

IT 4673 Virtual IT Systems Fall 2022 Section W01

(See the separate schedule for assignment due dates and recommended activities)

Contact Information

Instructor:

Dr. Li 470-578-4481, Atrium – J 378A, lli13@kennesaw.edu

Phone: IT Department: 470-578-3803

Note: Best method of communication is via discussion posts for questions that others may have an interest in, or by email if personal or confidential. I will communicate with the class via the course D2L discussion forum.

I will do my best to respond to emails and discussion posts within 2 business days.

Official communications should be conducted between KSU email accounts in accordance with KSU Policy.

1. Please use your D2L email account (yourlogin@students.kennesaw.edu) to contact me;
2. Use D2L Discussion Forums to interact with your classmates.
3. Sensitive information (e.g., grades) can only be sent to D2L or KSU email account
4. The subject line should have course number “IT 4673”
5. I will respond to your email asap (within 48 hours), unless I am out of town having limited internet availability, when it may be delayed. (with possible delays during weekends & school holidays/breaks)

Office Hours: *Virtual and by Email* - face to face appointments are scheduled only after all other attempts to resolve the issue have been exhausted.

Advising: All advising questions should be directed to the [BSIT/BASIT Advising office](#).

Description

This course explores the design, implementation and use of virtualization, including desktop and server aspects such as deployment, clustering, storage and security. A high-level overview of the various certifications available will be discussed. A project will be completed as part of the course.

Credit Hours: 3-0-3

Prerequisites: (IT 3423 or CS 3502) AND IT 4323 AND (CSE 3153 OR CS 3410)

Course Objectives

Students who complete this course successfully will be able to

- Identify important aspects of virtual systems, their architecture and discuss how they are used within larger, networked computing systems
- Distinguish the unique characteristics, constraints, and opportunities of implementing virtual platforms into information technology systems.
- Apply knowledge and skills for virtualization design and implementation in IT

Class Design

This course is 100% online.

This section (section W01) is delivered through Brightspace D2L. You are expected to read all the course materials in the module, including the videos, articles, slides. Labs, homework assignments, lecture slides, and other materials will be posted on D2L.

Materials

Required Textbook: NONE. This course is supported by ALG without any textbook required to reduce the burden of students.

Recommended Textbook:

Virtualization Essentials, Matthew Portnoy, Wiley 2nd Edition ISBN:978-1119267720
Mastering VMware vSphere 6 by Nick Marshall ISBN: 978-1118925157

Grading

Grading Policy

Assignment (7)	42%
Discussions (7)	21%
Midterm Exam	14%
Final Exam	14%
Final Project	9%
Total	100%

A: [90, 100]; B: [80, 89]; C: [70, 79]; D: [60, 69]; F: [0, 59];

- All assignments will be posted on D2L: <https://kennesaw.view.usg.edu>
- All assignments must be submitted through D2L by the deadline.
- Please double-check your submission; whatever your submission by deadline will be graded.
- No late submission will be accepted; late submission means no submission.
- We do not accommodate any makeup for quiz, midterm, and final exams.

General Expectations for Coursework in CCSE IT Programs

This course syllabus *is a general "plan" for the course and not a contract* - please know that the course instructor is permitted to make updates to it. If you have questions regarding this, please contact the Chair of the IT Department.

1. *Intellectual Property Issues.* You may not misappropriate the intellectual property of a member of the Faculty, another student, an online resource or other source even if you

paid for them to do your work.

Ideas and course content are the intellectual property of the author irrespective of whether they are written in a book, course online content, course lectures or a paper. Kennesaw State University prohibits the misappropriation of intellectual property (which is a form of theft), which can result in discipline for a student, up to and including dismissal from the University. If the 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.

2. Copyright Law. It is the responsibility of KSU faculty and students to respect the rights of copyright holders and comply with copyright law. Students, faculty, and staff must comply with limited exclusive rights of copyright holders as set forth in 17 U.S.C. § 106, the application of the four fair use factors in 17 U.S.C. § 107, and other copyright exceptions.
3. Electronic Recording. You may not record or disseminate any electronically recorded class discussion unless given explicit permission by the instructor in writing. 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.

http://www.kennesaw.edu/stu_dev/dsss/prospect.shtml

Course Outline

Course Organization

This course will be organized as weekly units. Each week starts on Monday and ends on Sunday. All homework, quizzes, and lab assignments belonging to a particular weekly unit are due on Sunday of that week at 11:59PM.

Important Dates:

Aug 17: First day of class

Sept 7: Labor holiday

October 7: Last day to withdraw without academic penalty

November 23-December 29: Fall break

Dec 7: Last day of class

Course Schedule

The course schedule is tentative and is subject to change. Please use D2L course calendar as accurate due dates.

[Can be week by week for day by day. Should highlight content covered, assignments, and exams. Academic calendar can be found at: <https://registrar.kennesaw.edu/academic-calendars/index.php>]

Week	Date	Course Contents	Notes
01	8/17 - 8/19	Overview of IT system	
02	8/24 - 8/26	Intro to virtualization	
03	8/31 - 9/2	Design for virtual IT system	

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Week	Date	Course Contents	Notes
04	9/7 - 9/9	Design for IT system cont.	
05	9/14 - 9/16	Implementation of IT system	
06	9/21 - 9/23	System design – desktop	
07	9/28 - 9/30	System design – server client	
08	10/5 - 10/7	Mid Term	
09	10/12 - 10/14	Virtualization and deployment	
10	10/19 - 10/21	Deployment	
11	10/26 - 10/28	Clustering	
12	11/2 - 11/4	Storage management	
13	11/9 - 11/11	Security of cloud IT system	
14	11/16 - 11/18	Security of cloud IT system	
15	11/23 - 11/25	<i>Project demo</i>	
16	11/30 - 12/2	Review	
17	12/7 - 12/9	<i>Final Exam</i>	

Important dates:

- Add/Drop ends: Aug 15 11:45pm
- Last Day to Withdraw Without Academic Penalty: Oct 15 11:45 p.m.
- Last Day of Class: Dec 3.

Tips for Effective Online Learning

For an online class, students can really enjoy the benefits of learning at your own pace and in whatever environment that you choose. Below are some tips for effective online learning:

Check the D2L course website regularly. Always be aware of the current status of the course. It might be helpful to subscribe to the RSS feeds within the News Tool, sign up for text message alerts, or subscribe to your posts within the Discussion Tool. By taking advantage of the tools within the environment and the posted learning material, you can maintain an enhanced learning experience.

Work closely with your instructor. If you have any questions, please contact me immediately. The best way to contact me is via email.

Begin your work early. If you can start a task early, don't start late. Assuming you spend the same amount of time completing the task, starting later will be much more stressful than starting early. Never wait until the last minute to begin an assignment! You'll have no turnaround time if you need help or something happens.

What is Plagiarism?

Plagiarism is defined as the practice of taking someone else's work or ideas and passing them off as one's own. If you are unaware or uncertain on how to properly cite a particular source, please do not neglect to add the citation—that is considered plagiarism. Cooperation and exchange of ideas with other students are encouraged; however, you are responsible for your own work. It is OK to talk with someone about ways to approach an assignment or discussing a particular problem that you are having. It is NOT OK to take someone else's assignment and modifying it or examining someone's solution in detail.

If you have questions on how to cite your work, please contact me immediately! For more information, please refer to the "Plagiarism Policy" under the Policies section of this syllabus.

Home and Lab Assignments and Discussions

All Assignments should be submitted to D2L at <https://kennesaw.view.usg.edu/>. If for some reason you have not been able to submit assignment by deadline (due to unavoidable circumstance such as downtime of D2L website system, power failure, etc.), then you have 24 hours to submit your work with no penalty (quizzes cannot be submitted later). No reports will be accepted after that.

Attendance Policy

There is no in-class attendance, but students are required to access to D2L course each week to confirm their attendance. If you fail to log into at least one during a week or fail to complete course activities within a two-week period at any time during the semester, the instructor will consider your lack of activity as an indication of your intention not to continue in the course. Failure to participate without officially withdrawing from the course will result in a grade of F. Be sure to submit all assigned work on time. If you are not able to participate in assigned activities online, contact your instructor immediately.

Email Communication and Announcements

To communicate with you through e-mail I will use D2L e-mail and I will try my best to answer your email in 24-48 hours (exception when I am out of town for attending conference). You must periodically check news section of D2L course web page, D2L account, and KSU e-mail account for messages to ensure that messages can be received timely. Be sure that your mailbox is not full. Any changes of dates and announcements will be publicized on news notice board and/or email.

Instructor turn-around time on student submitted materials/assessments:

You submitted materials will be evaluated within 7 days of submission. In most cases, you will know your grade immediately upon completion of an assessment item such as quiz. I will post your grade for specific items in D2L gradebook and notify you on any

error/correction in a timely manner. Please also check announcement frequently for any updates.

Course Policies

CRITICAL POLICIES:

- I. LATE WORK WILL NOT BE ACCEPTED
- II. DO NOT EMAIL ANY ASSIGNMENT TO THE INSTRUCTOR
- III. ALL ASSIGNMENTS MUST BE UPLOADED TO D2L, IF D2L WON'T ACCEPT THE ASSIGNMENT, NEITHER WILL THE INSTRUCTOR
- IV. DO NOT USE KSU EMAIL, ONLY D2L EMAIL, WHEN EMAILING THE INSTRUCTOR
- V. POST CLASS QUESTIONS TO D2L DISCUSSION BOARDS, ONLY EMAIL PERSONAL OR CONFIDENTIAL QUESTIONS TO THE INSTRUCTOR

Violations of these Critical Policies MAY negatively affect your overall course grade. Read and follow them carefully!

Other Course Policies:

Resources:

- [KSU Center for InfoSec Education Resource Page](#)
- [The Computer Security Resource Center at the National Institute of Standards and Technology](#)
- [The SANS Institute](#) (System and Network Security), [Information Security Magazine](#)
- [Carnegie Mellon SEI CERT/CC](#) at <http://www.cert.org>
- [ACM Special Interest Group on Security, Audit and Control](#)

Accessibility Compliance Statements: Where available, ADA policies are provided. Where not specified or available, I will gladly work with the Department of Student Disability Services to provide reasonable accommodation for students with documented issues

- [University System of Georgia: Higher Education, the American s with Disabilities Act and Section 508.](#)
- [USG Web Accessibility](#)
- [KSU Accessibility Policy](#)
- [Microsoft accessibility Statement](#) (including Office)
- [Desire 2 Learn Accessibility Statement](#) (D2L):
- [Kaltura](#) (a.k.a. MediaSpace - KSU's video server platform)
- [Adobe Acrobat Accessibility Statement](#) (PDF Reader)
- Accessibility Policies for Clearwater have been requested and will be added once available.

Privacy Compliance Statements: Where available, privacy policies are provided. Where not specified or available, I will gladly work with the student and appropriate university agency to ensure appropriate protections.

- [USG Web Privacy Policy](#)
- [Microsoft Privacy Policy](#)
- [Desire 2 Learn Privacy Policy](#)
- Kaltura Privacy Policy (a.k.a. MediaSpace - KSU's video server platform): <https://corp.kaltura.com/privacy-policy>
- Adobe Acrobat (PDF Reader): <http://www.adobe.com/privacy.html> Compliance Shield: <https://informationshield.com/privacy-policy>
- Clearwater Compliance: <https://clearwatercompliance.com/privacy-policy/>

Additional supplemental resources will be provided by the instructor.

Schedule:

Refer to the Schedule in D2L for the course calendar and assignment key dates.

Online Learning:

Student attending this class should realize the nature of the course they are enrolled in. This is a completely online class. There will be NO face-to-face interactions expected of between the students and the instructor. Students are always encouraged to interact with the instructor via discussion posts for topics of interest to the entire class or email for items that are personal or confidential. Students will also interact with each other virtually, through online discussions in D2L, and through assignments. In order to ensure the student does not fall behind it is STRONGLY encouraged that students keep to the schedule suggested in this syllabus in the Schedule section below. Some classes have periodic reporting requirements, while others do not. If this class does not, the student should make a concerted effort to maintain currency and not wait until the last minute to complete assignments. Every reasonable effort is being made to facilitate quality learning in this online format.

In the absence of face-to-face direct interaction, Student - Instructor interaction will be enhanced by a number of mechanisms:

- Students are listening to recorded lectures by the instructor.
- Students can listen to recorded course introductions by the instructor
- Students can listen to a recorded self-introduction by the instructor - under Course Overview and Introductions - About Dr. Whitman.
- Students should post actual photos of themselves into D2L (not avatar photos) to allow facial recognition of peers and by faculty members.

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- Students and the instructor will interact by email as needed - feel free to email - I will respond as quickly as possible - typically next business day, sometime within a few hours.
- The instructor will interact with students in discussion postings as needed as student post questions or concerns, the instructor will respond and interact as appropriate.
- The instructor will grade assignment inserting written comments as appropriate.
- If (and only if) the instructor is unable to answer student questions by email, students may schedule physical appointments. However, this should only be done when other communications fail to resolve the student's issue. Pleading one's case in public does not improve the chances the instructor will change his mind on an issue.
- Student to Student interaction is highly encouraged and will be accomplished through the discussion postings, email, and ad-hoc chat interactions.
- Students should post general class questions in the appropriate discussion area of D2L, and only email personal/confidential questions to the instructor.

KSU has a variety of support services to facilitate student learning and engagement. These resources will include descriptions of student services and resources, including how learners can use them to succeed and how learners can obtain them:

- [Student Success Services department](#)
- [Department of Student Engagement](#)
- [Department of Student Life](#)
- [Writing center](#)
- [KSU Library](#)
- [Distance Learning Center](#)
- [UITS Student Training \(OwlTrain\)](#)
- [College Undergraduate Advising Services](#)
- [Graduate University Student Services](#)
- [Undergraduate Student Government](#)
- [Graduate Student Association](#)

Technology Expectations: Students enrolled in this class are expected to have a highly functional level of technology literacy. You are after all enrolled in a technology course. Students should be able to upload, download, and modify files, including office documents, spreadsheets, PDFs, and presentation technologies as presented in this class. You may be expected to create a computer-based presentation (slides plus your recorded voice) during this course. While free software is suggested, you may use alternate applications. You are expected to become VERY familiar with Desire2Learn (D2L), especially the posting on and reading the discussion forums, and uploading assignments.

Technology support for KSU systems including D2L is available by emailing studenthelpdesk@kennesaw.edu or calling 770-499-3555. Please do not email

D2L problems to your instructor. There are periods of scheduled maintenance for this system, as well as the possibility of periodic 'unscheduled outages'. It is up to the student to plan their schedules to provide sufficient time to deal with these outages.

The preferred mode of communications with the instructor is via discussion postings in D2L for all topics suitable for public discussion (anything you would typically feel comfortable raising your hand and asking in a physical class) and email for personal or confidential issues. While other email access may be available, only emails from your kennesaw.edu accounts, with the course number in the subject are guaranteed responses. The instructor will endeavor to respond to email questions within 2 business days, sooner if at all possible.

Minimum Technology Requirements:

In order to complete this course, the student must have access to the following technologies:

- A computing device - desktop, laptop, tablet or smart phone capable of:
 - accessing Internet-based content
 - displaying recorded video
 - playing recorded audio - with speakers or headphones
 - recording audio - with microphone or headset
 - capturing your image and actions during exams - with a web camera (see RLDB & Respondus Monitor)
 - Internet access of sufficient speed to download/display recorded lectures
 - Free or trial software capable of creating slide + audio presentations
 - Standard office productivity applications similar to MS Word, Excel & PowerPoint, and Adobe Reader
 - A printer (for printing course calendar, etc.)
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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 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 non-exam class assignments and lab exercises; however, the provisions of the STUDENT CONDUCT REGULATIONS, II. Academic Honesty, KSU Undergraduate Catalog will be strictly enforced in this class.

Students caught violating the KSU policy on Academic Integrity in this courses will be subject to the following:

First the instructor will query the KSU SCAI office to determine if the student has a prior SCAI violation. If the student does, the entire case will automatically be deferred to the SCAI office for processing.

If not, the student will then be notified by KSU email as to the potential or alleged violations of KSU SCAI policy. If the instructor feels the evidence is sufficient, they will also include an informal penalty. Students have 2 business days (48 hours) to respond to the instructor, providing any information or justification for their actions. They will also indicate whether they a) acknowledge their responsibility and fault in the allegations and accept the offered informal penalty or b) refute any allegations, or deny responsibility, and request a formal hearing by the KSU SCAI office. Failure to respond within this period will be viewed as a default admission of guilt of any alleged violations, and the case referred to SCAI for a hearing.

For a first offense (in this course) a 0 (zero) on the assignment in question, and up to an "F" for the course, at the discretion of the instructor.

For a second offence (in this course) an "F" will be assigned for the course, at the discretion of the instructor.

All documented Academic Integrity violations WILL BE reported to the KSU Student Conduct and Academic Integrity Office for filing.

Students accepting the informal resolution MUST remain in the course for the duration of the term. Students charged with SCAI violations who subsequently drop the course will automatically be referred to the SCAI office, without further discussion, even if the student has accepted the informal resolution. Any student referred to the SCAI office for formal review will be subject to SCAI hearings and possibly a mandatory 1-semester suspension on 1st offense or 1-year suspension on 2nd offense.

All assignments, exams, projects, papers, etc., must be the original work of the student. Original work may include the thoughts and words of others, but such thoughts or words must be identified using quotation marks or indentation and must properly identify the source. At all times, students are expected to comply with the department's accepted citation practice and policy. The University and its faculty are committed to maintaining

high standards of academic integrity. Student work will be routinely submitted to plagiarism detection tools (such as the TurnItIn module in D2L) for review.

Work is not original when it has been submitted previously by the author or by anyone else for academic credit. Work is not original when it has been copied or partially copied from any other source, including another student, unless such copying is acknowledged by the person submitting the work for credit at the time the work is being submitted, or unless copying, sharing, or joint authorship is an express part of the assignment. Exams and tests are original work when no unauthorized aid is given, received, or used before or during the course of the examination, reexamination, or remediation.

In accordance with KSU Policy:

“Engaging in any behavior which a professor prohibits as academic misconduct in the syllabus or in class discussion is cheating. When direct quotations are used, they should be indicated, and when the ideas, theories, data, figures, graphs, programs, electronic based information or illustrations of someone other than the student are incorporated into a paper or used in a project, they should be duly acknowledged. No student may submit the same, or substantially the same, paper or other assignment for credit in more than one class without the prior permission of the current professor(s).”

This request **MUST** be in writing (KSU email is acceptable). This also includes work performed in a previous semester for the same course (e.g. retake of an IS/ISA class).

See the complete [SCAI policy](#), from which this information was copied and/or adapted.

Interaction Expectations and Response Requirements:

Students are expected to monitor the class discussion forums as the primary means of communication with the instructor. It is expected that students will visit these forums at least twice weekly, and more frequently in the summer. It is highly recommended for students to configure their D2L sessions to notify them by email when a new message is posted. This is accomplished by forwarding D2L mail to an external (preferably KSU) email address, and "subscribing" to the entire forum (use the pull down menu beside the forum title).

It is strongly encouraged that students engage their peers through the forums and through direct email. Increased student-to-student interaction has been shown to enhance learning. As per the course policies, students are expected to post questions of a non-personal/confidential nature on the D2L forum site, and email the instructor with personal/confidential questions as needed. The instructor strongly encourages students to ask questions when faced with challenges, but only after the student has attempted to resolve the issue on their own. See the D2L News posting on "Method behind my Madness" for additional information on the expectation of problem solving and critical thinking of students in academic work. The instructor **WILL** answer your

questions to the best of their ability, but EXPECTS that you will have made a reasonable effort to find the answer on your own, before contacting them.

Students are expected to respond to emails sent to their KSU email accounts within 2 business days, the same response standard students should expect when emailing the instructor.

The instructor is expected to grade and respond to exams within 1 week, and other assignments within 2 weeks, excluding holidays.

See the section on SCAI for communications requirements when a SCAI violation is suspected.

End of Term Instructor Assessment:

At the end of the term, students will receive an email inviting you to complete a survey of your perception of the online learning experience. This survey is anonymous and students are strongly encouraged to complete it. The instructor will post a notice in the discussion area when the survey is available.

Diversity and Disability Statement:

All courses offered by the Information Systems 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.

NOTE: IF YOU HAVE AN ADA ISSUE THAT RESULTS IN DIFFICULTY IN VIEWING OR LISTENING TO MATERIAL IN THIS COURSE, PLEASE NOTIFY YOUR INSTRUCTOR IMMEDIATELY. ALTERNATE DELIVERY MECHANISMS CAN BE ARRANGED IF COORDINATED THROUGH THE STUDENT DISABILITY SERVICES OFFICE. Phone: (470) 578-2666 Email: sds@kennesaw.edu.

Withdrawal Policy:

The last day to withdraw without academic penalty is listed in the schedule of activities. Ceasing to attend class or oral or email notice thereof DOES NOT constitute official withdrawal from the course. Students who simply stop attending classes 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.

Enrollment Policy:

Only those students who are enrolled in the class may attend lectures, receive assignments, take quizzes and exams, and receive a grade in the class. If a student is

administratively withdrawn from this course, they will not be permitted to attend class nor will they receive any grade for the class.

Email Policy:

The instructor only guarantees replies to emails received from your Kennesaw email account (netid@students.kennesaw.edu). Emails sent from other email domains may not reach the instructor's mailbox. In order to ensure receipt/responses to your email be sure that you communicate with the instructor via your Kennesaw email account or via D2L, and include the course number in the subject.

Acquiring Final Grades:

The final grades for this course will be posted to the student's permanent record using the KSU OwlExpress System. Students may acquire their final grades by accessing their account online through Owl Express. All grades reflected are those submitted by the faculty members at the time of posting. Students needing verification of grades or enrollment should request either an official transcript or enrollment verification through the Office of the Registrar.

Syllabus Modification

The instructor reserves the right to modify the syllabus or course schedule at any time during the semester, in order to best meet the objectives of the course. Any changes in assignments or due dates will be announced in a posting in the D2L Discussion area.