COMPUTER SECURITY
3 Credits
IT 222-6
Spring 2021 (Online)

Instructor: Duwayne Thomas   **E-mail**: dthomas@navajotech.edu
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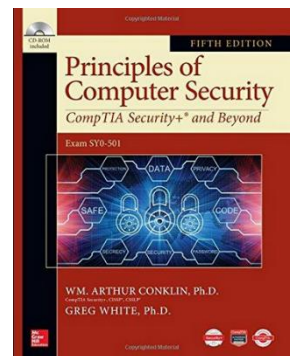
Class Location: Online
Class Meeting Times: Every week regularly in Moodle online class

Required Materials:
Textbook: *Principles of Computer Security, CompTIA Security+ and Beyond,*
ISBN: 978-1-260-02601-6

Tools: Wifi, Laptop, notebook, pens, pencils, usb drive, printing paper

Mission Statement
Navajo Technical University's mission is to provide University readiness programs, certificates, associate, baccalaureate, and graduate degrees. Students, faculty, and staff will provide value to the Diné community through research, community engagement, service learning, and activities designed to foster cultural and environmental preservation and sustainable economic development. The University is committed to a high quality, student-oriented, hands-on-learning environment based on the Diné cultural principles: *Nitsáhákees, Nahátá, Íína, Siihasin.*

Course Description
This course introduces the essentials of computer and network security and covers of all the objectives for CompTIA'a Security+ certification program. Best practices, roles, and responsibilities of security practitioners are covered. Defensive measures are also introduced to protect computer systems and networks from attacks.

Week	Date	Chapters	Assignment (True/False, Multiple Choice, and Matching)	Quiz
1	1/25/21	Introduction and Syllabus Chapter 1: Introduction and Security Trends	Pre-Assessment Test Ch. 1 homework	Chapter 1
2	2/01/21	Chapter 2: General Security Concepts	Ch. 2 homework & Extra Credit	
3	2/08/21	Chapter 3: Operational/Organizational Security	Ch. 3 homework & Extra Credit	Chapter 2
4	2/15/21	Chapter 4: The Role of People in Security	Ch. 4 homework & Extra Credit	Chapter 3
5	2/22/21	Chapter 5: Cryptography	Ch. 5 homework & Extra Credit	Chapter 4
6	3/01/21	Chapter 6: Public Key Infrastructure	Ch. 6 homework & Extra Credit	Chapter 5
7	3/08/21	Chapter 7: Standards and Protocols	Ch. 7 homework & Extra Credit	Chapter 7
8	3/15/21	MID-TERM EXAM		Chapters 1—7
9	3/22/21	Chapter 8: Physical Security	Ch. 8 homework & Extra Credit	
10	3/29/21	Chapter 9: Network Fundamentals	Ch. 9 homework & Extra Credit	Chapter 8
11	4/05/21	Chapter 10: Infrastructure Security	Ch. 10 homework & Extra Credit	Chapter 9
12	4/12/21	Chapter 11: Authentication and Remote Access	Ch. 11 homework & Extra Credit	Chapter 10
13	4/19/21	Chapter 12: Wireless Security and Mobile Devices	Ch. 12 homework & Extra Credit	Chapter 11
14	4/26/21	Chapter 13: Intrusion Detection Systems and Network Security	Ch. 13 homework & Extra Credit	Chapter 12
14	5/03/21	Post Assessment Exam		
15	5/10/21	Final Exam		Ch. 1—13

COURSE OUTCOMES	COURSE MEASUREMENTS
1. Identify and discuss recent trends in computer security, including relevant historical events and crimes that have been committed	Evidence of test with a score of 70%
2. Describe fundamental computer security concepts and explain how security models are operationally employed.	Evidence of test with a score of 70%

3. Describe the security issues associated with e-mail, instant messaging, and other communication modes.	Evidence of test with a score of 70%
4. Describe the human element and the role that people play in security—both the user practices that can aid in securing an organization and the vulnerabilities or holes in security that users can introduce.	Evidence of test with a score of 70%

Grading Plan:

Coursework will be weighted as follows:

1. Attendance (Moodle)	25%
2 Homework (Moodle)	25%
3. Participation (Moodle)	25%
4. Quizzes/Tests (Moodle)	<u>25%</u>
	100%

Grading Policy

Each student must do his or her own homework and case studies. Discussion among students on homework and cases is encouraged for clarification of assignments, technical details of using software, and structuring major steps of solutions - especially on the course's Web site. Students must do their own work on the homework and exam. Cheating and Plagiarism are strictly forbidden. Cheating includes but is not limited to: plagiarism, submission of work that is not the student's own, submission or use of falsified data, unauthorized access to exam or assignment, use of unauthorized material during an exam, supplying or communicating unauthorized information for an assignment or exam.

Participation

Students are expected to attend and participate in all class activities- as listed above, as it is 25% of the grade. Points will be given to students who actively participate in class activities including field trips, laboratories, and ask questions of guest speakers and other presenters.

Cell phone and head phone use

Please turn cell phones off or place them on silence or vibrate mode **BEFORE** coming to class. Also, answer cell phones **OUTSIDE OF CLASS** (not in the classroom). Exercising cell phone use courtesy is appreciated by both the instructor and classmates. Headphones are to be removed before coming to class.

Attendance Policy

Students are expected to log into Moodle class page every week regularly, complete course work and take quizzes in a timely manner. This will serve as attendance. Absence from Moodle class page, regardless of the reason, does not relieve the student of his/her responsibility to complete all course work by the required deadlines. Incomplete or missing quizzes will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential

intervention. Instructors may drop students from the class after three (3) weeks of inactivity in Moodle class page unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.

Study Time Outside of Class for Face-to-Face Courses
For every credit hour spent in a class, a student is expected to spend two hours (2) outside of class studying the course materials.

Academic Integrity

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.

Diné Philosophy of Education

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íína and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

Students with Disabilities

The Navajo Technical University and Chinle Learning Center are committed to serving all enrolled students in a non-discriminatory and accommodating manner. Any student who feels he/she may need an accommodation based on the impact of disability, or needs special accommodations should inform the instructor privately of such so that accommodations arrangement can be made. Students who need an accommodation should also contact the Special Needs Counselor at 505-786-4138.

Computer Services
Students using computers at NTU are expected to follow the Information Technology policy and procedures. Students using NTU e-mail, Internet Services, or any university software or hardware, should have an understanding that this technology is provided by NTU and is the property of NTU. The university reserves the right to review and monitor the use of hardware and software belonging to the school or personal equipment utilized on school premises. Such rights include the auditing of documents sent, received, or viewed through the Internet and e-mail.