 and Canvas Lecture
10	4/10/2019	Pointers Chapter-7, Homework-8 Due at 11:59PM
11	4/15/2019	Review Chapters 5 to 7
11	4/17/2019	Exam-2 Chapters 5 to 7
12	4/22/2019	Strings Chapter-8, Homework-10 Read Chapter-8 and 10 and Canvas Lecture
12	4/24/2019	Structures Chapter-10 , Homework-9 Due at 11:59PM
13	4/29/2019	Structures Chapter-10, Homework-10 Due at 11:59PM
13	5/01/2019	Files Chapter-11, Homework-12 Read Chapter-11 and Canvas Lecture
14	5/06/2019	Dynamic Memory allocation Chapter-12, Read Chapter-12 sec. 1, 2 and Canvas Lecture
14	5/08/2019	Dynamic Memory allocation Chapter-12, Homework-12 Due at 11:59PM
15	5/13/2019	Term/Final Project Presentations
15	5/16/2019	Final Exam (Thursday) 7:15 - 9:30 AM