Cmp Sci 4750/5750 – Cloud Computing
Department of Mathematics and Computer Science
Fall 2017

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http://www.cs.umsl.edu/~sanjiv/classes/cs5750

Office Hrs: M 2:00pm – 3:30pm
W 5:15pm – 6:45pm
Any other time by appointment

Prerequisites: Cmp Sci 2750


Course Description: This course provides an introduction to development and deployment of applications in the cloud space. It touches on different aspects of cloud computing such as IaaS, PaaS, and SaaS. It includes significant discussion on legal and security aspects of clouds in the marketplace. It may also include public, private, and hybrid clouds, and Internet of Things.

Topics: We’ll discuss the development and deployment of applications in the cloud space. We’ll look at different aspects of cloud computing such as IaaS, PaaS, and SaaS. We’ll also talk about the legal and security aspects of clouds in the marketplace. Different topics covered in the course are described below:

- Introduction
- Cloud models/architecture
- Choosing a cloud service model
- Auditing in the cloud
- Security design in the cloud
- Disaster recovery planning

Outcomes: At the end of this course, you are expected to understand different technical and legal aspects of working with the cloud. You should be able to create the architecture for an application to be deployed in the cloud.

Email requirements: All correspondence should be made through your UMSL-provided email. Please use the class email list on Canvas for communications. Any unsigned email and email not in plain text will go unanswered by me. Please do not send me any attachments without talking to me first.

Attendance: I’ll expect you to be present in most of the classes. I will not be taking attendance but if you start missing too many classes, please take responsibility for your absence, specially when it concerns tests and homeworks. When
you come to class, you must change your cell phones to silent mode. If your cell phone rings during the test, I’ll
deduct 10% points from that test score for you. If you are more than ten minutes late, please try to not disrupt the
class. I’ll penalize you by one letter grade for habitually coming late to class (more than five times I notice you
coming late).

**Projects/Homeworks** Projects and homeworks will be submitted electronically and will be due at 11:59pm on the
day noted on the assignment. Assignments should be submitted on delmar. You should start working on the
projects/assignments as soon as they are assigned as you may not be able to access the cloud at all times because
of physical distance and different domain. Do not hesitate to ask questions in class, in my office, or over email,
especially if you do not have an idea on how to start working on the project.

**Grading** The grade will be based on assignments and two tests. Each assignment must be meticulously documented
and clearly identify its purpose, author, and date. I will like to read your submitted code; I should not have to figure
it out. If you miss any test or assignment without making prior arrangements, you will have a zero. I will not give
any make up tests. The distribution of grades will be as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments and Projects</td>
<td>50% (40% for grad students)</td>
</tr>
<tr>
<td>Two Tests</td>
<td>25% each</td>
</tr>
</tbody>
</table>

For graduate students, 10% of their grade will be based on a class presentation on a topic they will have to research.
Make sure that the topic is approved by me.

Failure to hand in any assignment will result in an automatic zero for that assignment. If some student is unable to
hand in an assignment by the deadline, he/she must discuss it with me before the deadline. I’ll encourage you to talk
to other students regarding homework but you should not collaborate to the extent that two submissions are copies
of each other. If you are found copying an assignment (from another student or internet), or if your submission has
unreasonable similarity to another submission, you get a zero for that assignment automatically. A second offense
will be reported to the University officials and students involved will face serious consequences. I may ask you to
come to my office and explain your code to me; in case you are not able to explain the code to my satisfaction, I’ll
assign you a zero in that project.

**Miscellaneous** If you have any disability that requires an accommodation (as per UMSL policy), you must notify me
in advance. If you cannot attend the class due to a religious holiday or a university-sanctioned event, please let me
know in advance as well. In case you are down with the flu, please stay absent from the class till you recover, and
contact me via phone or email. I’ll try my best to make accommodation for you in that case.

You have an account on one of the Unix machines on campus (delmar) and you should use it for all assignments.
Any assignment that fails to run on delmar automatically gets a zero. The lecture notes and old tests are available
on the class web page in PDF format. You may want to print the lecture notes before you come to class.

**Exam Dates**

<table>
<thead>
<tr>
<th>Test</th>
<th>Date</th>
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<tbody>
<tr>
<td>1</td>
<td>October 11, 2017</td>
</tr>
<tr>
<td>2</td>
<td>December 06, 2017</td>
</tr>
</tbody>
</table>

There is no final exam. In case of class cancellation due to weather-related or other campus emergency on the day
of a test, the test will be held in the following class period. For the second test, if the campus is closed on December
06, the alternative date will be the day after the scheduled date; possibly in the conference room of the department.

**Other important dates**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>August 27, 2017</td>
<td>Last day to enroll in the course</td>
</tr>
<tr>
<td>September 18, 2017</td>
<td>Last day to drop without receiving a grade</td>
</tr>
<tr>
<td>November 13, 2017</td>
<td>Last day to drop the course with instructor approval</td>
</tr>
</tbody>
</table>
Anyone desiring an EXC grade after October 31, 2017 must be passing the course at that point to get EXC.

**UMSL Course Policies**

1. Participation (expectations)
   - It is vitally important that our classroom environment promote the respectful exchange of ideas. This entails being sensitive to the views and beliefs expressed during discussions whether in class or online. Please speak with me before recording any class activity. It is a violation of University of Missouri policy to distribute such recordings without my authorization and the permission of others who are recorded.
   - Turn off sound on beepers, cell phones, and other devices during class. Adherence to the Student Conduct Code is expected.
   - I am committed to insuring a positive learning environment by respecting that University policy (p. 66): http://www.umsl.edu/~studentplanner/index.html.
   - Your success in this course will heavily depend on your ability to communicate, engage and participate in all course activities. Successful completion of this course requires that a student keep up with all assignments, quizzes, projects and tests.
   - If you are unable to participate in the scheduled class activities, you must notify the instructor within the week of that class module. An unexcused failure to engage or participate with the class will be counted as an absence; unexcused absences may result in failure. The instructor reserves the right to make judgment to accept and/or makeup assignments missed because of failed participation in the course activities.

2. Academic Integrity/Plagiarism
   - Students are responsible for being attentive to and observant of campus policies about academic honesty as stated in the University’s Student Conduct Code (p. 60): http://www.umsl.edu/~studentplanner/index.html
   - To avoid accusations of academic dishonesty, please submit all written work to the Turnitin system before finalizing what you submit for evaluation. Check information about The Writing Center @UMSL that is linked to MyGateway Home.
   - Plagiarism is the use of another persons words or ideas without crediting that person. Plagiarism and cheating will not be tolerated and may lead to failure on an assignment, in the class, and dismissal from the University. View this campus policy here: http://www.umsl.edu/services/academic/policy/academic-dishonesty.html

3. Mandatory Reporting: Under Title IX, all UMSL faculty, staff, and administrators (with limited exception) are obligated to report any incidents of sexual harassment, sexual misconduct, sexual assault, or gender discrimination to the Student Affairs office and/or other University officials. This ensures that all parties are protected from further abuses and that victim(s) are supported by trained counselors and professionals. Note: There are several offices at UMSL (e.g., Counseling Services, Health Services, Community Psychological Service, Center for Trauma Recovery, and Student Social Services) whose staff are exempt from Title IX mandated reporting, when the information is learned in the course of a confidential communication.

4. Access, Disability and Communication
   - Students who have a health condition or disability, which may require accommodations in order to participate effectively in this course, should contact the Disability Access Services Office. Information about your disability is confidential.
Student Support and Services

• Technical Support
  – My Gateway (Blackboard): If you have problems logging into your online course, or an issue within the course site, please contact the Technology Support Center:
    ∗ Phone: (314) 516-6034
    ∗ Email: helpdesk@umsl.edu
    ∗ Website: http://www.umsl.edu/technology/tsc/
  – Wimba: If you have any questions regarding Wimba Classroom and Wimba Voice Tools, contact the Faculty Resource Center:
    ∗ Phone: (314) 516-6704
    ∗ Email: frc@umsl.edu
    ∗ Website: http://www.umsl.edu/technology/frc/
    ∗ Outside normal office hours, you may also contact Wimba for 24/7 assistance:
      ∗ Phone: (866) 350-4978
      ∗ Email: technicaIsupport@wimba.com

• Academic Support
  – The Online Writing Lab: At our My Gateway site, students can send their papers to our tutors, who will read them and send them back with suggestions. Students can also access SafeAssign, which identifies quoted material in their essays.
    ∗ Visit the online Writing Lab page on MyGateway to submit drafts online.
    ∗ We try to respond within 48 hours, but it may take longer, so allow ample time.
  – NetTutor: Online tutoring in many subjects is now available through NetTutor®. In your courses on MyGateway, click on Tools and select NetTutor® to log in.

• Student Services
  – The Student Retention Services office offers assistance tailored to specific student needs.
    ∗ 225 Millennium Student Center
    ∗ Phone: (314) 516-5300
    ∗ Email: umslsrs@umsl.edu
    ∗ Website: http://www.umsl.edu/services/srs/
• Departmental Tutoring
  – The department offers tutoring for up to Cmp Sci 3130, and occasionally for other courses
  – Check MyGateway organization CSTutoring.