



Department of Computer Science

Fall 2015

CS 463 – Computer Architecture
Mon & Wed 11:30am – 12:45pm @ BEH 223

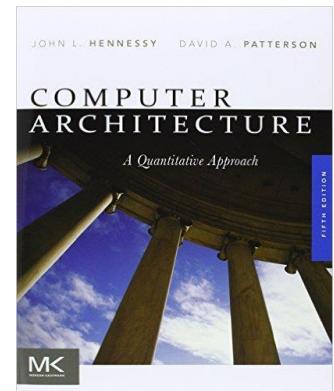
Instructor: Dr. Jisoo Yang
Phone: (702) 895-3918
Office: TBE-B372D
Email: jisoo.yang@unlv.edu
Office hour: Mon/Wed 9:00am – 11:00am
Class website: <http://webcampus.unlv.edu>

Textbook

“*Computer Architecture: A Quantitative Approach*”, by John Hennessy and David Patterson, Morgan Kaufmann, 5th Edition.

ISBN-13: 978-0123838728

ISBN-10: 012383872X



Prerequisites

- CS 370 – Operating Systems
- Waived to students who took CS219 with good standing

Course Topics

- Introduction to computer architecture. Topics include basic computer organization concepts; history and taxonomy of computer architectures; language and software influences on architecture; instruction set design; stack, array, data flow, and database machines; multiprocessor and network architectures; and fault tolerant designs.

Course Objectives

- Understand design tradeoffs between cost, performance, power and other field requirements.
- Understand microarchitecture concepts, learn their performance implications.
- Understand architectural support for virtualization, security, power-management, GPU, etc.
- Experience elements of RTL-level hardware design using HDL language and tool.
- Analyze features of modern architecture, tune software to particular platforms.

Assignment

- 4 assignments consisting of small development projects and problem solving.
- Should be submitted to WebCampus before the class begins on due date (i.e., deadline is 11:30am)
- Late penalty: you will get 60%, 40%, 30% of score till 24, 48, 72 hours past due. 0 after 72 hours.

Quiz

- 4 scheduled, in-class quizzes held at the end of the lecture (closed books and notes)
- Your lowest quiz score will be ignored.

Midterm exam

- Closed books and notes, no mobile device.
- Oct 14st, Wednesday, in class 11:30am – 12:45pm

Final exam

- Closed books and notes, no mobile device.
- Dec 9th, Wednesday, 10:10am – 12:10pm @ Classroom
- The Final will cover materials from the entire course, with emphasis on the second half.

Grading

- Midterm and final scores will be normalized to class's highest score.
- Your homework scores will be added and then normalized to class highest score.
- All quiz scores, except your lowest, and class participation will be added and then normalized.
- The normalized scores will be weighted using the table below to arrive the final letter grade.

Test	Weight
Midterm	15 %
Final	25 %
Assignment (Project)	50 %
Quiz / class participation	10 %

- The final letter grade will be curved, with midpoint roughly at B-.
- Instructor may adjust class-wide normalization factor when an anomaly is detected.

Class schedule

	Week of	Monday	Wednesday
1	Aug 24		(CS 219 Review by Prof. Kim)
2	Aug 31		Assignment #1 out
3	Sep 7	Labor Day Recess	Quiz #1
4	Sep 14		Assignment #1 due
5	Sep 21		Assignment #2 out
6	Sep 28		Quiz #2
7	Oct 5		Assignment #2 due
8	Oct 12		Midterm exam
9	Oct 19		Assignment #3 out
10	Oct 26		Quiz #3
11	Nov 2		Assignment #3 due
12	Nov 9	Assignment #4 out	Veterans Day Recess
13	Nov 16		Quiz #4
14	Nov 23		Assignment #4 due
15	Nov 30		
16	Dec 7	Final week – No Class	Final exam

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Academic Misconduct – Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: <http://studentconduct.unlv.edu/misconduct/policy.html>.

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Disability Resource Center (DRC) – The UNLV Disability Resource Center (SSC-A 143, <http://drc.unlv.edu/>, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you.

If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to me during office hours so that we may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach me before or after class to discuss your accommodation needs.

Religious Holidays Policy – Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the semester of his or her intention to participate in religious holidays that do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university that could not reasonably have been avoided. Any student who is denied a make-up option after appropriately notifying the instructor, shall have the right to appeal that decision through the normal appeal mechanism in place. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=13&navoid=1634>

Tutoring – The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex (SSC). Students may learn more about tutoring services by calling 702-895-3177 or visiting the tutoring web site at: <http://academicsuccess.unlv.edu/tutoring/>.

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Rebelmail – By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu.