



KENNESAW  
STATE UNIVERSITY  
College of Computing and  
Software Engineering  
Department of Computer Science  
**CS 4524 - Cloud Computing**

**SYLLABUS**

**FACULTY AND COURSE INFORMATION**

**Dr. Yong Shi**

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**Class Location and Meeting Times: M/W 5:00PM-6:15PM**

**Course Communication and Office Hours- M/W 6:15-7:15 PM**

**Electronic Communications -**

In D2L, send emails to yshi5@kennesaw.view.usg.edu (**students must use their D2L email accounts to send to this address**)

**Course materials will be available on D2L as semester goes on.**

**Reference books. (Not required):**

**Cloud Computing Explained: Implementation Handbook for Enterprises, Recursive Press, ISBN 0956355609, 2009**

**COURSE DESCRIPTION, CREDIT HOURS, AND PREREQUISITES**

**CS 4524 – Cloud Computing**

**3 Class Hours 0 Laboratory Hours 3 Credit Hours**

***Prerequisite: CS 3304, CS 3502***

In this course we will discuss fundamental concepts and techniques of cloud computing. Topics include cloud computing architecture, Infrastructure as a Service (IaaS), Platform-as-a-Service (PaaS), Software as a Service (SaaS), Virtualization, and Application Development on Cloud.

Students are required to create accounts for AWS, Google App Engine, etc. Some of them may require your credit/debit card information. However, you will not be charged as long as you only use their free tier services.

At the end of the semester, students will be required to give presentation and/or write research report for assigned research papers.

**COURSE LEARNING OUTCOMES**

Students will be able to:

1. Explain fundamental concepts and architecture of Cloud Computing
2. Explain the concepts of IaaS, PaaS, SaaS
3. Explain virtualization
4. Explain distributed computing environment on cloud
5. Develop applications on cloud

## TEACHING PHILOSOPHY AND INSTRUCTION METHODS

We will mainly use D2L and additional webpages for this course.

## COURSE CONTENT AND REQUIREMENTS/GRADING SCALE

Course Schedule (Tentative, subject to change):

Week		Topic
1	8/19	Syllabus and introduction of Cloud Computing
2	8/26	Cloud and Cloud Architecture
3	9/2	<b>Labor Day</b> , Cloud and Cloud Architecture, CloudSim introduction
4	9/9	<b>Test 1 Tentative</b> , Cloud and Cloud Architecture, CloudSim
5	9/16	CloudSim Network Topology
6	9/23	CloudSim Network Topology
7	9/30	CloudSim Network Topology, Infrastructure as a Service (IaaS), EC2
8	10/7	EC2
9	10/14	<b>Test 2 Tentative</b> , EC2
10	10/21	CloudSim Task Scheduling, Platform-as-a-Service (PaaS)
11	10/28	Platform-as-a-Service (PaaS)
12	11/4	Platform-as-a-Service (PaaS), Hadoop, Mapreduce
13	11/11	Hadoop, Mapreduce
14	11/18	<b>Test 3 Tentative</b> , Software as a Service (SaaS)
15	11/25	<b>Fall break</b>
16	12/2	Student reports
17	12/9	Student reports
18		Final exams week

### Grading Scale and Course Policies

#### Grading Scale:

Successfully completed programs must satisfy their requirements outlined in the programming assignments. The

assignment grade depends on the quality of the program. All assignments are individual work. You are encouraged to discuss assignments with other students as long as the following rules are followed:

1. You may provide assistance on how to use any of the software used by this course.
2. You view another student's code only for the purpose of offering debugging assistance. Students can only give advice on what to look for, but they cannot debug your code for you. All changes to your code must be made by you.
3. Your discussion is subject to the empty hands policy, which means that you leave the discussion without any record (electronic or physical) of the discussion.
4. Submissions that show identical code or slightly modified code will be considered plagiarism and are a violation of the Student Code of Conduct. For all homework assignments, if a student consults any resource (other than the text and class notes) including another individual, this consultation must be documented on the submission. This documentation must include what (or who) was consulted and what information was obtained. *Copying or paraphrasing code from another source or failure to provide this documentation will be considered a violation of the Student Code of Conduct.*

Due dates for homework assignments will be specified on the assignments themselves. *Late assignments will be accepted up to 24 hours after the due date for 50% credit. Assignments submitted more than 24 hours late will **not be accepted** for credit.*

Attendance and Quizzes	5%	A	90 - 100
Assignments, projects, presentations, reports/final test	50%	B	80 - 89
Test I	15%	C	70 - 79
Test II	15%	D	60 - 69
Test III	15%	F	59 or below

### Course Policies:

#### **Feedback in a Timely Manner:**

Typical response time practiced by CS faculty is 48 hours for email responses.

#### **Attendance Policy:**

Class attendance and good note taking are essential tactics for success.

**Quiz/Exam Policy:** There will be 3 midterm examinations and a final examination. The content will come from the text and other material presented in lecture sessions. Therefore, class attendance and good note taking are essential tactics for success.

#### **Make-up Policy:**

There will be **no make-up examinations**. It is the student's responsibility to arrange for an excused absence before the exam. A grade of zero will be assigned for all exams missed without an excused absence. If an emergency arises on the day of a midterm, and the instructor deems that the absence is excused, the weight of the final exam may be increased to replace the midterm.

Due dates for homework assignments will be specified on the assignments themselves. *Late assignments will be accepted up to 24 hours after the due date for 50% credit. Assignments submitted more than 24 hours late will **not be accepted** for credit.*

**Course Technology:** We will mainly use D2L and additional webpages and tools for this course.

**Electronic Devices and Classroom Behavior Policy:** In order to minimize the level of distraction, all beepers and cellular phones must be on quiet mode during class meeting times. Students who wish to use a computer/PDA for note taking need prior approval of the instructor since key clicks and other noises can distract other students. Recording of lectures by any method requires prior approval of the instructor. Students using a laptop in class should not check their email, browse the web, or in other way detract from the focus of the class.

Students are reminded to conduct themselves in accordance with the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Every KSU student is responsible for upholding the provision. Students who are in violation of KSU policy will be asked to leave the classroom and may be subject to disciplinary action by the University.

## **COURSE WITHDRAWAL**

Students may withdraw from one or more courses up to one week prior to the last day of class. To completely or partially withdraw from classes at KSU, a student must withdraw online at [www.kennesaw.edu](http://www.kennesaw.edu), under Owl Express, Registration and Student Records. Students who officially withdraw from courses before mid-semester will receive a "W" in those courses and receive no credit. They will not, however, suffer any academic penalty. Students who officially withdraw after mid-semester one week prior to the last day of class will receive a "WF," which will be counted as an "F" in the calculation of their grade point average. Exact withdrawal dates will be published in the official academic calendar and are subject to approval by the Board of Regents.

The only exceptions to these withdrawal regulations will be for instances involving unusual circumstances that are fully documented.

Students will receive refunds only when they withdraw from all their classes and only by the schedule outlined in the University System refund policy.

The last day to **withdraw** without academic penalty is **October 9**.

## **ACADEMIC INTEGRITY**

Every KSU student is responsible for upholding all provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. The Code of Conduct includes the following:

- Section II of the Student Code of Conduct addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program, which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement.
- Students involved in off-campus activities shall not act in a disorderly or disruptive fashion, nor shall they conduct any dangerous activity.
- Students involved in off-campus activities shall not take, damage or destroy or attempt to take, damage or destroy property of another.

## **ADDITIONAL STUDENT RESOURCES**

For CCSE Student resources:

<http://ccse.kennesaw.edu/student-resources.php>

KSU Service Desk:

The KSU Service Desk is your portal to getting assistance or access to University IT Services. Students call: 470-578-3555 or email [studenthelpdesk@kennesaw.edu](mailto:studenthelpdesk@kennesaw.edu)

For Academic Advising information and to schedule appointments:

<http://ccse.kennesaw.edu/advising/index.php>

Links to frequently used and helpful services:

<http://www.kennesaw.edu/myksu/>

# Acknowledgement and Acceptance of Academic Honest Statement

CS 4524

Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section II of the Student Code of Conduct addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program, which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement.

Students are encouraged to study together and to work together on class assignments and lab exercises; however, the provisions of the STUDENT CONDUCT REGULATIONS, II. Academic Honesty, KSC Undergraduate Catalog will be strictly enforced in this class.

Frequently students will be provided with "take-home" exams or exercises. It is the student's responsibility to ensure they fully understand to what extent they may collaborate or discuss content with other students. No exam work may be performed with the assistance of others or outside material unless specifically instructed as permissible. If an exam or assignment is designated "no outside assistance" this includes, but is not limited to, peers, books, publications, the Internet and the WWW. If a student is instructed to provide citations for sources, proper use of citation support is expected. Additional information can be found at the following locations.

<http://www.apa.org/journals/we/bref.html>

<http://www.lib.duke.edu/libguide/citing.htm>

<http://bailiwick.lib.uiowa.edu/journalism/cite.html>

<http://www.cas.usf.edu/english/walker/papers/copyright/ipdummie.html>

<http://www.indiana.edu/~wts/wts/plagiarism.html>

<http://plagiarism.phys.virginia.edu/links.html>

<http://www.arts.ubc.ca/doi/plagiarism.htm>

<http://alexia.lis.uiuc.edu/%7ejanicke/plagiary.htm>

<http://webster.commnet.edu/mla/plagiarism.htm>

<http://www.virtualsalt.com/antiplag.htm>

[http://www.engr.washington.edu/~tc231/course\\_info/plagiarism.html](http://www.engr.washington.edu/~tc231/course_info/plagiarism.html)

<http://quarles.unbc.edu/lsc/rpplagia.html>

CS 4524 Cloud Computing \_\_\_\_\_

Course Name

Dr. Yong Shi

Instructor Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Student ID Number

Signature

Date