

ISM 673: Design of Secure Computer & IoT Networks for Business

Fall 2020 (Sections 673-01 and 673-02)

Instructor: Dr. A. F. Salam

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Online Session via Zoom Video Conference: Tuesdays 5:30 pm to 7:00 pm



Catalog Description:

Technology related to internal and external network/telecommunication services. Managerial and business issues related to the identification, acquisition, and management of network/telecommunications services in the contemporary enterprise.

Course Objectives:

The objectives of this course are to provide students with theories and concepts related to Telecommunications and Distributed Networks in the context of business enterprises.

Upon completion of the class, students will be able to:

1. Describe the role of telecommunications, network and IOT technologies, and services in business organizations.
2. Evaluate cost of technology procurement and the technology infrastructure of the firm.
3. Analyze existing technology and technology trends for potential impact on securing communications services.
4. Analyze adequacy of telecommunications and communications infrastructure in meeting the needs of the enterprise.
5. Analyze organizationally appropriate assured communications services and management.
6. Evaluate the issues facing Chief Information Officers in assuring the development and ongoing adequacy of the firm's telecommunications and network and IOT infrastructure.

Required Textbook and Materials:

- 1) **Networking Essentials, 5th Edition** by Jeffrey Beasley and Piyasat Nilkaew, Pearson Education.
ISBN-13: 978-0789758743

*Note: The Textbook comes with a CD-ROM. **We do NOT use CD-ROM materials. Instead we use Cisco Packet Tracer.***

In addition to the Textbook, reference and reading materials may be made available on Canvas to supplement assigned reading materials. Students will also be asked to read materials made available via selected web sites. All reading assignments should be completed during the week in which they are assigned.

Instructional Methods:

Students are expected to learn how to find information to solve the problems they encounter throughout the course. Knowing how to find answers is extremely important, as technology changes regularly. Students will be provided with an objective and asked to complete the objective using any legal and ethical means. This structure is to ensure that students learn

how to find information and solve problems on their own. **A great deal of learning in the class is self-directed, particularly for students who plan to take the CompTIA Network+ exam (optional).** Students are encouraged to use materials and resources outside of the required textbook to assist in their learning.

General Preparedness:

Students are expected to complete all assignments and participate in online discussions when they are assigned. Students are expected to be prepared by reading class materials the week they are assigned. Each student is responsible for all of the reading assignments, information and announcements that are made on Canvas and through emails. Announcements are frequently posted. **Students are expected to conduct themselves in a professional manner at all times especially in online discussion forums, group activities (if any), etc.**

Active participation in discussion forums is a critical and integral part of this course. Your thoughtful and well-reasoned discussion post or comments or suggestions or questions stimulates further discussion and alternate consideration of the discussion topic. *Trivial posts or comments will be severely discounted in terms of earned points in the discussion forums.* Trivial posts include just some bullet points that do not add to the discussion of the topic or which does not encourage further consideration by others in the forum. It is strongly encouraged that each student consider thoughtful response to posts by other students in the class or in the discussion forum. But do maintain professional manner in your posts or comments or responses even if you disagree. We can disagree but we must always maintain the highest standards of professionalism and respect towards each other. We all learn by intelligently considering alternate views and perspectives. We all are professionals and we must conduct ourselves professionally at all times especially when we interact with each other. Please also consider the challenges that we all are facing during this unprecedented COVID-19 environment.

Late Work:

Late work will NOT be accepted unless arranged with the instructor prior to the due date of the assignment/exam/project. Late work will receive a 0 (at the sole discretion of the instructor).

If late work is permitted (at the sole discretion of the instructor), late work will be penalized 5% for every day late, unless previous written arrangements are made with the instructor. No assignment will be accepted after the last official day of class unless otherwise stated by the instructor; this does NOT include final exam week.

Note: If you are affected by COVID-19, please contact the Instructor immediately or as soon as you are able. Instructor will work with the affected student under the Policies and Guidelines adopted by UNCG in relation to COVID-19 in 2020.

Participation:

Participation accounts for 10% of the total grade. Participation is based on participation in online discussions. Participation will be graded based upon consistency (participating in all of the assigned discussions) and quality. The lowest participation score will be dropped to account for emergencies.

Assignments:

Students will be required to complete multiple **individual** assignments. Assignments typically involve a set of specific tasks. All assignments and projects are expected to be completed on time. Students must strictly follow all directions and requirements for each assignment completion and submission via Canvas. Failure to follow assignment completion and submission directions can **severely lower** earned grade or points for each assignment at the sole discretion of the instructor. Please note that this is a Graduate course and therefore high standards of quality in completion, writing, presentation and submission of each assignment are expected as a norm. UNCG Academic Integrity Policy (<https://osrr.uncg.edu/academic-integrity/>) must be clearly followed and executed by each student for each graded assignment, midterm and final exams or any other graded work assigned by the instructor.

Midterm and Final Exams:

The midterm and final exams are written exams. No make-up examinations are offered unless a written, verifiable, legitimate excuse for the absence is presented to the instructor or written arrangements are made beforehand. Due to the cumulative nature of the course materials, the final exam may include content covered prior to and on the midterm. The exams will consist of content from the required text and other assigned readings, video lectures posted on canvas and materials covered in assignments including discussion forums.

CompTIA Network+ Exam:

You may take the CompTIA Network+ exam. Taking the CompTIA certification exam is **entirely optional**. Instructor strongly encourages students to complete the CompTIA Network+ exam either during or after the semester is over.

Course Schedule: Canvas Main Page for ISM 673 course is structured to reflect the entire course schedule for Fall 2020.

You will find Weekly reading assignments and any other course related items on this page.

Note: Students are required to check Canvas Main Page (Home Page) for ISM 673 and emails on a daily basis to ensure that they do NOT miss any assigned items. Please contact the Instructor directly by email if you have any questions. Send email directly to: amsalam@uncg.edu

Grading:

Your final grade is determined using the following scale and deliverable weights (subject to change depending upon class activities):

Components of Final Grade	Percentage of Final Grade
Discussion Participation (150 points)	15%
Assignments (5 @ 60 points each) (Individual) – 300 points	30 %
Midterm Exam – 250 points	25 %
Final Exam – 300 points	30%
Total Points: 1000	100%

The relationship between total points and letter grades is as follows:

95 <= X < 100	A
90 <= X < 95	A-
87 <= X < 90	B+
83 <= X < 87	B
80 <= X < 83	B-
76 <= X < 80	C+
70 <= X < 75	C
0 <= X < 60	F

Ethical Issues and the Honor Code Policies:

University students are expected to conduct themselves in accordance with the **highest standards of academic honesty**. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, plagiarism, etc. Although students are allowed to work with others on team projects, students may NOT borrow, or "share". Students will receive a 0 for the deliverable if misconduct is proven. Students should read and must follow the UNCG Honor Code.

Plagiarism is defined as "presenting as one's own work that work which is, in whole or in part, the work of another person or persons without giving proper credit to the appropriate source." This includes submitting work done by another as one's own work. It is understood that what you turn in to me for a grade represents your own effort. Plagiarism will be immediately punished with a 0 for the assignment in question. Further disciplinary action will be pursued as the instructor deems appropriate. **No credit will be received for shared work, and other penalties may be imposed by UNCG as per UNCG Academic Integrity Policy.**

Please Read Carefully:

This course also has some additional sensitive issues owing to the unique nature of networking and security. You may NEVER attempt to penetrate or conduct class activities that affect the UNCG network or any network that you do not own (such as your home network) or for which you have no written permission from appropriate enterprise authorized personnel. In this course, we ONLY use Cisco Packet Tracer (CPT version 7.3.1) that runs on your own computer and you can build any complex network using this free software.

UNCG's academic integrity policy can be viewed at: <http://academicintegrity.uncg.edu/complete/>

Bryan Faculty/Student Guidelines:

Faculty and students at UNCG have certain obligations. Please view these obligations and guidelines at: http://www.uncg.edu/bac/faculty_student_guidelines_sp07.pdf

Disabilities:

If you have a documented disability and wish to discuss academic accommodations, please contact the UNCG Office of Accessibility Services (<https://ods.uncg.edu>) and immediately notify the instructor as well via email (amsalam@uncg.edu).

Inclement Weather:

Rarely, UNCG closes for inclement weather. The radio and TV stations will have the closing notification by 6:30 am. You may also call 334-5000 for a message related to weather closings. These messages are updated hourly.

* This syllabus and course schedule are subject to change as needed and depending upon class progress and evolving COVID19 situation.



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ISM673 01 FALL 2020

REMOVE COURSE x



NETWORKING ESSENTIALS

REQUIRED | By BEASLEY

EDITION: 5TH 18
PUBLISHER: PEARSON

ISBN: 9780789758743

from \$38.35 - \$81.60

SELECT FORMAT

REQUIRED TEXTBOOK INFORMATION FOR ISM 673 FALL 2020
AT THE UNCG BOOKSTORE SITE