

Course Syllabus

Version 1 – May 20th, 2021

Course Information

<i>Course Prefix, Number, Section</i>	ITSS 4370.0U1
<i>Course Title</i>	Information Technology Infrastructure Management

<i>Term</i>	Summer 2021
<i>Days & Times (Remote-MS Teams)</i>	Tuesday 1:00PM-5:00PM

Professor Contact Information

<i>Professor</i>	Tony Fuller
<i>Email Address</i>	Tony.Fuller@utdallas.edu
<i>Office Location</i>	MS Teams (JSOM 3.604 (Office temporarily closed))
<i>Office Hours</i>	By appointment
<i>Teaching Assistant</i>	Dicle Yagmur Ozdemir yagmur@utdallas.edu

Course Pre-requisites, Co-requisites, and/or Other Restrictions

ITSS 3300 and (MATH 1326 or MATH 2414 or MATH 2419) and (MATH 2333 or OPRE 3333 or MATH 2418 or MATH 2415 or CS 2305).

Course Description

ITSS 4370 Information Technology Infrastructure Management of the information technology within an organization is a critical activity. Students will be introduced to key issues relating to managing IT resources and IT projects. Topics include IT infrastructure, IT investment, management of IT, and planning and management of projects related to IT infrastructure.

Student Learning Objectives/Outcomes

1. Explain current trends in information and communication technology (ICT) infrastructure and their impacts on ICT infrastructure management.
2. Analyze current ICT infrastructure plans and practice; and assess their degree of alignment with organization business and strategic goals (Describe how effective IT Infrastructure Management requires strategic planning and alignment from both the IT and business perspectives in an organization).
3. Demonstrate an understanding of the need for achievement of interoperability in enterprise-wide ICT infrastructures.
4. Describe the business value and processes of ICT services in an organization and apply that knowledge and skill to a workplace scenario.

Required Textbooks and Materials

Required Texts

Scott D. Lowe, James Green and David Davis (2016). *Building a Modern Data Center: Principles and Strategies of Design*.

Available at: <http://www.actualtechmedia.com/wp-content/uploads/2016/05/Building-a-Modern-Data-Center-ebook.pdf>

- Notes: **LGD text is available online in eLearning**

With thanks for Atlantis for permission to distribute to students.

Schiesser, Rich (2010). *IT systems management* (2nd ed.). Upper Saddle River, N.J.: Prentice Hall. ISBN or ISSN: ISBN: 9780137025060 (hardcover: alk. paper); ISBN: 0137025068 (hardcover: alk. paper); ISBN: 9780136123521; ISBN: 013612352X

- Notes: This text is available online in Safari through the Library. NO NEED TO PURCHASE THIS BOOK.

Gilani, Zafar.; Salam, Abdul.; Ul Haq, Salman. (2015). *Deploying and managing a cloud infrastructure: real world skills for the CompTIA Cloud+ Certification and beyond*. Indianapolis: Wiley-Sybex. 978-1-118-87510-0

- Notes: This text is available online in Safari through the Library. NO NEED TO PURCHASE THIS BOOK.

Cases (Link will be provide in eLearning):

1. Derrick Neufeld & Liliana Lopez Jimenez. 1-888-JUNK-VAN, Richard Ivey School of Business, University of Western Ontario, W11145-PDF-ENG
2. Mark Jeffery, Joseph F. Norton & Derek Yung. MDCM, Inc. (B): Strategic IT Portfolio Management, 2006, Kellogg School of Management KEL172-PDF-ENG
3. Robert D. Austin & Jeremy C. Short. IPREMIER (A): Denial of Service Attack (Graphic Novel Version), 2009, Harvard Business School 609092-PDF-ENG

Required Materials

Software and Web Sites to be used:

- Required: Microsoft Word (Office 365 provided to UTD students at no additional cost).
- Optional: Microsoft Visio (or other charting software). Lucid Chart (free download)

Suggested Course Materials

Suggested Readings/Texts

I will post a variety of other resources as readings or supplemental references in eLearning.

Suggested Materials

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the [Getting Started with eLearning](#) webpage.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account the eLearning website.

Please see the course access and navigation section of the [Getting Started with eLearning](#) webpage for more information.

To become familiar with the eLearning tool, please see the [Student eLearning Tutorials](#) webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilized online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the [Student eLearning Tutorials](#) webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student Accessibility, and many other. Please see the eLearning Current Students webpage for more information.

Course Modality

Instructional Mode

This course will be taught in a remote/virtual instructional mode.

For more information on instructional modes, visit <https://www.utdallas.edu/fall-2020/spring-2021-registration-information/>.

eLearning and Course Platforms

This course can be accessed using your UT Dallas NetID account on the eLearning website. Please see the course access and navigation section of the Getting Started with eLearning webpage for more information. To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage.

Expectations

This course is divided into multiple Modules, which you can find in eLearning. We will go through these modules in order. Many modules have discussions or written assignments. There will be a take home midterm and final exam that will be conducted using eLearning and Honorlock.

Many of you will attend classes as scheduled. Some of you will have personal or professional commitments that prevent you from doing that or choose to attend asynchronously. In those cases, a recording of the class will be posted in each Module. If you are missing a class or attending asynchronously, it is your responsibility to notify the instructor.

The course will utilize the following platforms:

- Announcements, written lecture materials, assignments and grades will be posted in the course's eLearning site. It is the students' responsibility to regularly check their UTD email accounts and the eLearning page for this course.
- Recorded (and annotated) lectures and other communications will be available on Microsoft Stream

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student Accessibility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student Accessibility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Materials

The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course; however, these materials are

for registered students' use only. Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student Accessibility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Active links to Blackboard Collaborate, Teams and Stream will be available in the eLearning web site.

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance: (1-866-588-3192), email request service, and an online chat service.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage; or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Assignments & Academic Calendar

Topics, Reading Assignments, Due Dates, Exam Dates

WEEK/ DATES	TOPIC/ LECTURE	READING	ASSESSMENT/ ACTIVITY	DUE DATE
1 May 25	Lesson 1 - Course Introduction	Course Syllabus		
1 May 25	Lesson 2 – Trends in IT Management	LGD – Chapter 1	Assignment 1 – Skills Assessment	Monday May 31 st 11:59 PM
1 May 25	Review Assignments			
2 Jun 1	Lesson 3 – Data Centers	LGD – Chapter 2, 3, 11 Schiesser – Chapter 18		

2 Jun 1	Lesson 4 – IT Capability Maturity Framework (IT-CMF)	Schiesser – Chapter 3		
2 Jun 1	Lesson 5 – Managing IT Like a Business	LGD– Chapter 4 Schiesser – Chapter 4, 15		
2 Jun 1	Lesson 6 – Managing the IT Budget & Managing IT for Business Value			
3 Jun 8	Lesson 7 – Managing the IT Capability	LGD – Chapter 5 Schiesser – Chapter 3	Assignment 2 – Portfolio Prioritization	Monday Jun 14 th 11:59 PM
3 Jun 8	Lesson 8 – Process Framework Overview	Chapters 2 and 3, IT Governance Using COBIT and VAL IT	Assignment #3 – Process Frameworks	Monday Jun 21 st 11:59 PM
3 Jun 8	Lesson 9 – ITIL – IT Systems Management Governance	Schiesser – Chapter 6		
4 Jun 15	Exam 1	Exam 1 – Jun 15 – see schedule posted in eLearning		
6 Jun 22	Lesson 10 – Cloud Concepts and Models	LGD – Chapter 6 Schiesser – Chapter 22 Salam – Chapter 1, 10, 12	Assignment 4 – Cloud Data Management	Monday Jun 28 th 11:59 PM
6 Jun 29	Lesson 11 – Virtualization	LGD – Chapter 6, 7, 8 Salam – Chapter 2, 7, 14		
7 Jul 6	Lesson 12 – Infrastructure	LGD – Chapter 8 Schiesser - Chapter 12, 13 Salam – Chapter 7, 8, 9	Assignment 5 – Big Box Company	Monday Jul 12 th 11:59 PM
7 Jul 6	Lesson 13 – Resource Management	LGD – Chapter 9 Salam – Chapter 4, 8, 9, 10		

8 Jul 13	Lesson 15 – Systems Management: Change Management, Production Acceptance, Agile and DEVOPS	LGD – Chapter 10 Schiesser – Chapter 9, 10, 14		
8 Jul 13	Lesson 14 – Systems Management: Availability & Reliability	Salam – chapter 4 Schiesser – Chapter 8	Assignment 6 – Case: 1-888-JUNK-VAN	Monday Jul 19 th 11:59 PM
9 Jul 20	Lesson 15 – Security, Availability, Privacy and Compliance	Schiesser – Chapter 7, 16 Salam – Chapter 11		
10 Jul 27	Lesson 16 – Business Continuity/Disaster Recovery	Schiesser – Chapter 17 Salam – Chapter 12	Assignment 7 – (Group) iPremier (A): Denial of Service Attack Consulting Recommendations	Friday Jul 30 th 11:59 PM
FINAL Aug 3	Final Exam	FINAL EXAM – Comprehensive, but emphasizing the chapters & material covered since Exam 1		

Grading Policy

Grading criteria: This class assumes the student is working in a business environment. It is understood that our business environment has changed in numerous ways in recent months, such as telecommuting, working from home, and social distancing. Considerable attention (and grading premium) will be given to following directions (both written and in class). All assignments will be graded based upon the appropriateness of its presentation, as well as on its content. The grade components for the course are listed in the table below.

Grade Components

The grade components for the course are listed in the table below.

Component	Type	Maximum
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		Score
Assignment 1 – Skills Assessment	Individual	50
Assignment 2 – Portfolio Prioritization	Group	100
Assignment 3 – Process Framework	Individual	100
Assignment 4 – Cloud Data Management	Individual	100
Assignment 5 – Big Box Company	Individual	100
Assignment 6 – Junk Van	Individual	150
Assignment 7 – iPremier	Group	250
Exams:		
Exam 1	Individual	250
Exam 2	Individual	250
Engagement / Class Participation / Discussion Boards	Individual	150
Total		1500

Course Grade: The course grade will be determined using the scoring in the table below.

A+ ≥ 96.7%	B+ ≥ 86.7%	C+ ≥ 76.7%	D+ ≥ 66.7%
A ≥ 93.0%	B ≥ 83%	C ≥ 73%	D ≥ 63%
A- ≥ 89.5%	B- ≥ 79.5%	C- ≥ 69.5%	D- ≥ 60.0%
			F < 60.0%

Grade changes: Grades can't be changed just because of student preference. Students must wait 24 hours after receiving a grade before discussing it with the professor, and then you have 7 days to question it. After seven days, grades stand as they were posted, and then grades will only be changed if the professor has made a mistake.

Course Policies

Email: The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. All official student email correspondence will be sent only to a student's UT Dallas email address and your instructor and the UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the university to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information.

Please include ITSS4370 and descriptive words in your message's subject line. The instructor will respond to all student inquiries (emails, voice messages, etc.) within 48 hours (excluding holidays and weekends). It is the students' responsibility to regularly check their UT Dallas email accounts.

eLearning: eLearning will be used extensively throughout the course. Please make sure you are able to access and use eLearning effectively. For more details, please visit the eLearning tutorials webpage for video demonstrations on numerous tools in eLearning.

eLearning will be used for class content (e.g., class slides and assignment descriptions) and the recording of grades. Slides will be posted in eLearning class is held. Class announcements (e.g., change in assignment dates) will be posted in eLearning.

Assignments: All assignments, unless specifically marked as a Group Assignment, and all exams are to be individual efforts. You are not to collaborate with other students or to discuss individual assignments with other students prior to submission. Copying of homework, project assignments, or exams, in whole or in part, from other students or from assignments from previous semesters will be considered to be an act of academic dishonesty. Copying of materials for use in homework, programming assignments, or exams, in whole or in part and without proper use of citations, will be considered to be an act of academic dishonesty.

All assignments will be submitted through eLearning. Submission of assignments by email is not acceptable unless prior permission of instructor is obtained. Students are expected to submit all assignments on time. Assignments are due on the day and time noted in eLearning.

Late Work: Students are required to submit all assignments on time by the deadline specified in eLearning. Assignments submitted after the due date will be considered late. Without exception, late work (or work that is not submitted per the instructions) will result in a reduced score or a score of zero (0).

You may not submit late or incomplete work unless prior arrangements have been made with the instructor. If you find that an assignment may be late, please inform the instructor in advance of when it is due and negotiate any accommodations with the instructor. I will work with you if there are legitimate issues that arise.

Group Work: This course will have group assignments where you will have to work as part of an assigned group to complete the assignment. Peer evaluations at the end of each group project will be collected to make grading more equitable. Students will be allowed to quit a group or fire a member from the group with the knowledge that the student must find a new group. If this situation arises, the instructor must be notified before the assignment is due; preferably, as soon as possible.

Exams: The Exam schedule will be announced in class and posted in eLearning. Exams will be completed in eLearning using the Honorlock proctoring system.

Make-up exams

No make-up exams will be given, without an emergency situation or advance coordination with the professor. If you have questions, please ask.

Honorlock Proctoring System

NOTICE: Enrollment in this course requires the use of Honorlock for online exam proctoring. Your webcam is recording you during your test, but no one is watching you in real time. Honorlock uses technology to monitor your session, and, if it senses that something is wrong, it will trigger a pop in by the live proctor. The proctor will assess the situation, help you get back on track, and document this for your instructor. After your test, exam proctors may review the exam session to look for any potential violations, and the recording will also be sent to your instructor along with any notes from our proctors. Your instructor or the teaching assistant will review these recordings.

To successfully take an exam, you must have a web camera with microphone, a laptop or desk top computer (not tables/phones), Chrome browser, a reliable internet connection and your photo ID. You will be prompted to install the Honorlock Chrome Extension (which you can remove after you finish the test). You will then access the exam within your eLearning course and go through the authentication process. Your microphone and web camera will be used by Honorlock to monitor you throughout your test or assessment. **YOUR ACTIVITIES ARE RECORDED WHILE YOU ARE LOGGED INTO OR TAKING YOUR ASSESSMENT(S). THE RECORDINGS SERVE AS A PROCTOR AND WILL BE REVIEWED AND USED IN AN EFFORT TO MAINTAIN ACADEMIC INTEGRITY.**

How is student data secured and privacy protected? Honorlock is FERPA compliant and uses securely encrypted protocols to save and view all test taker assets. All data, including photos and videos, is stored in an encrypted format on isolated storage system within Honorlock's private cloud in Amazon's AWS US data centers. They are SOC 2 Type, US Privacy Shield and GDPR compliant.

How long is student data stored? Honorlock retains data for a period of 6-12 months in accordance with the UT System/Honorlock MSA. Student data is deleted after the retention period. Only a request by a student's educational institution will extend the retention period if the school is investigating a case of academic integrity.

For more information about Honorlock, refer to <https://ets.utdallas.edu/testing-center/honorlock>

References, Copyright and Plagiarism: UT Dallas has a no-tolerance policy for plagiarism, copyright infringement, or scholastic dishonesty. I support and enforce that policy. Plagiarism is using another's work as your own without appropriate credit or attribution. For more details on this policy, please see the University policies at <http://go.utdallas.edu/syllabus-policies>.

Guidance on citations and references:

<https://libguides.utdallas.edu/citation-resources>
<https://www.utdallas.edu/library/research-instruction/websites/#citations>
<https://owl.english.purdue.edu/owl/section/2/>

Exams: There will be two exams.

Academic Integrity

The faculty expects from its students a high-level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work. See

<https://www.utdallas.edu/conduct/integrity/>.

Academic Dishonesty: Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment.

Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: <https://www.utdallas.edu/conduct/dishonesty/>.

Accommodations for Students with Disabilities

It is the policy and practice of UT Dallas to make reasonable accommodations for students with properly documented disabilities. If you are a student with a disability and believe you will need academic accommodations for this class, you are encouraged to register with the Office of Student AccessAbility (OSA). Some aspects of the course, the assignments, the in-class activities, and the way the course is typically taught may be accommodated to facilitate your participation and progress. OSA will assist you in determining academic accommodations that are appropriate for your situation. Any information you provide is private and confidential and will be treated as such. To avoid any delay, please contact OSA as soon as possible. Please note that accommodations are not retroactive and disability accommodations cannot be provided until an OSA Letter of Accommodation has been given to the instructor. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact OSA for a confidential discussion. OSA is located in the Administration Building, AD 2.224 They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.