ISM 673: Design of Secure Computer & IoT Networks for Business
Fall 2021 (Sections 673-02) FACE-TO-FACE SECTION
Class Meeting Days: Thursdays 6:30 to 9:20 pm in Bryan Room 128

Instructor: Dr. A. F. Salam
Associate Professor of Information Systems, ISSCM Dept., Bryan School
E-Mail: amsalam@uncg.edu (email is the PRIMARY method of contact)
Phone: (336) 334-5666

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:

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<th>ISM673 01 FALL 2021</th>
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<tbody>
<tr>
<td>NETWORK SECURITY, FIREWALLS, +VPNS</td>
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<tr>
<td>REQUIRED</td>
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<tr>
<td>EDITION: 3RD 21</td>
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<tr>
<td>PUBLISHER: JONES + BART</td>
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</tbody>
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| FUNDAMENTALS OF COMMUNICATIONS + NETWORK |
| REQUIRED | By SOLOMON |
| EDITION: 3RD 22 |
| PUBLISHER: JONES + BART | ISBN: 9781284200119 |

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.
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.**

Please plan to set aside 3 to 4 hours a week to study and review the materials covered in each week in ISM 673. Based on experience, most students do NOT have a background in Networks and Security. They find the materials to be challenging. So, it is recommended that each student plan for individual study time and for participating in the Discussion Forums. Please do not fall behind.

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 Fall 2021.

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 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/](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 and may consist of multiple choice/true false and short answer questions. Additionally, there may be Cisco Packet Tracer 8.0.1 based Network Design and Implementation component as well at the sole discretion of the Instructor. 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 2021. 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):

<table>
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<tr>
<th>Components of Final Grade</th>
<th>Percentage of Final Grade</th>
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<tbody>
<tr>
<td>Discussion Participation (150 points)</td>
<td>15%</td>
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<tr>
<td>Assignments (5 @ 60 points each) (Individual) – 300 points</td>
<td>30 %</td>
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<tr>
<td>Midterm Exam – 250 points</td>
<td>25 %</td>
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<tr>
<td>Final Exam – 300 points</td>
<td>30%</td>
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<td><strong>Total Points: 1000</strong></td>
<td><strong>100%</strong></td>
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The relationship between total points and letter grades is as follows:

<table>
<thead>
<tr>
<th>Points</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>95 &lt;= X &lt; 100</td>
<td>A</td>
</tr>
<tr>
<td>90 &lt;= X &lt; 95</td>
<td>A-</td>
</tr>
<tr>
<td>87 &lt;= X &lt; 90</td>
<td>B+</td>
</tr>
<tr>
<td>83 &lt;= X &lt; 87</td>
<td>B</td>
</tr>
<tr>
<td>80 &lt;= X &lt; 83</td>
<td>B-</td>
</tr>
<tr>
<td>76 &lt;= X &lt; 80</td>
<td>C+</td>
</tr>
<tr>
<td>70 &lt;= X &lt; 75</td>
<td>C</td>
</tr>
<tr>
<td>0 &lt;= X &lt; 60</td>
<td>F</td>
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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 8.0.1) 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/bae/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.

UNCG COVID-19 Policy for Fall 2021 Face-to-Face Classes

As we return for fall 2021, the campus community must recognize and address continuing concerns about physical and emotional safety, especially as we will have many more students, faculty, and staff on campus than in the last academic year. As such, all students, faculty, and staff are required to uphold UNCG’s culture of care by actively engaging in behaviors that limit the spread of COVID-19. Such actions include, but are not limited to, the following:

● Following face-covering guidelines
● Engaging in proper hand-washing hygiene when possible
● Self-monitoring for symptoms of COVID-19
● Staying home if you are ill
● Complying with directions from health care providers or public health officials to quarantine or isolate if ill or exposed to someone who is ill.

Instructors will have seating charts for their classes. These are important for facilitating contact tracing should there be a confirmed case of COVID-19. Students must sit in their assigned seats at every class meeting and must not move furniture. Students should not eat or drink during class time.

To make it easier for students to hear their instructor and/or read lips and if conditions permit, instructors who are fully vaccinated and who can maintain at least six feet of distance from students may remove their masks while
actively teaching if they choose, but will wear a mask at all other times while in the classroom, including during the periods before and after class.

A limited number of disposable masks will be available in classrooms for students who have forgotten theirs. Face coverings will also be available for purchase in the UNCG Campus Bookstore. Students who do not follow masking requirements will be asked to put on a face covering or leave the classroom to retrieve one and only return when they follow the basic requirements to uphold standards of safety and care for the UNCG community. Once students have a face covering, they are permitted to re-enter a class already in progress. Repeated issues may result in conduct action. The course policies regarding attendance and academics remain in effect for partial or full absence from class due to lack of adherence with face covering and other requirements.

For instances where the Office of Accessibility Resources and Services (OARS) has granted accommodations regarding wearing face coverings, students should contact their instructors to develop appropriate alternatives to class participation and/or activities as needed. Instructors or the student may also contact OARS (336.334.5440) who, in consultation with Student Health Services, will review requests for accommodations.