

Advanced Computer Architecture CS 247

Fall 2026 Section 01 In Person 3 Unit(s) 08/19/2026 to 12/07/2026 Modified 09/04/2026

Contact Information

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Office hours - Monday 6 pm to 7 pm at [https://sjsu.zoom.us/j/81362836527?](https://sjsu.zoom.us/j/81362836527?pwd=Y01Yc3FPY1YxV0dKOHpJSnFoV29jUT09)
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Course Description and Requisites

Advanced topics in vector architectures, including: pipelined architectures, dataflow computers, VLSI architectures, butterfly connections; bus and memory architectures; cache structures; hardware implementations of algorithms.

Prerequisite(s): CS 147, CS 149, and Graduate standing. Allowed Declared Major: Computer Science, Bioinformatics, Data Science. Or instructor consent.

Grading: Letter Graded

* Classroom Protocols

You are welcome to ask questions while the lecture is in progress, just raise your hand.

Discussions, in general, are allowed and encouraged, but not while the lecture is in progress.

You are expected to participate in the lecture.

Disturbing/ distracting the lecture or other students in any way while the lecture is in progress is disallowed. You may quietly leave the class for a break and quietly re-enter without asking permission and/ or disturbing the lecture/ class.

Sharing solutions, answers or code is strictly forbidden and will be handled as per the university policy without exceptions.

Report and Project will be graded similar to CS 297/298 rules, i.e. the nominal grade is 90%. Put another way, if you do all as told, i.e. pretty much what the entire class does, that warrants 90% grade. For >90%, you must do stuff that positively distinguishes you from the rest of the class.

Program Information

Diversity Statement - At SJSU, it is important to create a safe learning environment where we can explore, learn, and grow together. We strive to build a diverse, equitable, inclusive culture that values, encourages, and supports students from all backgrounds and experiences.

Course Materials

Computer Architecture - A Quantitative Approach, 5th ed.

by John Hennessey and David Patterson

ebook available from SJSU Library [here \(https://csu-sjsu.primo.exlibrisgroup.com/discovery/fulldisplay?docid=alma991011337379702919&context=L&vid=01CALS_SJO:01CALS_SJO&lang=en&search_scope=MyInst_and_CI&adaptor=Local%20Search%20Engine&tab=Everything&query=any,contains,computer%20architecture%20quantitative&offset=0\)](https://csu-sjsu.primo.exlibrisgroup.com/discovery/fulldisplay?docid=alma991011337379702919&context=L&vid=01CALS_SJO:01CALS_SJO&lang=en&search_scope=MyInst_and_CI&adaptor=Local%20Search%20Engine&tab=Everything&query=any,contains,computer%20architecture%20quantitative&offset=0).

Course Requirements and Assignments

Discussions among yourselves on assignment problems are allowed but code sharing is not.

For programming assignments and project, reproducibility of results is paramount.

All submissions must be in CANVAS.

Late submissions without proof of an exception circumstance are not allowed.

Grading Information

Grade breakup -

Assignments	60%
Midterm (Project topic, plan and design)	15%
Final exam (Project demo)	25%

Criteria

Grading criterion (including the lower limit)

≥ 96	A+
93 - 96	A

90 - 93	A-
86 - 90	B+
83 - 86	B
80 - 83	B-
76 - 80	C+
73 - 76	C
70 - 73	C-
66 - 70	D+
63 - 66	D
60 - 63	D-
< 60	F

University Policies

Per [University Policy S16-9 \(PDF\)](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 the [Syllabus Information](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

Midterm (Project topic, plan and design submission)	Thursday, Oct 29	
Final (Presentation or Project demo)	Thu, December 10	7:45-9:45 PM