North Central State College

MASTER SYLLABUS	2025-2026

A. Academic Division: Engineering Technology, Business & Criminal Justice Division

B. Discipline: Information Technology – Networking

C. Course Number and Title: ITEC1690 – Network Security (Security+)

D. Assistant Dean: Brooke Miller, M.B.A.

E. Credit Hours: 3
Lecture: 2 hours
Laboratory: 2 hours

F. Prerequisites: ITEC1420 (minimum grade of C-) or ITEC1610 (minimum grade of C-)

G. Last Course/Curriculum Revision Date: Fall 2025 Origin date: 02/17/2014

H. Textbook(s) Title:

Security Pro
- Author: Testout
- ISBN: 9781935080442

CompTIA Security+ Study Guide: Exam SY0-701 - optional
- Author: Chapple, Seidl
- Copyright Year: 2023
- Edition: 9th
- ISBN: 9781394211418

I. Workbook(s) and/or Lab Manual:

J. Course Description: This course helps students acquire the knowledge and skills required to identify risk and to employ risk mitigation activities that ensure infrastructure and operational security with respect to network and data confidentiality, integrity, and availability. Students will use a variety of tools to capture, analyze, and generate network traffic. Students will also gain an awareness of applicable security policies, laws, and regulations. This course prepares students for the CompTIA Security+ certification exam.

K. College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Select the appropriate authentication, authorization, or access control for a given set of conditions.	Weeks 1-2 labs, practice questions, midterm weeks 7-8 and final exam weeks 15-16
2. Apply general cryptography concepts or principles for a given set of conditions.	Weeks 3-4 labs, practice questions, midterm weeks 7-8 and final exam weeks 15-16
3. Identify risk concepts with respect to networks, systems, and data.	Weeks 5-6 labs, practice questions, midterm weeks 7-8 and final exam weeks 15-16
4. List security issues inherent to wireless networking.	Weeks 7-8 labs, practice questions, midterm and final exam weeks 15-16
5. Summarize various types of network, systems, and data attacks.	Weeks 9-10 labs, practice questions, and final exam weeks 15-16
6. List security issues inherent to wireless networking.	Weeks 11-12 labs, practice questions, midterm and final exam
7. Describe application security controls and techniques.	Weeks 13-14 labs, practice questions, and final exam weeks 15-16
8. Install and configure account management security controls based on best practices.	Weeks 15-17 labs, practice questions, and final exam
9. Demonstrate the appropriate use of tools and techniques to discover security threats and vulnerabilities for a given set of conditions.	Weeks 15-17 labs, practice questions, and final exam

M. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70-72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

N. College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences. Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

* *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

Important information regarding College Procedures and Policies can be found on the syllabus supplement located at https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf

North Central State College

SYLLABUS ADDENDUM

Academic Division:	Engineering Technology, Business & Criminal Justice Division	**Discipline:**	Information Technology
Course Coordinator:	Daniel Foss		
Course Number:	ITEC-1690-920	**Course Title:**	Network Security (Security+)
Semester / Session:	Spring 2026	**Start / End Date:**	1/12/2026 - 5/8/2026

Instructor Information

Name:	Daniel Foss	**Credentials:**	M.Ed., Curriculum and Instruction – Computer B.S., Education
Phone Number:	419-755-4728	**E-Mail Address:**	dfoss@ncstatecollege.edu
Office Location:	Kehoe Room 139	**Office Hours:**	By appointment: Mondays 3:00 PM – 4:30 PM Tuesdays, 8:00 AM -11:30 AM Other times via Zoom: https://tinyurl.com/ITEC-Office-Hours

I. Topical Timeline / Course Calendar (Subject to Change – refer to Canvas for schedule):

Security+ Course Schedule – Spring 2026

Week	Assignments	Due Date (Friday)
Week 1	Presentation: 1.0 Security Fundamentals; CIA Triad; Risk Management Basics; Lab: Security Concepts; Quiz – Security Basics	16-Jan-26
Week 2	Presentation: 2.0 Threats, Attacks & Vulnerabilities; Malware Types; Social Engineering; Lab: Identify Threats; Quiz – Threat Categories	23-Jan-26
Week 3	Presentation: 3.0 Secure Network Design; Firewalls; VLANs; Lab: Network Segmentation; Quiz – Network Security Architecture	30-Jan-26
Week 4	Presentation: 4.0 Secure Protocols; TLS, SSH, IPsec; Lab: Configure Secure Protocols; Quiz – Secure Protocols	6-Feb-26
Week 5	Presentation: 5.0 Identity & Access Management; Authentication Methods; MFA; Lab: Implement IAM; Quiz – IAM Concepts	13-Feb-26
Week 6	Presentation: 6.0 Cryptography Basics; Symmetric vs Asymmetric; PKI; Lab: Encrypt Data; Quiz – Crypto Fundamentals	20-Feb-26
Week 7	Presentation: 7.0 Public Key Infrastructure; Certificates; Lab: Configure PKI; Quiz – PKI Operations	27-Feb-26
Week 8	Presentation: 8.0 Secure Application Development; SDLC; Secure Coding; Lab: App Security Review; Quiz – Secure Coding Practices	6-Mar-26
	Spring Break - March 7-15, 2026	
Week 9	Presentation: 9.0 Cloud Security; SaaS, PaaS, IaaS; Shared Responsibility Model; Lab: Cloud Security Controls; Quiz – Cloud Security	27-Mar-26
Week 10	Presentation: 10.0 Incident Response; Phases; Forensics Basics; Lab: IR Plan; Quiz – Incident Response Steps	3-Apr-26
Week 11	Presentation: 11.0 Disaster Recovery & Business Continuity; Backups; DR Sites; Lab: DR Planning; Quiz – DR/BC Concepts	10-Apr-26
Week 12	Presentation: 12.0 Risk Management Advanced; Quantitative vs Qualitative; Lab: Risk Assessment; Quiz – Risk Analysis	17-Apr-26
Week 13	Presentation: 13.0 Governance, Compliance & Legal; GDPR, HIPAA; Lab: Compliance Mapping; Quiz – Regulatory Frameworks	24-Apr-26
Week 14	Practice Final Exam – Part A (Security+ Domains); Practice Final Exam – Part B	1-May-26
Week 15	Security+ Certification Practice Exam	1-May-26
Finals Week	**Final Exam**	4-May-26

II. Grading and Testing Guidelines:

Category	Count	Points	Weight
Labs	85	850	40%
Quizzes	65	650	30%
Exams	10	500	30%

Grading scale is the college grading scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
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77–79	C+	2.33	Average
73–76	C	2.00	Average
70-72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

III. Examination Policy:

- All exams must be submitted through Canvas.
- You may reference online videos and documentation, as well as other reputable sources.
- Collaboration on exams is not permitted unless explicitly authorized.
- AI tools (e.g., Copilot, ChatGPT) are not allowed during quizzes or exams.
- Free Tutoring Service is available: https://ncstatecollege.edu/student-services/tutoring/

Assignment Policy:

- All assignments must be submitted using Canvas.
- AI Tools like Copilot and ChatGPT may be used for feedback or clarification, but final submissions must reflect your own independent work.
- Use of the online materials and videos for reference is encouraged.
- You may consult documentation, tutorials, and forums for guidance.
- Download, complete, and upload your own work. All submitted project files must be your own original work.
- Plagiarism or submission of work not your own is a serious offense and may result in course failure.
- If you need assistance with the course assignments, contact the Tutoring Department or the Instructor. Tutoring Information (free) can be found at: https://ncstatecollege.edu/student-services/tutoring/

IV. Course Attendance and Late Assignment Policy:

- Class attendance is recorded by completion of weekly assignments and activities.
- Assignments are due before midnight every Friday.
- Early submissions are encouraged.
- Except for the final project, all assignments are allowed to be submitted late.
- Each assignment builds on previous work, do not skip assignments. If it is late, submit as soon as possible.
- If you anticipate missing a deadline, contact the instructor in advance to discuss possible accommodation.
- Excused absences include:

  a. Hospitalization
  b. Death in the family
  c. Personal illness or illness in immediate family
  d. Military leave
  e. Travel for employment

V. Course Expectations:

- All students are expected to demonstrate professional behavior and use language appropriate for the learning experience, both written and orally.
- For online classes, students are required to have access to an internet connection and a laptop or desktop computer. Chromebooks are not adequate for this course.
- MacBooks are acceptable, however, there may be some assignments that can only be completed on a Windows computer.
- The college provides free computer labs - https://ncstatecollege.edu/student-services/computer-labs/ and loaner laptops - https://ncstatecollege.edu/advocacy-and-resources/ - select Technology Resources