

San José State University
Computer Science Department
CS 49C: Programming in C, Section 01,
Spring 2020

Course and Contact Information:

Course Dates:	January 23, 2020 to May 11, 2020
Class Days:	Tuesdays and Thursdays
Class Time:	1:30 pm – 2:45 pm
Classroom:	MacQuarrie Hall (MH) 222
Instructor:	Neeraj Chavan
Email:	neerajpadmakar.chavan@sjsu.edu
Office Hours:	Tu Th 3 pm - 4 pm
Office Location:	Duncan Hall 282
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 the 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 be submitted on Canvas. Student laptops must remain closed during the 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 for updates on canvas. 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:

- CLO 1 Have a basic knowledge of C programming language.
- CLO 2 Understand the concepts of functions, procedures and macros.
- CLO 3 Understand the concept of pointers.

CLO 4 Write programs using MH, arrays and structures.
CLO 5 Read and access sequential and random-access files.
CLO 6 Write recursive programs in C
CLO 7 Write programs for different data structures in C

Textbook:

Title: C How to Program, 8th edition

Author: Deitel and Deitel Publisher: Pearson ISBN: 13-978-0-397689-2

Available on SJSU library website for online access

Other Readings:

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

Other technology requirements /material: Wireless Laptop (Should be brought for all classes)

Grading Information:

Nominal Grading 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:

Homework Assignments	30%
Quizzes and in-class labs	10%
Midterm-1	15%
Midterm-2	15%
Project	10%
Final Exam (Cumulative)	20%

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. More details about student workload can be found in [University Policy S12-3](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>. The final grade is calculated based on the percentage of the total points for all the Course Requirement and Assignments listed below:

1. 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 programming. Assignments are submitted via Canvas for grading. Students must submit only their own work. Students are responsible for knowing/understanding the content of the assignment they

submit and may be asked to demonstrate their work to the class. Assignment due dates will be posted on Canvas for each homework. All assignments (in class and homework) should be submitted on Canvas by the posted due date. There will be **5 significant homework assignments** for this course.

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

2. In-class Programming Assignments (Labs) and Quizzes: 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.

Labs are graded complete/incomplete. As long as you attempt and submit the lab, you will get full credit. For labs, you may work with others if you wish. Be forewarned, exam questions are often similar to lab questions. If you do not understand your lab solution, you are not likely to succeed on the exams.

3. Midterm-1, Midterm-2: The midterm dates are mentioned in the tentative course schedule 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.** Midterm-1 will have syllabus covered up to that date and Midterm-2 will have syllabus covered after Midterm-1.

4. Final exam: The final has **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.**

5. 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 is expected to give a presentation in the class including code and algorithm review.

Classroom Protocol:

A typical class will begin with a lecture followed by a hands-on lab. **During the 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 assignments during class.

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, to 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 your 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

NOTE that [University policy F69-24](http://www.sjsu.edu/senate/docs/F69-24.pdf) at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states that "Students should attend all meetings of their classes, not only because they are responsible for material discussed

therein, but because active participation is frequently essential to ensure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading."

Drop Deadlines:

The last day to drop the class without a W grade is Tuesday, Feb 4. The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>.

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.**

Students not following the academic integrity policy will be reported to the CS department and university.

CS 49C Programming in C, Spring 2020, Tentative Course Schedule:

This schedule is subject to change with fair notice.

Week	Date	Topics, Readings, Assignments, Deadlines
1	January 23	Course introduction
2	January 28	Introduction to C programming
2	January 30	Introduction to C programming
3	February 4	Structured Programming in C
3	February 6	C programming Control
4	February 11	C programming Control
4	February 13	C Functions
5	February 18	C Functions
5	February 20	Review session
6	February 25	Midterm-1 (tentative date)
6	February 27	Arrays in C
7	March 3	Arrays in C
7	March 5	Pointers in C
8	March 10	Pointers in C
8	March 12	Pointers in C
9	March 17	Strings in C
9	March 19	Strings in C
10	March 24	Review session

10	March 26	Midterm-2 (tentative date)
11	March 31	*** Spring Break ***
11	April 2	*** Spring Break ***
12	April 7	Structures
12	April 9	Bit manipulation
13	April 14	Files
13	April 16	Dynamic memory allocation
14	April 21	Dynamic memory allocation
14	April 23	TBD
15	April 28	TBD
15	April 30	Project presentations
16	May 5	Project presentations
16	May 7	Final Review
Final Exam	May 19	MacQuarrie Hall 222, 12:15 pm – 2:30 pm