

Cloud Technologies

(Fall 2013)

Course number:	CMPE28 1
Instructor:	Mike Larkin
Class Time:	Wed 6:00 – 7:50 pm
Office Hours:	After each class meeting, or by appointment
Email:	mlarkin@azathoth.net
Class Yahoo Group:	sjsu-cmpe28 1-fall2013

Prerequisites and Corequisites

This class has a prerequisite of successfully completing CMPE272 (or instructor consent). It is your responsibility to ensure you have successfully met all course prerequisites.

Course Description

Cloud computing concepts, evolution, architectures, infrastructures, opportunities, risks, enterprise adoption strategies, standards and policies, Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), Infrastructure-as-a-Service (IaaS), modern cloud computing technologies and tools, case studies and team projects.

Course Objectives

The objective of this course is to teach you how cloud technologies work and will cover the entire technology stack of a cloud system, from the underlying virtualization core to higher level abstractions (PaaS, IaaS, etc). The course will also detail both Amazon and Microsoft-based cloud services/interfaces/APIs

The Lab

We will spend the first few weeks reviewing core concepts and fundamentals. After this “ramp-up”, there will be two lab projects subsequently assigned throughout the balance of the semester.

The class project will be assigned approximately halfway through the semester, and is typically due the last day of finals week. The topic for the class project will be proposed by each project team (not to exceed 5 persons per team), and approved by me ahead of time. The project will consist of a technical implementation, as well as a report and presentation to the rest of the class.

You may work on the labs at home/elsewhere at your leisure. Lab assignments are an individual effort and no collaboration is permitted (except on the class project, as mentioned earlier, or where I specifically say that collaboration is permitted).

Labs will be assigned through the class web site and supported online. You may contact me for questions regarding the lab assignments through email (listed above), or via any of the following IM contacts:

Skype	mlarkin_guest
Google Talk	mlarkin@gmail.com
Yahoo!	mlarkin2000
AOL	mlarkin2004
MSN	mlarkin99@hotmail.com
Twitter	@mlarkin2012

Important – Do not send emails to any of the addresses in the above table – these are not checked and are for instant messenger use only.

A Note Regarding Software – As part of this course will cover Microsoft-based clouds, you should arrange access to a Windows machine running Windows 8 or Windows Server 2012 R2. If you do not wish to reinstall your machine with one of the above Oses, you can create a virtual machine instead.

Required Text

There are no required texts. I will provide suggested/recommended reading as needed throughout the semester. Other reference material may be provided from time to time via the class Yahoo group.

Grading

Grade points are accumulated from several areas: Four pop quizzes (30 points total, low quiz score dropped, **no make-up quizzes**), lab assignments (40 points total), class project (40 points), and the final exam (40 points). Final course grades will be available on or after the dates listed in the SJSU course catalog for grade availability.

<u>Points</u>	<u>Grade</u>
150-139	A
138-135	A-
134-128	B+
127-120	B
119-113	B-
112-105	C+
104-100	C
0-99	You don't want to be here

Schedule

The following is an approximate course schedule.

Date	Topic	Lab Topic
08/21/13	Overview & Greensheet	
08/28/13	Virtualization technology review	
09/04/13	Virtualization technology review	
09/11/13	No Class	
09/18/13	IaaS overview	
09/25/13	PaaS overview	
10/02/13	Amazon Cloud Technologies	Lab 1 Assigned
10/09/13	Amazon Cloud Technologies	
10/16/13	Amazon Cloud Technologies	Class Project Assigned
10/23/13	Microsoft Cloud Technologies	Lab 2 Assigned
10/30/13	Microsoft Cloud Technologies	
11/06/13	Microsoft Cloud Technologies	
11/13/13	Higher-level abstractions / Cloud Apps	Lab 1 Due
11/20/13	Higher-level abstractions / Cloud Apps	
11/27/13	Thanksgiving Holiday – No Class	
12/04/13	Higher-level abstractions / Cloud Apps	Lab 2 Due
12/11/13	Final Exam 5:15PM- 7:30PM	Class Project due

Accommodation for Disabilities

If you need course adaptations or accommodations because of a disability, or if you have emergency medical information to share with me, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours.

Academic Dishonesty

Academic dishonesty in any form will not be tolerated. As a student at San Jose State University you are expected to pursue your course work with integrity and honesty. Incidents of academic dishonesty, which may include cheating and plagiarism, are taken very seriously and will be reported under the guidelines of the SJSU policy on academic dishonesty.

All students in this class are expected to adhere to the following honor code, as put forth by the MSE Program office:

“I have read the honor code below and agree with its provisions.
My continued enrollment in this course constitutes full acceptance of this code.”

I will not:

- Take an exam in place of someone else, or have someone else take an exam in my place
- Give information or receive information from another person during an exam
- Use more reference material during an exam than is allowed by the instructor
- Obtain a copy of an exam prior to the time it is given
- Alter an exam after it has been graded and return it to the instructor for regrading.
- Collaborate with other students on an assignment unless the assignment specifically permits collaboration

Please note that your submissions may be subject to random verification by automatic "collaboration detection" services. You are only permitted to collaborate with other students on assignments that specifically allow it. If you are caught collaborating with another student (or worse, copying or plagiarizing another student's work,) you will be immediately reported to the CMPE department office and may face disciplinary action.