CS 4322/01 - Mobile Software Development
Fall 2019

SYLLABUS

FACULTY AND COURSE INFORMATION

Selena He
Associate Professor
Phone: 470-578-6039
Email: she4@kennesaw.view.usg.edu (D2L email system)
Home page: http://ksuweb.kennesaw.edu/~she4/2019Fall/cs4322
Office: J-338
Office Hours: T, R 1:00 p.m. – 3:00 p.m. and by appointment

Class Location and Meeting Times: 3:30pm – 4:45pm, T, R, J-152

Required Texts or Technology Resources

Optional:
* Android for Programmers: An App-Driven Approach* (Deitel Developer Series) by Paul J. Deitel, Harvey M. Deitel, Abbey Deitel and Michael Morgano.


COURSE DESCRIPTION, CREDIT HOURS, AND PREREQUISITES

CS 4322 – Mobile Software Development
3 Class Hours 0 Laboratory Hours 3 Credit Hours
Prerequisite: CS 1302, CS 4305
Coverage of software development for the Android Mobile Application Platform. Topics include UI Design for Mobile Apps, Resource Management for Mobile Apps, and Deployment of Mobile Apps.

COURSE LEARNING OUTCOMES

Students will be able to:

1. Use Android Development Environment
2. Design a user interface for a mobile device
3. Use Android Development Libraries to develop mobile apps
4. Test mobile apps

TEACHING PHILOSOPHY AND INSTRUCTION METHODS
I like the fun saying about education: “Education is what is left when one forgot all he or she has learned”. It is true that education is the process of shaping the way of thinking. My teaching philosophy is simply “teaching is always not enough”. During the teaching, I feel that, in this exploding information age, there are just too many things there and it is impossible to include all of them in my class. Balancing the teaching materials is an art. My idea is not to over stuff the students but to teach them to learn how, where and what to learn. Teaching is to build the “fishing skill” of the students rather than simply feeding the students with the “fish”.

**COURSE CONTENT AND REQUIREMENTS/GRADING SCALE**

Course Topics and Outline

1. Introduction to Android
2. Welcome App
3. Android UI
4. Activity
5. Intent
6. Service
7. Broadcast
8. Content Provider
9. Security Basics

Final Exam: 12/12/2019 3:30pm – 5:30pm

<table>
<thead>
<tr>
<th>Week/Date</th>
<th>Topic</th>
<th>Chapters</th>
<th>Lab Assignment</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>First day of class</td>
<td>1-5</td>
<td>Lab 1</td>
<td></td>
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<tr>
<td></td>
<td>Introduction</td>
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<td>Data driven apps</td>
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<td>2</td>
<td>Data driven apps</td>
<td>6-7</td>
<td>Lab 2</td>
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<tr>
<td>3</td>
<td>Data driven apps</td>
<td>8-9</td>
<td>Lab 3</td>
<td></td>
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<td>4</td>
<td>Project Proposal Presentation</td>
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<tr>
<td>5</td>
<td>Graphics, storing data</td>
<td>10-11</td>
<td>Lab 4</td>
<td>HW1</td>
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<tr>
<td>6</td>
<td>Web apps</td>
<td>12-13</td>
<td>Lab 5</td>
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<tr>
<td>7</td>
<td>Web apps with database</td>
<td>12-13</td>
<td>Lab 6</td>
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<tr>
<td>8</td>
<td>Sensor apps</td>
<td>14, 18</td>
<td>Lab 7</td>
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<tr>
<td>9</td>
<td>Project Middle Update Presentation</td>
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<tr>
<td>10</td>
<td>Sensor apps</td>
<td>14, 18</td>
<td>Lab 8</td>
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<tr>
<td>11</td>
<td>Sensor apps</td>
<td>14, 18</td>
<td>Lab 9</td>
<td>HW2</td>
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<tr>
<td>12</td>
<td>Sensor apps</td>
<td>14, 18</td>
<td>Lab 10</td>
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<tr>
<td>13</td>
<td>Security of mobile app</td>
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<td>Lab 11</td>
<td></td>
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<tr>
<td>14</td>
<td>Secure mobile app development</td>
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<td>Lab 12</td>
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<td>15</td>
<td>Fall Break</td>
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<tr>
<td>16</td>
<td>Project Final Presentation</td>
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<td></td>
<td>HW3</td>
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</tbody>
</table>

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

**Grading Scale and Course Policies**

Homework, labs, and project will be given numerical scores. These scores will be averaged at the end of the semester using the following weighting:
### Course Details

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points, percentage or measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Assignments</td>
<td>25%</td>
</tr>
<tr>
<td>Homework</td>
<td>30%</td>
</tr>
<tr>
<td>Project</td>
<td>40%</td>
</tr>
<tr>
<td>Attendance</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Homework Submission:** Copying or paraphrasing codes from other sources or other students will be considered a violation of the Student Code of Conduct. Due dates for homework assignments will be specified on the homework themselves. **No late submission is accepted.**

**Lab Assignment Submission:** Each lab assignment is required to be accomplished in the corresponding lab session. **No late submission is accepted. Lab results must be checked by the instructor before submitting to D2L. No late submission is accepted.**

Letter grades will be determined by ranking the numerical averages of all students in the class. Cut-off points for grades will depend on the performance of the class as a whole; however, they will be no higher than 90 (A), 80 (B), 70 (C), and 60 (D).

Your final weight average will be used to determine your final letter grade using the table below:

- **A:** 90% and above
- **B:** 80% thru 89%
- **C:** 70% thru 79%
- **D:** 60% thru 69%
- **F:** less than 60%

**Course Policies:**

**Feedback in a Timely Manner:** The instructor will ONLY reply to e-mails that are sent using D2L email system. Please allow your instructor 24-48 hours before replying back to your email.

**Attendance Policy:** Regular attendance is expected; please notify me in advance if you will be unable to attend because of business travel or other valid reason. If a student misses 2 or more than 2 classes, the student's final grade may be decreased.

**Quiz/Exam Policy:** Three quizzes and three exams will be given throughout the semester. In most cases, quizzes will be administered during the first 20 minutes of class. Students who are late to class on a day when a quiz is administered will not be given extra time to complete the quiz. Makeup quizzes/exams **WILL NOT** be given.

**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 ([KSU Student Code of Conduct, Section III](#)), 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.
**Tutoring:**
The College of Computing and Software Engineering offers some tutoring services for certain courses. If this applies to your course, you may want to include this resource for your students. Tutoring info can be found here: http://ccse.kennesaw.edu/ccselabs/ccse-tutoring.php.

**COURSE WITHDRAWAL**

The last day to withdraw without academic penalty is **Oct. 9, 2019**.

Students may withdraw from one or more courses up to one week prior to the last day of class. Summer withdrawal dates vary according to the part of term in which the student is enrolled. As of fall 2004, students will be allowed a maximum of eight total withdrawals if they enter KSU as a freshman. Transfer students will be allowed one withdrawal per fifteen credit hours attempted, for a maximum of eight. Students who choose to pursue a second degree at KSU will be allowed two additional withdrawals and consult with the Registrar's Office. Students who entered KSU before fall 2004 will be allowed one withdrawal per fifteen credit hours attempted for a maximum of eight after the institution of this policy. As part of the consolidation process between Kennesaw State University and Southern Polytechnic State University, SPSU students will have eight withdrawals available beginning Fall Semester 2015.

Students who exceed the maximum number of withdrawals will receive a grade of ‘WF’ for any subsequent withdrawals. To completely or partially withdraw from classes at KSU, a student must withdraw online through Owl Express. Students who officially withdraw from courses before the last day to withdraw without academic penalty will receive a grade of ‘W’ and receive no credit. Students who officially withdraw after the last day to withdraw without academic penalty and before the last week of classes during the semester or who have exceeded the maximum number of withdrawals will receive a grade of ‘WF,’ which will be counted as an ‘F’ in the calculation of their grade point average. The only exceptions to these withdrawal regulations will be for instances involving unusual circumstances, which must be fully documented. Students may appeal to the Academic Standing Committee for consideration of unusual circumstances. Exact withdrawal dates are published in the official academic calendar. Students will receive refunds only when they withdraw from ALL their classes and only by the schedule outlined in the University System refund policy.

**Assistance Outside of Class**

You may seek assistance outside of class from the instructor.

When you seek help it is important that you bring the necessary materials with you so that we can effectively advise you. If you are seeking help with classroom work bring your text and your classroom notes. If you are seeking help with pencil and paper exercises bring your text, your classroom notes, and whatever attempts you have made with the exercises.

If you are seeking help with a program make sure you bring a diskette or flash drive with the most current versions of all *.java files. Bring paper listings of these files. If you were getting error messages, record them as accurately as you can.

Again, bring your most current versions of your work. The ability to help you is GREATLY reduced without the current versions.

**Student Course Evaluation**

A standard questionnaire (described below) will be administered during the last two weeks of the semester in all classes. Additional questions developed by the college or instructor(s) may be included as well. It is important that each student provide meaningful feedback to the instructor(s) so that changes can be made in the course to continually improve its effectiveness. We value student feedback about the course, our teaching styles, and course materials, so as to improve our teaching and your learning. At a minimum, the following two questions will be asked: 1) Identify the aspects of the course that most contributed to your learning (include examples of specific materials, exercises and/or the faculty member's approach to teaching and mentoring), and 2) Identify the aspects of the course, if any, that might be improved (include examples of specific materials, exercises and/or the faculty member's approach to teaching and mentoring).
Acquiring Final Grades

In an effort to better utilize our technology resources, Kennesaw State University has instituted the reporting of end of term grades by phone. This is in addition to the web version of grades, which has been in effect for several terms. Students may call 770-420-4315 and select Option Number 4 to secure their end of term grades. With this new development, printed grade reports will not be mailed at the end of the term. Students needing verification of grades or enrollment should request either an official transcript or an enrollment verification through the Office of the Registrar.

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.

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/webref.html](http://www.apa.org/journals/webref.html)
- [http://bailiwick.lib.uiowa.edu/journalism/cite.html](http://bailiwick.lib.uiowa.edu/journalism/cite.html)
- [http://www.indiana.edu/~wts/wts/plagiarism.html](http://www.indiana.edu/~wts/wts/plagiarism.html)
- [http://www.virtualsalt.com/antiplag.htm](http://www.virtualsalt.com/antiplag.htm)

ADDITIONAL STUDENT RESOURCES

For CCSE Student resources:
[http://ccse.kennesaw.edu/student-resources.php](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

For Academic Advising information and to schedule appointments:

Links to frequently used and helpful services:
[http://www.kennesaw.edu/myksu/](http://www.kennesaw.edu/myksu/)
CS 3503/08- Computer Organization and Architecture

SYLLABUS

FACULTY AND COURSE INFORMATION

Dan C. Lo, Ph.D.
Professor
Dan.Lo@kennesaw.edu, 470-5478-5487, J-389

Class Location and Meeting Times:

T/R 3:30-4:45PM at J-251
Official Course Web in D2L

Course Communication and Office Hours:
Office Hours: T/R 12:00-2:00PM

Electronic Communications -
“Send emails only to dlo2@kennesaw.view.usg.edu (students must use their D2L email accounts to send to this address)”

Email Answering Policy

- Email messages received by 5:00 PM in weekdays will be replied in the same day (by 11:59 PM).
- Other messages will NOT be guaranteed to be responded in the same day.
- Only email in D2L will be replied.

Required Texts or Technology Resources -
Required: N/A

Recommended:

Teaching/Lab Assistant – N/A

[Additional Resources]

COURSE DESCRIPTION, CREDIT HOURS, AND PREREQUISITES

CS 3503: Computer Organization and Architecture
3 Class Hours 0 Laboratory Hours 3 Credit Hours
**Prerequisite:** CSE 1322 and CSE 1322L  Concurrent: CS 3503L

Introduction and overview of basic computer organization. Computer arithmetic: binary, hexadecimal and decimal number conversions, binary number arithmetic and IEEE binary floating point number standard. Basic computer logic: gates, combinational circuits, sequential circuits, adders, ALU, SRAM and DRAM. Basic assembly language programming, basic Instruction Set Architecture (ISA), and the design of single cycle CPU. Hardware security will be introduced.

**COURSE LEARNING OUTCOMES**

Students will be able to:

1. Apply different formats of data representation and number systems.
2. Use Boolean algebra as related to designing computer logic, including solving Karnaugh maps.
3. Design and evaluate combinational and sequential logic circuits with multiple inputs and outputs.
4. Design simple combinatorial and sequential logic circuits, using a small number of logic gates.
5. Assemble a simple computer with hardware design including data format, instruction format, instruction set, addressing modes, bus structure, input/output, memory, Arithmetic/Logic unit, control unit, and data, instruction and address flow.
6. Design simple assembly language programs that make appropriate use of a registers and memory.
7. Describe hardware/firmware security vulnerabilities and techniques to mitigate these vulnerabilities.

**TEACHING PHILOSOPHY AND INSTRUCTION METHODS**

My primary teaching goal is to offer a series of courses imparting a broad perspective on the discipline and a firm foundation in the theory and practice of computer science through a rich set of educational experiences. Recent advances in computer systems including open source software, embedded systems, mobile computing, and parallel processing, have allowed applications to be implemented much more easily and less costly. The challenge I would like to bring into the classroom is: how can we exploit current technology to facilitate the demanding applications with a degree of rigor in information security and reliability. In learning theory, I advocate authentic learning and metacognition. Moreover, integrating the technology and application trends into computer science courses should be extended from the classroom into the laboratory and emphasized through larger term projects. This has led to my teaching activities in revising existing courses by bringing in the latest developments in the discipline.

**COURSE CONTENT AND REQUIREMENTS/GRADING SCALE**

Course Topics and Outline

<table>
<thead>
<tr>
<th></th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction, History, Data Representation, Arithmetic &amp; Numeral Systems, Conversions</td>
</tr>
<tr>
<td>2</td>
<td>Signed Numbers, Computer Arithmetic, Binary Multiplication/Division, Booth’s Algorithm</td>
</tr>
<tr>
<td>3</td>
<td>Boolean Algebra, Gates, Combinational Logic Design</td>
</tr>
<tr>
<td>4</td>
<td>Half/Full Adders, Simplification of Boolean Expressions, Karnaugh Maps</td>
</tr>
<tr>
<td>5</td>
<td>Schematic Design and Simulation</td>
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<td></td>
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<td>---</td>
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</tr>
<tr>
<td>6</td>
<td>State Machines, Sequential Logic Design, Registers, Hardware Description Languages</td>
</tr>
<tr>
<td>7</td>
<td>ALU and CPU</td>
</tr>
<tr>
<td>8</td>
<td>Assembly Programming, Addressing, Low Power Computing</td>
</tr>
<tr>
<td>9</td>
<td>Instruction Set Architecture</td>
</tr>
<tr>
<td>10</td>
<td>Processor, Memory, I/O, Interrupts</td>
</tr>
<tr>
<td>11</td>
<td>Memory Systems, Memory Hierarchy, Cache Organizations, Virtual Memory</td>
</tr>
<tr>
<td>12</td>
<td>Parallel Computing, Multiprocessors, Multicomputers</td>
</tr>
</tbody>
</table>

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Grading Scale and Course Policies

Grading Scale:

- Homework Assignments: 30%
- Test 1&2: 30%
- Test 3: 20%
- Attendance & Quizzes: 20%

Each homework is due at the start of class on the due date. Late homework will receive penalty based on the formula, \( \text{penalty} = (\text{number of days late})^2 \), and must be submitted via the late submission dropbox in D2L. No make-up exams will be given except for university-sanctioned absences. All lab works are due in labs. The students are expected to attend all classes. All quizzes are online and due by hard deadlines.

Points to grade ratio (I reserve the right to make adjustments for borderline cases.)

- A: [90, 100]
- B: [80, 90)
- C: [70, 80)
- D: [60, 70)
- F: [0, 60)

Course Policies:

Feedback in a Timely Manner:
All submitted work graded and returned within a week.

Attendance Policy:
“Attendance at all classes is highly encouraged. Concepts and ideas discussed in one class are used as building blocks for more concepts and ideas in the next class. In being successful in this subject matter, a good rule-of-thumb is to study at least 3 hours per one hour of lecture. Any class sessions missed by the student are the student's responsibility to make up, not the Professor's. Makeup exams will NOT be given; instead, the final
exam will count in place of the missed exam; if the final exam is missed, an average of the other exams will be used. No finals will be given outside of the University finals schedule. Project assignments MUST be turned in on time to receive full credit. Students will not be allowed to makeup missed project assignments or labs. Students are expected to read the text and any other supporting documentation the Professor distributes. If the student requires additional materials to read or additional problems to solve in better understanding the topics and concepts, the Professor expects the student to take the initiative in locating additional materials or problems. The Professor expects students to take advantage of office hours when needing clarification or help. The Professor greatly supports students sending emails at any time – it will be the goal of the Professor to reply to emails within a 24-hour time span.”

**Quiz/Test/Project/Assignment Policy:** Quizzes will be online in D2L and exams will be in class proctored.

**Quizzes**
There will be 8+ quizzes (covering from all modules) to assess learning after completing several topics. All quizzes are online with hard deadlines and no extension will be given. The lowest quiz mark will be dropped automatically.

**Tests**
There will be 3 tests from each of the modules assessing learning based on covered topics. Test 1 on 9/17, Test 2 on 10/22, and Test 3 on 12/5.
Tests are closed book and strictly timed in classroom unless otherwise mentioned. Failure to show at test time will mean no credit for the test. No make-up exams will be given except for university sanctioned absences.

**Projects**
There will be a course project that will be needed to be done in a group of 3 students. The project topics need to be approved by the instructor. Some topics will be suggested. The project has two parts for marking: implementation and demo (the last 2 weeks reserved for demo), and report writing. The instructor will make provide feedback on proposal and progress with tentative timeline to complete project.

**Assignments**
Assignments will be handed over throughout the term and students will be given sufficient amount of time to complete it with resources. Assignments are intended for completing on individual basis. Students are highly encouraged to submit assignment by due date to avoid penalties in marks. Late assignments will receive penalty based on the formula, penalty = (number of days late)³, and must be submitted via the late submission dropbox in D2L.

**Make-up Policy:**
  **Proctored Exams:**
  If you have been granted for a make-up, you must use The Testing Center for proctored exam services. Please note, some of these services have a charge affiliated you and you are responsible for the cost. [http://testing.kennesaw.edu/faculty/request-services.php](http://testing.kennesaw.edu/faculty/request-services.php)

**Course Technology:** Typical laptop computers are enough.

**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.”

**Tutoring:**
N/A
COURSE WITHDRAWAL

Last day to drop/add: August 23rd
Last Day to Withdraw Without Academic Penalty: October 9th

See below for commentary on withdrawals from the 2018-2019 Undergraduate Catalog:

Students may withdraw from one or more courses up to one week prior to the last day of class. Summer withdrawal dates vary according to the part of term in which the student is enrolled. As of fall 2004, students will be allowed a maximum of eight total withdrawals if they enter KSU as a freshman. Transfer students will be allowed one withdrawal per fifteen credit hours attempted, for a maximum of eight. Students who choose to pursue a second degree at KSU will be allowed two additional withdrawals and consult with the Registrar's Office. Students who entered KSU before fall 2004 will be allowed one withdrawal per fifteen credit hours attempted for a maximum of eight after the institution of this policy. As part of the consolidation process between Kennesaw State University and Southern Polytechnic State University, SPSU students will have eight withdrawals available beginning Fall Semester 2015.

Students who exceed the maximum number of withdrawals will receive a grade of "WF" for any subsequent withdrawals. To completely or partially withdraw from classes at KSU, a student must withdraw online through Owl Express.

Students who officially withdraw from courses before the last day to withdraw without academic penalty will receive a grade of "W" and receive no credit. Students who officially withdraw after the last day to withdraw without academic penalty and before the last week of classes during the semester or who have exceeded the maximum number of withdrawals will receive a grade of "WF," which will be counted as an "F" in the calculation of their grade point average.

For attendance verification, faculty may assign "non-attendance" or submit a grade of W or WF for students who stop attending class and do not officially withdraw along with the last day of known attendance.

The only exceptions to these withdrawal regulations will be for instances involving unusual circumstances, which must be fully documented. Students may appeal to the Academic Standing Committee for consideration of unusual circumstances. Exact withdrawal dates are published in the official academic calendar. Students will receive refunds only when they withdraw from ALL their classes and only by the schedule outlined in the University System refund policy.

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.

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:
**CAMPUSS POLICIES**

Confidentiality and Privacy Statement (FERPA):
Kennesaw State University adheres to the Family Educational Rights & Privacy Act of 1974 - FERPA. See the following link for more information:
http://usg.edu/information_technology_handbook/section9/tech/9.5_privacy_and_security

University - Student Rights & Responsibilities:
Students of Kennesaw State University are entitled to an environment that is conducive to learning and individual growth. To this end, students enrolling at Kennesaw State University assume a responsibility to abide by the policies and regulations expressed in this section. By doing so, students may fulfill their responsibilities and enjoy the exercise of their own rights while also respecting the rights of others.
http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263

Ethics Statement:
All students are responsible for knowing the information, policies and procedures outlined in the Kennesaw State University Codes of Conduct. The KSU Codes of Conduct include: the general Student Code of Conduct, the Residential Code of Conduct, and the Code of Academic Integrity. Kennesaw State University reserves the right to make changes to this code as necessary and once those changes are posted online, they are in effect. Students are encouraged to check online for the updated versions of all policies.
http://scai.kennesaw.edu/codes.php

Sexual Misconduct Policy:
Kennesaw State University is committed to providing programs, activities, and educational environment free from all forms of sex discrimination. For more information click here. KSU issues this statement of policy to inform the community of the University's comprehensive plan addressing sexual misconduct, educational programs, and procedures that address sexual assault, domestic violence, dating violence, and stalking, whether the incident occurs on or off campus. This policy generally covers faculty, students, and staff of the University, as well as third parties. Third parties include but are not limited to guests, vendors, contractors, retirees, and alumni.
http://scai.kennesaw.edu/procedures/sexual-misconduct.php

Course Accessibility Statement (ADA Statement):
http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263&hl=FERPA&returnto=search#ADA

**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

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/
Department of Career Planning & Development
https://careers.kennesaw.edu

Counseling and Psychological Services
https://counseling.kennesaw.edu

Center for Health Promotion and Wellness
https://wellness.kennesaw.edu

Student Health Services
https://studenthealth.kennesaw.edu
**Instructor**
Dr. Sarah M. North, Instructor  
Email: snorth@kennesaw.edu  
Cell: 678-520-6102  Voice: 470-578-7774  
Office hours: MW 5:30-6:30pm at Marietta Campus  
Kennesaw Campus (Chastain Pointe 206 J)  
Other hours via D2L [http://d2l.kennesaw.edu](http://d2l.kennesaw.edu) Chat sessions and/or by appointment only  
Statement of Teaching Philosophy

**Class Design/Use of Virtual Café**
This course will be delivered in an online delivery mode with lectures video recording (.mp4) via D2L, laboratory activities, assignments, assessments, and supported resources.

An online course can offer opportunities for students to pursue their educational objectives when attending school with a different delivery method (Online) than the traditional in-class method. Specifically, this course will be delivered by online lectures with supporting research project, presentation, and examination. All lecture notes will installed and available via KSU D2L Brightspace learning management system [http://d2l.kennesaw.edu/](http://d2l.kennesaw.edu/).

**Student-centered learning**
Variety of online student-centered learning tools will complement individual student learning styles and help students becomes more versatile learners.

**Collaborative learning**
Online group work allows students to become more active participants in the learning process. Contributing input requires that students comprehend what is being discussed, organize their thinking coherently, and express that thinking with carefully constructed language.

**Course Communications:** Student Communicate via D2L [http://d2l.kennesaw.edu/](http://d2l.kennesaw.edu/) Course/Virtual Café on Tues/Thurs from 7:00pm-9:00pm.

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**Textbook & Resources**
No textbook required for this course.  
Learning materials will be provided through D2L course web.

**Optional Reading Resources**

   ISBN: 978-460-053423

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**Prerequisite**
Undergraduate Semester level CSE 1322 and CS 1322L  
[http://cs.kennesaw.edu/academics/undergraduate/bscs.html](http://cs.kennesaw.edu/academics/undergraduate/bscs.html)
<table>
<thead>
<tr>
<th>Program</th>
<th>BSCS (Bachelor of Science in Computer Science)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours</td>
<td>3 Credit Hours</td>
</tr>
<tr>
<td>Area</td>
<td>Major Electives</td>
</tr>
<tr>
<td>Course Description</td>
<td>A comprehensive study of techniques in design and implementation of user interfaces engineering. Topics include the foundation of human-computer interaction and interface related to software lifecycle, building a graphic user interface engineering, interaction devices and technologies, human-computer dialogue, cognitive models, usability, the design and development process, user interface management systems (UIMS), interface style and techniques, user learning, and diversity in interaction styles. Major research and the building of a working graphic user interface are included.</td>
</tr>
<tr>
<td>Course Learning Outcomes</td>
<td>After successful completion of this course, a student should: 1. Describe basic user interface engineering definitions, concepts, and principles. 2. Apply user interface concepts and principles to analyze and evaluate a variety of approaches to user interface design. 3. Acquire an understanding of needs analysis of user interactions/interfaces, legal, ethical, and social issues. 4. Design, develop, implement, and present a new user interface for an application applying concepts and principles of user interface.</td>
</tr>
<tr>
<td>Contribution Of The Course To The Program Outcomes</td>
<td>• Computer Science graduates will be successful professionals in the field with solid fundamental knowledge of computer science, making valuable technical contributions to the design, development, and production of computing systems and related areas. • Computer Science graduates will have the ability to learn and to master new computing technologies and new concepts and can apply these technologies and concepts in varied areas, including furthering their education with an advanced degree. • Computer Science graduates will be prepared to be a contributing member or lead a computing team with strong communication, interpersonal, professional and ethical skills</td>
</tr>
<tr>
<td>Funding Required</td>
<td>• None</td>
</tr>
<tr>
<td>Lab Fees or Special Tuition</td>
<td>• None</td>
</tr>
<tr>
<td>Assessment Plan And Process</td>
<td>Learning Objectives and Assessment Plan and Process</td>
</tr>
<tr>
<td>Learning Objectives</td>
<td></td>
</tr>
<tr>
<td>• Apply user interface concepts and principles to analyze, evaluate, and design a variety of approaches to design GUI (graphical interface design) Apps by using any programming languages that is desired.</td>
<td>• UIE Research Project Reports, 40%</td>
</tr>
<tr>
<td>• Apply user interface concepts and principles to analyze and evaluate a variety of approaches to user interface design.</td>
<td>• Research Project (s) Reports, 20%</td>
</tr>
<tr>
<td>• Design, develop, implement, and present a new user interface for an application applying concepts and principles of user interface.</td>
<td>• GUI Mini Projects, 30%  • Research Project Report Group (1st, 2nd, 3rd, &amp; 4th Deliverables), 40%</td>
</tr>
<tr>
<td>Table of Content</td>
<td>Module 1:</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>• Prominence of User Interface Design</td>
</tr>
<tr>
<td>Module 2:</td>
<td>• Conceptualization of User Interface Design</td>
</tr>
<tr>
<td>Module 3:</td>
<td>• Design Process of User Interface</td>
</tr>
<tr>
<td>Module 4:</td>
<td>• Business Function, Collaboration and Communication</td>
</tr>
<tr>
<td>Module 5:</td>
<td>• User Emotional Characteristics</td>
</tr>
<tr>
<td>Module 6:</td>
<td>• User Interfaces and Interactions</td>
</tr>
<tr>
<td>Module 7 &amp; 8:</td>
<td>• Measurements, Data Collection and Analysis</td>
</tr>
<tr>
<td></td>
<td>• Evaluation Approaches</td>
</tr>
<tr>
<td>Module 9 &amp; 10:</td>
<td>• Usability Testing</td>
</tr>
<tr>
<td></td>
<td>• Phases of User Interface Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turnaround Time on Assignments/Assessments</th>
<th>All in-class and online assignments and assessments will be graded and posted within a week after the due dates.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Response Time to Emails and Voicemails</th>
<th>I will respond to all emails and voicemails within 24 hours on weekdays and 48 hours on weekends. Please e-mail via <a href="http://d2l.kennesaw.edu/">http://d2l.kennesaw.edu/</a>.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Tracking Learning Progress</th>
<th>Students have continuous opportunities to track their learning progress via Grade Tool provided on the D2L home page.</th>
</tr>
</thead>
</table>

**Attendance Policy:**
The Instructor expects your attendance on D2L daily, minimum 2-3 time per week. Grade performance is a demonstrated function of attendance, preparation, and participation online. Students in this class should realize the nature of the course in which they are enrolled. This is an online class with no on-campus meetings scheduled. Therefore, there are no planned face-to-face interactions between students or between students and the instructor.

Students are encouraged to visit the instructor on campus during office hours but this is not required. Students will interact with each other and with the instructor virtually, through online discussions in D2L, and email. It is easy to fall behind in any course, but especially in an online course where it is up to the student to formalize a time to work on course materials. In order to ensure a student does not fall behind it is STRONGLY encouraged that students keep to the schedule suggested in this syllabus [basically one course module per 2 weeks during Fall and Spring semesters and four per week during a 4-week Summer semester].

All instructors will provide the students, at the beginning of each semester, a clear statement regarding their policies in handling absences. Instructors will also be responsible for advising their students regarding the academic consequences of absences. To view the complete student attendance policy, please visit [http://catalog.kennesaw.edu/content.php?catoid=38&navoid=3019#attendancepolicy](http://catalog.kennesaw.edu/content.php?catoid=38&navoid=3019#attendancepolicy)
Evaluation criteria explained:
- Students are expected to be active participants in each course activities. Full credit for participation will be extended to students who regularly participate in discussion, share ideas, and contribute relevant personal experiences.
- Examinations will consist of essay (short and long answers), multiple choices, T/F questions, technological comprehension that cover in the lecture material, and assigned readings.
- Students will be given specific guidance on the amount of collaboration permitted for each assignment.

Assignments:
Assignments are due throughout the term. Each of these assignments is weighted as noted in the assessment section below. You lose 20% of your score if you turn in a homework/presentation/assignment late, and late presentation/project/assignments will only be accepted up to one week after the due date! Late works / assignments / projects are not accepted!

Note: Any assignments, project, online assessment past the due dates points off (above restriction) and/or will not be accepted.

Late Assignments Policy:
Assignments are due throughout the term and must be submitted through D2L by 11:59pm on designated due date for each assignment. Each assignment is weighted as noted in the assessment section below. You lose 20% of your score if you turn in a homework assignment late, and late assignments will only be accepted up to one week after the due date!

UIE Assignments

<table>
<thead>
<tr>
<th>1</th>
<th>UIE Interface Assignments &amp; Individual Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>There will be User Interface Engineering assignments that you can create Windows GUI applications using Java, Python, C++, Visual Basic .net, or any other programming languages that you are comfortable to program with. Please refer to learning modules and/or dropbox for detail descriptions.</td>
</tr>
<tr>
<td></td>
<td>• Please DO NOT COPY &amp; Paste from Websites, etc., you can re-write and Paraphrase.</td>
</tr>
<tr>
<td></td>
<td>• Your instructor will check each deliverables report for similarity using plagiarism Turnitin software.</td>
</tr>
</tbody>
</table>

| 2 | UIE Group Research Project from Google Scholar and/or KSU/ACM digital library |
|   | Click here for Project Technologies |
|   | Click here for Project Guidelines |
|   | o Each student expected to work as a team (3-5) or individual project by locate an article(s) in those topic given, collect data; write a paper; and submit via D2L the assignment dropbox. (Refer to project guidelines via d2l.) |
|   | o Since this is an online course, your team leader/members can submit one report when each deliverables due by including all the team member’s name on the first page. (One Submission per team) |
|   | o Please make sure to re-write (For example, paraphrasing is acceptable with proper citations) the 16 pages overall (four pages in each deliverables) (from website/resources, no graphs/figure, unless you re-design it yourself and/or add cited. |
|   | o Please DO NOT Copy and Paste from the Website/Google. |
|   | o Your instructor will check each deliverables report for similarity using plagiarism software. |
|   | o The project format needs to follow APA format with references. HCI/UID articles must be from scholarly article publication at ACM (Association For Computing Machinery; login to KSU Digital Library and ACM full text archive) including references. (Sample will be provided) |

Please read refer to e-research book to get to know research project components e-Research Textbook- How to Build Skills in Research
**Research/Paper Project Requirements:**
The purpose of the project is to provide an opportunity for you to conduct a HCI design/user interface research project/paper and learn about research methodology, understand, organize, and present a synopsis of a current topic/research project in HCI/UID. Projects can address virtually any technical issue in the area of HCI/UID technologies. The report is to be done individually and/or group within the 4 phases of deliverables. Please read to [http://www.drnorth.net/E-Research-Book.exe](http://www.drnorth.net/E-Research-Book.exe) e-research book to get to know research project components.

**APA Documenting Required:**
All CS students are encouraged to use digital or library of the American Psychological Association (APA), available in the KSU bookstore and elsewhere. When any portion of another author's work is used, whether it is from a course textbook or outside work, including the World Wide Web, in whole, in part, or paraphrased, that work must be cited. Proper citation formats are provided. Failure to do so can result in Academic Misconduct Proceedings.

**Student Course Evaluation:**
A standard questionnaire (described below) will be administered during the last two weeks of the semester in all courses. Additional questions developed by the college or instructor(s) may be included as well. It is important that each student provide meaningful feedback to the instructor(s) so that changes can be made in the course to continually improve its effectiveness. We value student feedback about the course, our teaching styles, and course materials, so as to improve our teaching and you’re learning. At a minimum, the following two questions will be asked:

1. Identify the aspects of the course that most contributed to your learning (include examples of specific materials, exercises and/or the faculty member's approach to teaching and mentoring), and
2. Identify the aspects of the course; if any that might be improved (include examples of specific materials, exercises and/or the faculty member's approach to teaching and mentoring).

*All the assignments will be checked by Turnitin software for similarity.*

**Assessment Grades will be calculated as follows:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>UIE – *Assignments – GUI</td>
<td>200</td>
</tr>
<tr>
<td>UIE/HCI * Research Project Report</td>
<td>300</td>
</tr>
<tr>
<td>■ 1st &amp; 3rd Deliverables -100 pts</td>
<td></td>
</tr>
<tr>
<td>■ Midterm Project Report/Video Clip/Presentation (2nd Deliverable) – 100 pts</td>
<td></td>
</tr>
<tr>
<td>■ Final Project Report/Video Clip/Presentation (4th Deliverable) – 100 pts</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500</strong></td>
</tr>
</tbody>
</table>

**Grading Scale:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Point System</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% - 100%</td>
<td>450 - 500</td>
</tr>
<tr>
<td>B</td>
<td>80% - 89%</td>
<td>400 - 449</td>
</tr>
<tr>
<td>C</td>
<td>70% - 79%</td>
<td>350 - 399</td>
</tr>
<tr>
<td>D</td>
<td>60% - 69%</td>
<td>300 - 349</td>
</tr>
<tr>
<td>F</td>
<td>59% or below</td>
<td>299 - 0</td>
</tr>
</tbody>
</table>

**Withdrawal Policy:**
The last day to withdraw without academic penalty is shown on the course schedule. Ceasing to attend course via D2L or oral notice thereof DOES NOT constitute official withdrawal from the course. Students who simply stop participating course weekly via D2L without officially withdrawing usually are assigned failing grades. Students wishing to withdraw after the scheduled change period (add/drop) must obtain and complete a withdrawal form from the Academic Services Department in the Registrar's Office.
**Incomplete Policy:**
The grade of “I” denotes an incomplete grade for the course, and will be awarded only when the student has done satisfactory work up to the last two weeks of the semester, but for nonacademic reasons beyond his/her control is unable to meet the full requirements of the course. A grade of “I” must be removed (by completing the course requirements) within one calendar year from the end of the semester in which the “I” was originally assigned.
http://www.kennesaw.edu/foreignlanguage/facultyinfo/IncompletePolicy.html

**Enrollment Policy:**
Only those students who are enrolled in the online course may visit the lectures, receive assignments, take quizzes and exams, and receive a grade for the course via D2L. If a student is administratively withdrawn from this course, they will not be permitted to participate in any online course activities nor will they receive any grade for the course.

**Email Messages:**
Remember to put the course name and section number in the subject field of every e-mail message that you send me. E-mail messages that are missing this information are likely to be automatically redirected to a folder I seldom check.

**Diversity Statement:**
All courses offered by the Computer Science department will adhere to the KSU policy that prohibits discrimination on the basis of race, religion, color, sex, age, disability, national origin, or sexual orientation.

**Disability Statement:**
Any student with a documented disability needing academic adjustments is requested to notify the instructor as early in the semester as possible, and must do so before the mid-term exam. Verification from KSU disabled Student Support Services is required. All discussions will remain confidential.
http://www.kennesaw.edu/stu_dev/dsss/dsss.html

**Student Email and Web Account Access:**
KSU is moving towards a central authentication server that will allow one username and password to be used by all KSU users to access an increasing variety of applications (email, D2L etc.) This unified network identification is referred to as your "NetID". The new source for university-provided email and web space for students will be located at students.kennesaw.edu All students will have access to this system once they have established their NetID.

**How to Activate your NetID:**
To activate your NetID go to http://netid.kennesaw.edu and click on "Sign up Now!" link. You will be asked to provide information to verify your identity and set your password. This password will only be for NETID enabled applications.

**How to Look Up a NetID:**
After you have activated your NetID, you can look up other users by logging into http://netid.kennesaw.edu and clicking on Directory Search.

**How to Send Email:**
For student email, your NetID in combination with the new email address would look like netid@students.kennesaw.edu.

**Web Address:**
For student web address, your NETID in combination with the new server address would look like http://students.kennesaw.edu/~netid.
If you have problems please call the Service Desk at ext. 6999 or e-mail service@kennesaw.edu.

**Acquiring Final Grades:**
In an effort to better utilize our technology resources, Kennesaw State University has instituted the reporting of end of term grades by phone. This is in addition to the web version of grades, which has been in effect for several terms. All current semester term students may call 770-420-4315 and select Option Number 4 to secure their end of term grades. With this new development, printed grade reports will not be
mailed at the end of the term. Students needing verification of grades or enrollment should request either an official transcript or enrollment verification through the Office of the Registrar.

Any student with a documented disability needing academic adjustments is requested to notify the instructor as early in the semester as possible, and must do so before the mid-term exam. Verification from KSU disabled Student Support Services is required. All discussions will remain confidential.

**Academic Integrity Statement:**
Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section 5c 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 Department of Student Conduct and Academic Integrity (SCAI), 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. See also [https://web.kennesaw.edu/scai/content/ksu-student-code-conduct](https://web.kennesaw.edu/scai/content/ksu-student-code-conduct)

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.

**Confidentiality and Privacy Statement (FERPA)**
[http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263&hl=FERPA&returnto=search#rightsofstudentrecords](http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263&hl=FERPA&returnto=search#rightsofstudentrecords) Suggested Language: Kennesaw State University adheres to the Family Educational Rights & Privacy Act of 1974 – FERPA. See the following link for more information:
[http://www.usg.edu/information_technology_handbook/section9/tech/9.5_privacy_and_security](http://www.usg.edu/information_technology_handbook/section9/tech/9.5_privacy_and_security)

**University – Student Rights & Responsibilities**
Ethics Statement [http://scai.kennesaw.edu/codes.php](http://scai.kennesaw.edu/codes.php)

### Communication Etiquette

<table>
<thead>
<tr>
<th>Communication Tool</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Please use our course <a href="#">D2L e-mail to communicate</a></td>
</tr>
<tr>
<td>Instructor Response Time</td>
<td>Questions submitted to the instructor via D2L email or the discussion area will receive a reply within 24 hours. Weekends may take longer. All the assignments will be graded and provide feedback within a week. Please check your course progress on &quot;D2L home page,&quot; &quot;Grade Tab.&quot;</td>
</tr>
<tr>
<td>Emergencies</td>
<td>In the case of an emergency, use the email or phone number that is listed in the syllabus and on the home page.</td>
</tr>
<tr>
<td>Communication in General</td>
<td>Please use the instructor's university email account listed on the Home page and in the syllabus. <a href="mailto:snorth@kennesaw.edu">snorth@kennesaw.edu</a> or 678-520-6102</td>
</tr>
<tr>
<td>Communication with each other and the instructor</td>
<td>We want everyone to experience a positive experience in this class. Be sure when you have chats, or other types of discussions (such as with labs), that you always are respectful of each other. I will always be respectful of each of you.</td>
</tr>
</tbody>
</table>
Disclaimer: This syllabus is subject to change as the need arises. This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Student’s Support

- Counseling and Psychological Services [https://counseling.kennesaw.edu/](https://counseling.kennesaw.edu/)
- Center for Health Promotion and Wellness [https://wellness.kennesaw.edu/index.php](https://wellness.kennesaw.edu/index.php)
- Student Health Services [https://studenthealth.kennesaw.edu/index.php](https://studenthealth.kennesaw.edu/index.php)

Course Accessibility Statement (ADA statement) [http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263&hl=FERPA&returnto=search#ADA](http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263&hl=FERPA&returnto=search#ADA)

Disruption of Campus Life Policy [http://scai.kennesaw.edu/codes.php](http://scai.kennesaw.edu/codes.php)

WEB ACCESSIBILITY

Kennesaw State University follows the guidelines of the Universal Design for Learning standard of web accessibility. Faculty use Word, PDF, and HTML formats when communicating electronic information to students whenever possible and appropriate in light of the goals of the course. Faculty are trained to use Web Accessibility Evaluation tools, e.g., WAVE (www.wave.webaim.org), and make adjustments as possible and appropriate in light of the goals of the course.

For free resources available to students on web accessibility, please visit the Web Accessibility Resources page at the Distance Learning Center: [http://www.kennesaw.edu/dlc/facultyresources/index.php#](http://www.kennesaw.edu/dlc/facultyresources/index.php#)

COPYRIGHT LAW

Kennesaw State University adheres to USG’s policy to respect the right of copyright. Holders and comply with copyright laws as set forth in the United States Copyright act. For more information, see the following link to USG’s policy: [http://www.usg.edu/copyright/](http://www.usg.edu/copyright/)

ELECTRONIC RECORDING AND SOCIAL MEDIA

Electronic recording performed without the consent of the people being recorded chills the free exchange of ideas. Academic freedom, free inquiry, and freedom of expression should not be limited by the fear that one’s brainstorming, polemic discourse, speculative inquiry, or any other kind of expressed curiosity made within the space of a university classroom will be made public without one’s consent. This fear is unacceptable regardless of whether one is in an online, hybrid, or face-to-face classroom setting. Accordingly, no person shall make public any electronically recorded class discussion without the written permission of the instructor. This policy is not intended to discourage electronic recording in the classroom or the use of social media when such actions are performed with the written consent of the instructor, and others as appropriate. Note: Faculty accommodate all reasonable requests to electronically record a class discussion; these requests must be documented by the DisAbled Student Support Services available at: [http://www.kennesaw.edu/stu_dev/dsss/prospect.shtml](http://www.kennesaw.edu/stu_dev/dsss/prospect.shtml)
<table>
<thead>
<tr>
<th>Weeks</th>
<th>Due Dates</th>
<th>Course Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Module_1</td>
<td>Welcome- Login to <a href="http://D2L.kennesaw.edu">http://D2L.kennesaw.edu</a> and overview Course Start here</td>
</tr>
<tr>
<td></td>
<td>Module Tasks Due Sept 3</td>
<td>Module 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prominence of User Interface Design</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GUI Assignment_1 Due - <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td>2</td>
<td>Module_2</td>
<td>Module 2</td>
</tr>
<tr>
<td></td>
<td>Module Tasks Due Sept 16</td>
<td>• Conceptualization of User Interface Design</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Project 1st Deliverable Report Due - <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td>3</td>
<td>Module_3</td>
<td>Module 3</td>
</tr>
<tr>
<td></td>
<td>Module Tasks Due Sept 30</td>
<td>• Design Process of User Interface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GUI Assignment_2 Due - <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td>4</td>
<td>Module_4</td>
<td>Module 4</td>
</tr>
<tr>
<td></td>
<td>Module Tasks Due Oct 14</td>
<td>• Business Function, Collaboration and Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Project 2nd Deliverable Report Due - <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Submit Mid-Term Group PP/Video clip Presentation Due</td>
</tr>
<tr>
<td>5</td>
<td>Module_5</td>
<td>Module 5</td>
</tr>
<tr>
<td></td>
<td>Module Tasks Due Oct 28</td>
<td>• User Emotional Characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GUI Assignment_3 Due - <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td>6</td>
<td>Module_6</td>
<td>Module 6</td>
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<tr>
<td></td>
<td>Module Tasks Due Nov 11</td>
<td>• User Interfaces and Interactions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Project 3rd Deliverable Report Due <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td>7</td>
<td>Module_7</td>
<td>Module 7 &amp; 8</td>
</tr>
<tr>
<td></td>
<td>Module Tasks Due Nov 22</td>
<td>• Measurements, Data Collection and Analysis &amp; Evaluation Approaches</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GUI Assignment_4 Due - <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td>8</td>
<td>Module_8</td>
<td>Module 9 &amp; 10</td>
</tr>
<tr>
<td></td>
<td>Dec 2</td>
<td>• Usability Testing &amp; Phases of User Interface Design</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Project 4th Deliverable Report Due <a href="http://D2L.kennesaw.edu">Refer to D2L</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Submit Final Group PP/Video Clip Presentation Due</td>
</tr>
</tbody>
</table>
SYLLABUS

FACULTY AND COURSE INFORMATION

Dr. Yong Shi
yshi5 at kennesaw dot edu, 770-423-6423, J 311

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):

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):

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

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<td>15%</td>
<td>C</td>
<td>70 - 79</td>
</tr>
<tr>
<td>Test II</td>
<td>15%</td>
<td>D</td>
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<tr>
<td>Test III</td>
<td>15%</td>
<td>F</td>
<td>59 or below</td>
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</table>

**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, 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:
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

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/webrref.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/dao/plagiarism.htm
http://alexia.lis.uiuc.edu/%7ejanicke/plagiar.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://quarles.unbc.edu/lsc/rpplagia.html

CS 4524 Cloud ComputingDr. Yong Shi
Course NameInstructor Name

Print NameStudent ID Number
FACULTY AND COURSE INFORMATION

Dr. Yong Shi
yshi5 at kennesaw dot edu, 770-423-6423, J 311

Class Location and Meeting Times: M/W 8:00PM-9:15PM Atrium Building- 106 or online

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 for Machine Learning and Cognitive Applications (MIT Press)
by Kai Hwang
ISBN-10: 026203641X

GENERAL EXPECTATIONS FOR COURSEWORK IN GRADUATE PROGRAMS

Graduate study is markedly different from undergraduate study. This graduate course syllabus serves as a general description of goals and expectations in the course, as well as providing logistical and organizational information. It has been approved by the Faculty of your Academic Department to meet objectives in your discipline, as well as the University’s Graduate Faculty standards for graduate study. It contains a number of resources for and expectations of you as a student. Instructionally, it is a general “plan” for the course and not a contract - please know that the course instructor is permitted some departures from it. If you have questions regarding this, please contact the Chair of your Academic Department.

1. Roles and Responsibilities. A graduate student should always remember that he or she is taking a particular graduate course to learn advanced content in an academic discipline. While graduate students are expected to think critically and ultimately be able to demonstrate mastery of advanced disciplinary knowledge, his or her instructor has already earned at least one – if not multiple – advanced degrees in the discipline, and spent (in some cases) decades studying it. A Graduate Faculty member may be regarded as a state or national authority in some aspect of the discipline being studied. Moreover, the instructor has an equal instructional obligation to all graduate students engaged in a particular learning activity. Consequently, the graduate instructor exercises
discretion in framing instructional interactions about the discipline with graduate students, which may include
decisions to terminate discussions or move the discussion to another topic.

2. Responsibility for Demonstrating Mastery of Advanced Content. Admission to a graduate program is
both elective and selective. In graduate study, a graduate student bears primary responsibility for acquiring
knowledge about the discipline he or she is studying. The primary role of a graduate instructor is to assist the
student in appropriately applying that knowledge at an advanced level in the discipline. Ultimately, a graduate
course provides a graduate student with the opportunity to demonstrate that she or he can master and apply
advanced knowledge in an academic discipline. The burden of demonstrating this mastery and application to the
satisfaction of the Graduate Faculty lies solely with the graduate student.

3. Availability of Graduate Faculty Members. Members of the Graduate Faculty are expected to be
authorities in their academic disciplines. In addition to teaching, graduate faculty members serve in significant
research, professional, and academic roles. Graduate students should be aware that, in any given semester, these
other responsibilities may constitute between forty (40) and eighty (80) percent of a professor’s workload.
Consequently, graduate students are advised to schedule meetings with their instructors well in advance,
knowing that a Graduate Faculty member’s research and service obligations may result in him or her not being
able to respond to the student for up to two (2) days during the academic week (M-F).

4. Interactions with Graduate Faculty Members. A graduate student should ensure that his or her interactions
with her or his instructors are professional and appropriate. It is a relationship that is far more analogous to an
employment relationship than a social friendship.

Within the Classroom (or Analogous) Environment. While graduate student thinking and discussion is
expected to be far deeper, more challenging, and more critical about the advanced topic being studied than in
undergraduate coursework, the context in which these discussions are framed should remain academically
detached and appropriate. An element of graduate education – and particularly the application of advanced
content – may require a graduate student to demonstrate the ability to think and analyze advanced knowledge in
the discipline in a detached and clinical fashion.

This can be challenging when the topic under discussion relates to assumptions the student has never challenged
previously. Neither graduate students nor members of the Graduate Faculty should “personalize” these
discussions. A graduate student does not have the right to disrupt instruction in a learning activity. If a graduate
student believes he or she cannot continue to engage in the discussion with appropriate academic detachment,
she or he should disengage from the activity until the time that he or she believes he or she can appropriately
resume. Simply put, in graduate study, thinking should be disruptive – conduct should never be.

Outside the Traditional Classroom Environment. While graduate students and their faculty members may
have richer and less formal interactions outside of the classroom environment than those in undergraduate
programming (for example, having coffee together to discuss a particular aspect of a study the student wishes to
conduct or jointly working on research), it is important for both the faculty member and graduate student to
remember that the “formal” instructor/student relationship that undergirds these interactions, and act
consistently with that. If a graduate student believes that the faculty member’s interactions with him or her are
inappropriate, the graduate student should contact the Department Chair of her or his academic department, or
the appropriate University official.

5. Intellectual Property Issues. More than any other part of the University enterprise, graduate study may
result in the creation of ideas and thinking that are legally recognized and protected as intellectual property.
Consequently, graduate students should carefully monitor their conduct to ensure that they do not inadvertently
misappropriate the intellectual property of a member of the Graduate Faculty or another graduate student. The
Graduate College has prepared an overview of intellectual property issues
6. **Electronic Recording.** While graduate students may wish to electronically record a class session as a study aid, in graduate school, this requires a careful balancing of the interests of the student, her or his fellow students, and the graduate instructor. Consequently, a graduate student may not disseminate any electronically recorded class discussion unless given explicit permission by the graduate instructor in writing. Irrespective of whether the student disseminates it, a graduate student should ask permission of his or her graduate instructor before electronically recording the instructor’s lectures.

A University generates ideas, and ideas can become intellectual property irrespective of whether they are written in a book or paper. As a recognized authority in her or his academic discipline who has spent years studying, synthesizing, and expanding advanced knowledge in the academic discipline to which he or she has devoted his or her life’s work, a graduate instructor has a legally-recognized property interest in her or his thinking about that work, which may include the graduate instructor’s lectures. Kennesaw State University prohibits the misappropriation of intellectual property (which is a form of theft), which can result in discipline for a graduate student, up to and including dismissal from the University. If the graduate student is also a member of a profession with an applied code of ethics, it may additionally result in professional discipline, as well as subjecting the student to any civil legal remedies protecting intellectual property. Graduate students should recognize the rights of their fellow graduate students to engage in free exchange of ideas in their graduate coursework, asking questions or making observations that they might not make if they believed those observations could be publicly disseminated without their knowledge or permission.

If a student needs to electronically record a course as a result of a recognized disability or other exceptionality, the student should contact the University’s Disabled Student Support Services to develop an appropriate reasonable accommodation.

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

**CS 7125- Cloud Computing**
3 Class Hours 0 Laboratory Hours 3 Credit Hours

*Prerequisite: CS 5020*

In this course, we will discuss concepts including cloud computing, cloud computing architecture, infrastructure as a Service(IaaS), Platform-as-a-Service(PaaS), Software as a Service(SaaS), etc. We will study commercial products such as Amazon EC2. We will also discuss advanced topics such as Cloud simulation tools and open sourced software for Cloud environment.

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**

At the end of the course students will be able to:

1) Explain fundamental concepts and architecture of Cloud Computing
2) Explain the concepts of Infrastructure as a Service (IaaS) and create various instances on Amazon EC2
3) Explain the concepts of Platform-as-a-Service (PaaS) and work on projects with PaaS commercial products
4) Explain the concepts of Software as a Service (SaaS)
5) Explain virtualization
6) Explain Hadoop, HDFS, and MapReduce
7) use Amazon EC2 to create instances of various needs
8) use cloud simulation tools to simulate the activities in cloud environment
9) research and critique computing literature, and utilize it for proposing solutions

**COURSE CONTENT AND REQUIREMENTS/GRADING SCALE**

Course Schedule *(Tentative, subject to change)*:

<table>
<thead>
<tr>
<th>Week</th>
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**Course Policies:**

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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.

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**COURSE WITHDRAWAL**

See below for commentary on withdrawals from the 2018-2019 Graduate Catalog:

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, 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.

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**GRADE APPEALS AND STUDENT COMPLAINTS**

See below for commentary on Grade Appeals in the 2018-2019 Graduate Catalog:

Grade appeal will follow the level of the course. Students' rights to grade appeals are defined in the university catalog. A key element in the grade appeal procedure is the faculty member's responsibility to publish a specific grading policy for each of his/her classes. Specifically, the grade appeal procedure states: "Each faculty member must specify his/her grading policy, at the first of the semester. He/she may change his/her grading policy for cause after that time, but he/she must do so uniformly, with ample notification to students, if at all possible."

Note that failure to publish the grading policy would mean that a faculty member would have great difficulty in sustaining his/her assigned grade if a student appealed with anything but a frivolous or irresponsible basis for his/her charge. The grading policy should be quite specific and should be distributed to each class in written form. Some departments may also require faculty members to file grading policy statements in the departmental office. Because the student can submit a grade appeal to the Department Chair within 20 business days after the first day of classes of the next academic term after the academic term in which the final grade was awarded to the student (see Grade Appeals Procedure, section B), it is strongly recommended that instructors retain any student papers, tests, projects, or other materials not returned to the student for 70 days after the end of a semester or if an appeal is filed until the appeal is resolved. Refer to the following section for specific grade appeal procedures.

Students can find more details regarding the appeal process here:

http://catalog.kennesaw.edu/content.php?catoid=39&navoid=3087
**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

Information and links to Resources for Graduate Students:
http://graduate.kennesaw.edu/students/

Links to frequently used and helpful services:
http://www.kennesaw.edu/myksu/
Acknowledgement and Acceptance of Academic Honest Statement

CS 7125

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/webrref.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/oa/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://quarles.unbc.edu/lsc/rpplagia.html

CS 7125 Cloud Computing

Dr. Yong Shi

Course Name

Instructor Name

Print Name

Student ID Number

Signature

Date
CS 789: Topics in Advanced Computer Science (Advanced Big Data Analytics)
Fall 2019
Sections 1003

Instructor: Mingon Kang
Phone: 702-895-4884
Office: SEB 3214
Email: mingon.kang@unlv.edu
Office hours: Tu/We: 10:00 AM – 11:30 AM, 02:00 PM – 03:30 PM
Class website: http://mkang.faculty.unlv.edu/?menu=CS789

Catalog Description
This course covers algorithms and tools that are needed to build MapReduce Applications with Hadoop or Spark for processing large-scale datasets on clusters of commodity hardware. A wide range of analytics algorithms will be discussed in this course. Prerequisites: None. 3 credits.

Required Text:
Not mandatory, just a reference - Advanced Analytics with Spark: Patterns for Learning from Data at Scale (2nd Edition) by Sandy Ryza, Uri Laserson, Sean Owen, Josh wills, O'Reilly Media, 2017, ISBN#: 9781491972953. Homework assignments, lecture slides, and other materials will be posted on the course webpage or canvas.

Student Learning Outcomes (SLOs) Covered by This Course
At the end of the course students will be able to:

1. Explain MapReduce framework for big data analytics
2. Use Spark for big data analytics
3. Design and implement a wide range of analytics algorithms

Prerequisites
None
Grading
Grades will be based on following:

- Attendance: 5%
- Homework: 20%
- Midterm: 25%
- Final: 30%
- Project: 15%
- Presentation: 5%

Grades will be posted throughout the semester.
Grading is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt;90</td>
</tr>
<tr>
<td>A-</td>
<td>90-85</td>
</tr>
<tr>
<td>B+</td>
<td>85-80</td>
</tr>
<tr>
<td>B</td>
<td>80-75</td>
</tr>
<tr>
<td>B-</td>
<td>75-70</td>
</tr>
<tr>
<td>C+</td>
<td>70-65</td>
</tr>
<tr>
<td>C</td>
<td>65-60</td>
</tr>
<tr>
<td>C-</td>
<td>60-55</td>
</tr>
<tr>
<td>D</td>
<td>55-45</td>
</tr>
<tr>
<td>F</td>
<td>&lt;45</td>
</tr>
</tbody>
</table>

Graded assignments will be returned to you as soon as possible. It is your responsibility to check the grade summaries for posting errors. Any score issues must be identified to the instructor within three classes after grade releases. Scores are final after that.

Two tests will be given during the semester. Each test will be somewhat comprehensive, but will strongly emphasize material covered since the last test. Tests will be announced two or three class days in advance. There will be NO MAKEUP for missed tests.

Academic Misconduct
Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at:
http://studentconduct.unlv.edu/misconduct/policy.html

Department of Computer Science Academic Integrity Policy
Each student enrolled in a course offered by the Department of Computer Science is expected to do his/her own work when preparing written or programming assignments, as well as, examinations. He/She must adhere to the academic integrity policy provided by his/her instructor and the university. It is also each student's responsibility to notify the instructor if he/she becomes aware of any activities that would violate the academic integrity policy of the class.
CS 789 Academic Integrity Policy
Each student is required to do his/her own work on examinations, written and programming assignments and exercises without outside assistance except as noted below. It is also each student's responsibility to notify the instructor if he/she becomes aware of any activities that would violate the academic integrity policy of the class.

Consequences of violating the academic policy:
• an Alleged Academic Misconduct Report will be completed and a copy sent to the Office of Student Conduct
• 1st violation - student(s) will receive a grade of zero on the assignment/examination
• 2nd violation - a grade of F will be issued for the course; no further assignments/labs/exams can be completed for credit

Drop Policy
The last day to drop the course is Friday, November 1, 2019.

Copyright
The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: www.unlv.edu/provost/copyright.

Disability Resource Center (DRC)
The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor before or after class to discuss your accommodation needs.

Religious Holidays
Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or within the first 7 calendar days of the course for summer and modular courses, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=6&navoid=531.

Transparency in Learning and Teaching
The University encourages application of the transparency method of constructing assignments for
Incomplete Grades
The grade of I - Incomplete - can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor and the Department, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

UNLV Writing Center
One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/

UNLV Library Resources
Students may consult https://www.library.unlv.edu/consultation with a librarian on research needs. For this class, the subject librarian is Sue Wainscott. See: https://www.library.unlv.edu/contact/librarians_by_subject for more information. UNLV Libraries provides resources to support students’ access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at https://www.library.unlv.edu.

Rebelmail
By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu.

Final Examinations
The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: http://www.unlv.edu/registrar/calendars.
**Tentative Schedule:**
The tentative schedule is shown below.

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>CS 789 Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>26 Aug – 28 Aug</td>
<td>Discussion of course syllabus and policies, Course webpage; Introduction Machine Learning, Data Mining, and Big Data Analytics; Introduction to research</td>
</tr>
<tr>
<td>2</td>
<td>2 Sep - 4 Sep</td>
<td>Holyday at Sep 2nd; Introduction to Big Data</td>
</tr>
<tr>
<td>3</td>
<td>9 Sep – 11 Sep</td>
<td>Hadoop &amp; MapReduce Framework</td>
</tr>
<tr>
<td>4</td>
<td>16 Sep – 18 Sep</td>
<td>Apache Spark and NoSQL</td>
</tr>
<tr>
<td>5</td>
<td>23 Sep – 25 Sep</td>
<td>Decision trees</td>
</tr>
<tr>
<td>6</td>
<td>30 Sep – 2 Oct</td>
<td>Evaluation</td>
</tr>
<tr>
<td>7</td>
<td>7 Oct – 9 Oct</td>
<td>Linear regression</td>
</tr>
<tr>
<td>8</td>
<td>14 Oct – 16 Oct</td>
<td>Regularization on Linear regression</td>
</tr>
<tr>
<td>9</td>
<td>21 Oct – 23 Oct</td>
<td>Midterm</td>
</tr>
<tr>
<td>10</td>
<td>28 Oct – 30 Oct</td>
<td>Naïve Bayes Classifier</td>
</tr>
<tr>
<td>11</td>
<td>4 Nov – 6 Nov</td>
<td>Principal Component Analysis</td>
</tr>
<tr>
<td>12</td>
<td>11 Nov – 13 Nov</td>
<td>Holyday at Nov 11th; Fisher Linear Discriminant Analysis</td>
</tr>
<tr>
<td>13</td>
<td>18 Nov – 20 Nov</td>
<td>K-means Clustering</td>
</tr>
<tr>
<td>14</td>
<td>25 Nov – 27 Nov</td>
<td>Project Presentation</td>
</tr>
<tr>
<td>15</td>
<td>2 Dec – 4 Dec</td>
<td>Project Presentation</td>
</tr>
<tr>
<td>16</td>
<td>9 Dec – 13 Dec</td>
<td>Final</td>
</tr>
</tbody>
</table>