Course Goals

To learn the cloud definition, service models (IaaS, PaaS, SaaS), and deployment models

To learn cloud enabling technologies: web, web service (SOAP, REST), virtualization, and data center

To learn cloud infrastructure mechanisms, specialized mechanisms, and management mechanisms

To learn fundamental cloud architectures, and advanced cloud architectures

To learn and practice cloud programming environments, including VMware ESXi, Google App Engine, Amazon AWS, Microsoft Azure, Hadoop MapReduce, and NoSQL

To learn concepts and theories from parallel and distributed systems

Time-permitted: to learn other advance topics in cloud computing

Course Learning Outcomes (CLO)

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

Understand the above covered topics through completion of homework, quizzes, and examinations.

Successfully complete labs and projects.

Work in a team to complete a term project, including independent research, oral presentation, and programming on one latest advancement in cloud computing.

Required Texts/Readings

Textbook

Project 2 (Term Project) 20%
    Implementation/testing   10%
    Report/demo/slides   10%
Midterm Exam   25%
Final Exam (comprehensive)   30%

Academic Integrity and Collaboration Policy

The work that you turn in must be original - Every single byte must come from you. You are not allowed to look at anyone else's solution in any form (from other students, web sites, etc.). You may discuss assignments with any one. But any such discussion is at the high level only, and you still must write your solution yourself.

You must take reasonable steps to protect your work. You must not share or publish your solutions to any one or at any web sites (github, stackoverflow, etc.), in this semester or any future semester. You are obligated to protect your files and printouts from access. Github repositories are public by default, do not put your code there unless you make the repository private.

Each assignment submission including programming code will be checked for similarity.

Any cheating incident will result in the reporting of such incident to the university office of Student Conduct & Ethical Development, will result in academic sanctions (including failing the course), as well as possible administrative sanctions, in accordance to the University Academic Integrity Policy at http://www.sjsu.edu/senate/docs/F15-7.pdf.

University Policies

Per University Policy S16-9 *(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), 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.

Week	Date	Topics	References	HW & Projects
9	3/23	**MIDTERM EXAM (close book, close notes). Bring student ID**	up to AWS, exclude papers	
9	3/25	LAB Google App Engine*	Notes	
10	3/30, 4/1	(no class - Spring Recess)		
11	4/6	LAB Google App Engine*	Notes	
11	4/8	Cloud Architecture 1	Erl 11	
12	4/13	Cloud	Erl 11	(Project presentation length & order)

12   4/15