

ISM 673: Designing Secure Computer and IoT Networks for Business

Fall 2018



Instructor: Dr. A. F. Salam
Associate Professor of Information Systems
Office: 427 Bryan Building
E-Mail: amsalam@uncg.edu (email is the preferred method of contact)
Phone: (336) 334-5666
Office Hours: Mon 4:30 pm to 6 pm and
By Appointment

Course Objectives:

The objectives of this course are to provide students with the theories and concepts related to Designing Secure Computer and Internet of Things (IoT) Networks in the context of business enterprises.

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

1. Describe the role of secure computer and IoT networks in modern business enterprises.
2. Define the fundamental concepts and theories related to secure computer and IoT networks
3. Analyze existing technology and technology trends for potential impact on businesses in relation to computer and IoT networks
4. Apply the theories and concepts related to secure computer and IoT networks in the context of modern business enterprises.

Note: This syllabus and course schedule are both subject to change depending upon class pace at the sole discretion of the Instructor. Any changes if necessary will be communicated to the students in a timely manner.

Required Textbook and Materials:

Networking Essentials, 5th Edition by Jeffrey Beasley and Piyasat Nilkaew, Pearson Education. Year 2018
ISBN-13: 9780789758743

Note: The Textbook comes with a CD-ROM. Please ignore the CD-ROM materials as we do NOT use these materials.
We will be using [Cisco Packet Tracer Version 7.2](#) for our Assignments and Simulated Labs and Exams.

In addition to the Textbook, reference books 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 readings should be read during the week in which they are assigned.

Microsoft Visio (free through MSDNAA; also available for free in computing labs). We will be using Microsoft Visio for creating Network Diagrams.

Contact the Instructor if you need Microsoft Visio.

Supplementary Materials:

For videos related to networking topics on the CompTIA Network+ exam, you can visit:
<http://www.professormesser.com/>

Instructional Methods:

This course will be delivered face to face for Section ISM 673-01 and Online for Section ISM 673-02. The course will consist of readings, lecture videos, online discussions of course materials, assignments, exams, etc.

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. **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, etc.

Please be respectful of others and be sensitive to how you respond to posted comments in discussion forums. Even if we disagree, we still must maintain professional and ethical standards at all times. Disagreements allow us to see a different perspective and help us to explore alternate conceptualizations through debates. We learn when we explore, and exploration means creativity, innovation and alternate perspectives. Agreements allow us to build a sense of unity and a direction. Both agreements and disagreements are needed to solve complex technical and social problems. But we must always respect each other at all times. In this class, we learn from each other.

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.

If late work is permitted, late work will be docked 10% for every day late up to 40% off unless previous written arrangements are made with the instructor. No assignment will be accepted after the last official day of class; this does NOT include final exam week.

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.

Students enrolled in ISM 673-01(Face to Face Section) are required to attend face-to-face class sessions to fulfill UNCG requirements. These sessions will count toward your participation grade. Face to Face class meets in Bryan 104

ONLINE Students in ISM 673-02 are NOT required/allowed to attend any of these face to face classes.

Assignments:

Students will be required to complete multiple assignments. Assignments typically involve a set of specific tasks. All assignments and projects are expected to be completed on time. The lowest assignment score will be dropped to account for emergencies at the sole discretion of the Instructor. All students MUST clearly adhere to guidelines provided in completing each assignment and exam. **Failure to follow ALL instructions in completing exams and/or assignments may result in a grade of zero for the specific assignment or exam at the sole discretion of 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 (Doctor's note if ill) for the absence is presented to the instructor or written arrangements are made beforehand. The final exam may include content covered before the midterm exam. This is primarily due to the cumulative nature of the course materials. The exams may consist of content from the required text, lecture videos and other assigned readings. The format of the midterm and final exam may be true/false, multiple choice and/or short answer questions.

CompTIA Network+ Exam (OPTIONAL):

If you desire a networking certificate, you may take the CompTIA Network+ exam. Taking the CompTIA certification exam is entirely optional. However, if you take the exam and pass, you will earn an additional 100 points toward your overall points for the course. No partial points will be awarded.

Grading:

Your final grade is determined using the following scale and deliverable weights (may change due to class activities):

| Points | Grade | Points | Grade | Points | Grade |
|---------|-------|--------|-------|--------|-------|
| | | 87-89% | B+ | 76-79% | C+ |
| 95-100% | A | 84-86% | B | 70-75% | C |

| | | | | | |
|--------|----|--------|----|-----------|---|
| 90-94% | A- | 80-83% | B- | Below 70% | F |
| | | | | | |

| Deliverables | Points/Weights |
|---|--------------------|
| Participation | 100 points |
| Assignments (4 @ 100 points each) (Individual) | 400 points |
| Midterm Exam | 200 points |
| Final Exam | 300 points |
| Total | 1000 points |

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 Academic Integrity Policy.

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.

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.

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 me as soon as possible.

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.

