Course and Contact Information

Instructor:	Dr. Kong Li
Office Location:	Online
Email:	kong.li@sjsu.edu (Email subject starts with CS218)
Office Hours:	Mon 3:00PM – 4:00PM or by appointment
Lecture Days/Time:	Mon & Wed 4:30PM – 5:45PM (1/27/2021 - 5/17/2021)
Classroom:	Online
Prerequisites:	CS 149 (with grade C- or higher) and Graduate standing. Allowed Declared Major: Computer Science, Bioinformatics, Data Science, or instructor consent. Students who do not provide documentation of having satisfied the class prerequisite requirements by the second class meeting will be dropped from the class.

Course Description

Topics in cloud computing, including distributed system models, virtual machines, virtualization, cloud platform architectures (IaaS, PaaS, SaaS), service-oriented architectures, cloud programming and software environments, peer-to-peer computing, ubiquitous cloud, cloud security and trust management. Prerequisite: CS 149 and Graduate standing. Allowed Declared Major: Computer Science, Bioinformatics, Data Science, or instructor consent

Catalog Course Description is available at
https://catalog.sjsu.edu/preview_course_nopop.php?catoid=2&coid=7034

Format

This course (lectures, exams, office hours, etc.) is completely online via Zoom, and is taught synchronously at the specified meeting pattern. You may participate asynchronously based on class recordings, except you must attend a few specific sessions synchronously at the specified datetime. See the schedule for details.

Faculty Web Page and Messaging

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on Canvas Leaning Management System course login website at https://sjsu.instructure.com. Each submission of any assignment (homework, report, etc.) is "self-contained" and should be made on Canvas. You are responsible for regularly (i.e. every couple of days) checking with the messaging system (email, announcements, discussions) through Canvas and through MySJSU on Spartan App Portal at https://one.sjsu.edu to learn of any updates. Students are encouraged to use the Canvas discussion boards for collaboration.

Canvas information at https://www.sjsu.edu/ecampus/teaching-tools/canvas/index.html
Canvas student resources at https://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources/
If you are having problems logging on, please submit a ticket at https://isupport.sjsu.edu
View instructor's comment at https://guides.instructure.com/m/4212/l/54359-how-do-i-view-instructor-comments, and view annotated comment at https://guides.instructure.com/m/4212/l/352349-how-do-i-view-annotation-feedback-comments-from-my-instructor-directly-in-my-assignment-submission

Course Goals

D. Sitaram and G. Manjunath, *Moving to The Cloud: Developing Apps in the New World of Cloud Computing*, Syngress, 2011. ISBN-13: 9781597497251 (paper), 9781597497268 (eBook).
https://www.elsevier.com/books/moving-to-the-cloud/sitaram/978-1-59749-725-1

B. Sosinsky, *Cloud Computing Bible*, Wiley, 2011. ISBN-13: 9780470903568 (paper), 9781118023990 (eBook).
https://www.wiley.com/en-us/Cloud+Computing+Bible-p-9780470903568

J. Rosenberg and A. Mateos, *The Cloud at Your Service*, Manning, 2010. ISBN-13: 9781935182528.
https://www.manning.com/books/the-cloud-at-your-service

Additional reading material will be distributed to the class as appropriate.

Course Requirements and Assignments

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 3 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.

Homework and Lab: Each homework/Lab is individual.

Students are responsible for ensuring that they have access to reliable Wi-Fi during tests. See Learn Anywhere website for current Wi-Fi options on campus.
We will use iClicker Cloud to take attendance and conduct polls in class. In order to participate in these activities, you must bring a device (laptop, tablet, or smart phone) to class. Follow the instructions to setup an iClicker account (or use your existing one if you already have one), and add this course to your account. You can use either the web browser or the iClicker Reef app for free. Visit iClicker at https://www.iclicker.com for more information.

Grading Information

Except the final course grade which is posted on MySJSU, all other grades (assignments, projects, quizzes,

The schedule is tentative and subject to change with fair notice. The final exam date is firm and cannot be changed. Any changes will be announced in due time in class and on the course's web site. The students are obliged to consult the most updated and detailed version of the reading material and syllabus, which will be posted on the course's web site.

Course Schedule

Week	Date	Topics	References	HW & Projects
1	1/27#	Course Logistics & projects		
2	2/1	Introduction	Erl 3, 4	1/31 Prerequisites due
2	2/3	Introduction (cont'd)	Erl 3, 4	2/2 Honesty pledge due Marinescu 7 & slides
3	2/8	Concepts: CAP, Paxos	Marinescu 3,4	2/8 Last day to drop classes
3	2/10	Concepts: CAP, Paxos (cont'd) Web Services	Marinescu 3,4 Notes, Erl 5.4, 5.6	(Team size)
4	2/15	Web Services (cont'd)	Notes, Erl 5.4, 5.6	2/15 Last day to add classes
4	2/17	Virtualization	Notes, Erl 5.3, Marinescu 10	2/16 Team Formation due
5	2/22	Virtualization (cont'd) LAB Docker Container*	Notes, Erl 5.3, Marinescu 10 Notes	
5	2/24	LAB Docker Container (cont'd)*	Notes	

Week	Date	Topics	References	HW & Projects