Course Syllabus

Along with technical questions in the homework, we will also discuss ethical issues related to operating systems. We want you to understand that along with technical choices come moral implications, and we want to be able to identify and reason about them. There will be 2 written (1 page) assignments to discuss contemporary ethical issues in operating systems today.

We will be using iClicker to make sure everyone is up to speed. To encourage participation 1% of your final grade will come from your participation. At the end of the semester you will receive 100% if you get at least 70% of participation. Anything under 70% will be prorated.

I do not grade on a curve. The exams and projects measure what you are expected to have learned. There aren't many opportunities for extra credit, but there are bonus questions on exams.

We will be doing individual programming assignments. You will have one week after a programming assignment is assigned to complete it. I will allow assignments to be submitted up to two days late with a 10 point penalty. You may not submit assignments that are over 2 days late. Individual programming assignments are not group projects. If students get help on assignments, even to resolve a stupid problem, it must be documented in the code with the name of the person rendering the help and a brief description of the help provided. Extensive help on a project will result in a reduced grade. Failure to document help, or any other forms of cheating will result in a failing grade on the assignment at a minimum and may result in failure of the course. All incidents will be reported to the Office of Student Conduct & Ethical Development. Even in open source, you cannot copy code from one open source project to another without attribution. Sharing solutions with other students, even if it is indirectly through public source repositories, falls under "aiding and abetting".

The University Policy S16-9, Course Syllabi (http://www.sjsu.edu/senate/docs/S16-9.pdf) requires the following language to be included in the syllabus:

“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 internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus

Final Examination or Evaluation

All exams, including the final, will use respondus monitor and require a webcam and environment checks.

This course will have a cumulative final exam given during exam week.

Grade	Percentage
C minus	70 to 72%
D plus	66 to 69%
D	63 to 65%
D minus	60 to 62%

Classroom Protocol

This is your class. Please ask questions. Please come prepared. Do not engage in activity that may distract other students.

I do not take attendance except for the first two classes. Students not attending either of the first two classes will be dropped to make room for students on the waiting list. Attempting to get marked as present (by have someone else attend in your place or using technological deceptions) will be considered academic dishonesty and at a minimum will result in you getting dropped from the course.

YOU WILL BE REQUIRED TO HAVE YOU WEBCAM TURNED ON DURING LECTURES OVER ZOOM. The instructor needs non-verbal feedback during lecture to make sure student understand. Experience has indicated that requiring webcams on is the best way to do this.

University Policies

Per University Policy S16-9 (http://www.sjsu.edu/senate/docs/S16-9.pdf) (http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on Syllabus Information web page (http://www.sjsu.edu/gup/syllabusinfo/) (http://www.sjsu.edu/gup/syllabusinfo), which is hosted by the Office of Undergraduate Education. Make sure to visit this page to review and be aware of these university policies and resources.

CS 47, Introduction to Computer Systems, 01, Spring, 2021, Course Schedule

This syllabus may change to accommodate class passing or unforeseen events. Changes will be posted on canvas as soon as they happen.

Course Schedule

Dates	Week	Topics
1/27	1	Programming in assembly
2/1, 2/3	2	Computer Abstract (Chapter 2) (programming assigment 1 due)
2/8, 2/10	3	ASCII and Unicode (3.1) number systems (3.5 & 3.6)
2/15, 2/17	4	unsigned and signed binary numbers (3.2 & 3.3) & endianness (3.4) (programming assignment 2 due)
2/22, 2/24	5	Exam 1, Representing floating point (3.7)
3/1, 3/3	6	Floating point arithmetic (3.8) Arrays (3.9)
3/8, 3/10	7	(programming assignment 3 due) Memory (4.1) Memory hierarchy (4.2)
3/15, 3/17	8	RAM and ROM (4.3 & 4.4) subroutines (chapter 5)
3/22, 3/24	9	subroutines (chapter 5) linking and loading (programming assignment 4 due)
3/29, 3/31		Spring break

Dates	**Week**	**Topics**
4/5, 4/8	**10**	**the CPU (chapter 6) (programming assignment 5 due)**
4/12, 4/15	**11**	**the CPU (chapter 6) continued**
4/19, 4/22	**12**	**exam 2, gates (7.2) and combinational logic (7.3)**
4/26, 4/29	**13**	**constructing ALU (7.4) and faster addition (7.5) (programming assignment 6 due)**
5/3, 5/5	**14**	**clocks (7.6) and memory elements (7.6)**
5/10, 5/12	**15**	**memory (8.2) and caching (8.3 & 8.4)**
5/17	**16**	**Masking with bits (chapter 9)**
5/19 @12:15	**Final Exam**	