

Network Security

Fall 2021 • 150-194-2EMA • 3 Credits

Meeting Dates and Time: Thursday 2:00 – 4:00pm.

Start Date: 9/2/2021 • **End Date:** 12/9/2021

Instructional Delivery Method: Blended, Face to Face

Location: Gateway Technical College • Elkhorn Campus • 400 County Road H • Elkhorn, WI 53121

Instructor: Wendy Klemp

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Office: Elkhorn Campus • 400 County Road H • Elkhorn, WI 53121

Room: E221

Office Hours: Monday 1:00 – 2:00pm, Tuesday 12:00 – 2:00pm, Wednesday 4:20 – 5:30pm, Thursday 1:00 – 2:00pm.

Underlined text links out to additional information relating to the topic.

Course Information

Course Description: Students will learn how to maintain security in the workplace. Security plans will be created based on, but not limited to, ten key security technologies: access control, network security, management security procedures, systems development security, cryptography, security models, operations security, disaster recover, laws and ethics, and physical security.

Required Text and Course Materials: Ciampi. (2022) CompTIA Security+ Guide to Network Security Fund (w/Access). 7th Edition. ISBN: 9780357271421

Course Competencies:

- Use the Internet to research security issues.
- Explain how security technology is essential to business operations.
- Demonstrate how and where to implement security technology.
- Examine each of the key areas of security technology.
- Write a security implementation plan.
- Select the appropriate security technology based on different needs.
- Configure leading security software products.
- Resolve security vulnerabilities.
- Adhere to professional information technology procedures.
- Utilize IDS/IPS terminology.

[Course Outcome Summary:](#)

Essential Career Competencies: Gateway believes students need both technical knowledge/skills and core abilities in order to succeed in a career and in life. The core abilities are the general attitudes and skills promoted and assessed in all Gateway programs.

Tuition Refund Policy:

Tuition refunds are processed according to the Wisconsin Technical College System Refund Policy for program, material and activity fees. Refunds are applicable only from the date the student formally drops a class(es).

Strengths Based College:

Gateway promotes a strengths-based experience to help students explore, value, and appreciate their unique talents and those of others. Using Clifton Strengths, students discover how they best approach learning and growth. They also learn to function more effectively in groups with diverse strengths, backgrounds, and experiences. Strengths enhance students' academic, personal, and professional development and success at Gateway and beyond.

Course Section Requirements & Policies

Course Attendance/Participation Policy:

Your participation is important! You are a vital resource with unique experience and perspective. Thoughtful "discussion" cannot occur without your participation. Since interaction is intended to provide information, stimulation and inspiration, it is a component of your semester grade. Participation will be monitored by your involvement in class or discussion boards each week.

Your success in the course depends greatly on your presence in class. Attendance means “being here” mentally as well as physically. During the course of the program, you will be expected to be in attendance just as you would be on a job-both physically and mentally. Please remember that often times what happens in the classroom is a unique learning experience that cannot be duplicated just by getting the notes for the day or by reading a textbook. Should you find yourself ill or in extenuating circumstances that prevent you from being in class, you are still responsible for doing the work for that day. It is your responsibility to contact me to get any required work or turn in any work that was due.

Please Note: If you do not complete weekly assignments, discussion postings, and/or quizzes in Blackboard you may be dropped from the course.

Zoom Classroom Expectations

This online synchronous section of this class will be held via Zoom – [Click here](#) to view some common courtesy expectations so the class goes smoothly.

Course Grading Policy:

Final grades will be calculated based on the following:

- Participation = 12%
- Assignments/Labs = 76%
- Final Exam = 12%
- Total = 100%

Grading Scale:

At the end of the semester, the points will be converted to a percentage and the grade determined as follows:

A	94 -100%
A-	90-93%
B+	87-89%
B	84-86%
B-	80-83%
C+	77-79%
C	74-76%
C-	70-73%
D+	67-69%
D	64-66%
D-	60-63%
F	<60%

Note: Students in the IT program must earn a "C" or higher in the class or retake it

Late Work:

We all can have a bad day or forget to do an assignment. You may turn in 1 assignment per semester without suffering a late penalty. Please contact your instructor to discuss the missing assignment and negotiate a new deadline.

Key Dates:

Financial Aid Census Date:	09/12/21
Last Day for Students to Drop:	09/21/21
Instructor Drop Period:	09/22/21 through 09/28/21
Midterm Grade Date:	10/15/21
Last Date for Students to Withdraw:	11/17/21

Course Section Calendar [[Gateway Academic Calendar](#)]

Week	Assignment	Due Date
1 September 2	Read: Chapter 1 Review PPT Syllabus acknowledgment Introductions Case Project 1-1 Hands-On Project 1-4 and 1-5 Create a virtual machine with Windows 10 Chapter 1 check in	Please refer to Blackboard for all Due Dates!
2 September 9	Read: Chapter 2 Review PPT Case Project 2-1 and 2-2 Hands-On Project 2-1 Exploring Common Vulnerabilities Hands-On Project 2-2 Exploring the National Vulnerability Database. Week 2 check in	Chapter 1 Assignments Due

3 September 16	Read: Chapter 3 Review PPT Case Projects 3-3 and 3-4 Hands-On Project 3-1 Analyze File and URL- Part 1 Hands-On Project 3-2 Analyze Virus File – Part 2 Hands-On Project 3-4 Use a Software Keylogger Week 3 Check in	Chapter 2 Assignments Due
4 September 23	Read: Chapter 4 Review PPT Case Project 4-3 Hands-On Project 4-3 Windows Security – Part 1 Hands-On Project 4-4 Windows Security – Part 2 Week 4 Check in	Chapter 3 Assignments Due
5 September 30	Read: Chapter 5 Review PPT Case Projects 5-3 and 5-6 Hands-On Project 5-1 QR Codes Hands-On Project 5-2 Using Software to Locate a Missing Laptop Week 5 check in	Chapter 4 Assignments Due
6 October 7	Read: Chapter 6 Review PPT Case Project 6-7 Hands-On Project 6-1 OpenPuff Steganography Hands-On Project 6-2 Running an RSA Cipher Demo Week 6 check in	Chapter 5 Assignments Due
7 October 14	Read: Chapter 7 Review PPT Case Project 7-4 Hands-On Project 7-2 Viewing Digital Certs. Hands-On Project 7-3 Viewing Digital CRL Week 7 check in	Chapter 6 Assignments Due
8 October 21	Read: Chapter 8 Review PPT Case Project 8-1 Hands-On Project 8-1 DNS Poisoning Hands-On Project 8-3 MAC Spoofing Week 8 check in	Chapter 7 Assignments Due
9 October 28	Read: Chapter 9 Review PPT Case Project 9-1 Hands-On Project 9-2 Defender Firewall - Apps Hands-On Project 9-3 Defender Firewall - Ports Week 9 check in	Chapter 8 Assignments Due
10 November 4	Read: Chapter 10 Review PPT Case Project 10-2 Case Project 10-4 Project 10-1 SNMP MIB Elements Project 10-2 Using a Secure Email Feature	Chapter 9 Assignments Due

	Week 10 check in	
11 November 11	Read: Chapter 11 Review PPT Case Project 11-1 Hands-On Project 11-1 Using a Wireless Monitor Tool Hands-On Project 11-3 Configuring Access Points Week 11 check in	Chapter 10 Assignments Due
12 November 18	Read: Chapter 12 Review ppt Case Project 12-1 Hands-On Project 12-1 Online Password Cracker Hands-On Project 12-4 Using a Password Vault Hands-On Project 12-6 Using Windows Picture Password Week 12 check in	Chapter 11 Assignments Due
13 November 25	No Class - Thanksgiving	Chapter 12 Assignments Due
14 December 2	Read: Chapter 14 Review ppts Case Project 14-1 Hands-On Project 14-1 Windows File History Hands-On Project 14-2 Viewing and Changing the Backup Archive Bit Week 13 Check in Begin Final Exam	
15 December 9	Final Check in	Chapter 14 Assignments, Final Exam and Final Check in Due

Class Policies:

- ❑ All assignments are due at 11:59pm.
- ❑ Assignments have a 5 day window for accepting late assignments, resulting in a 25% reduction.
- ❑ Assignments will receive a zero grade past the grace period.
- ❑ No assignments will be accepted beyond the last day of class.

College Policies

The policies and procedures outlined in the [Gateway Student Handbook](#).

Academic Honesty:

Academic integrity is a major expectation in this course. Any student found to be cheating or submitting unoriginal, copied, or plagiarized work in this class will receive an automatic zero on that work.

Alcohol and Drug Policy:

Alcohol in any shape or form is prohibited on all Gateway property without consent. Any illicit drug in any shape or form is prohibited on Gateway properties and campuses. Any persons under the influence of any illicit drug or alcoholic substance, legal or illegal, are prohibited on Gateway properties and campuses.

College Attendance Policy:

Gateway Technical College recognizes the importance of attendance in the learning process but does not believe that attendance in and of itself constitutes learning. Instructors will document in their course syllabi fair and reasonable attendance policies for their classes based on their subject matter, delivery methods, learning activities, student audience, external regulations, and employer expectations in their field of instruction.

Concealed Carry/Weapons Policy:

Weapons including but not limited to firearms and knives are not permitted on Gateway properties and campuses except by authorized law enforcement representatives.

Computer Networking & Information Resources:

Your use of Gateway computing and networking resources and information systems is governed by federal and state law; acceptable Internet use practices; Gateway policies; this Computing, Networking and Information Resources policy; and sub-policies under this policy set. Additionally, all Gateway policies regarding the appropriate use of Gateway resources and responsible personal conduct apply to your use of Gateway computing and networking resources and information systems.

Digital Courtesy Statement:

Many students like to record lectures but it is important to obtain the instructor's permission before doing so. If you obtain permission to record, you should do so in an unobtrusive manner to avoid distracting your classmates. Copyrighted material cannot be recorded, eg videotapes, etc.

If you carry a cell phone to class, silence or turn it off for the duration of the class. Refrain from reading and composing text messages during class. This is especially critical during tests.
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Federal Family Educational Rights & Privacy Act (FERPA):

Technical College complies with the provisions of FERPA. Prior written consent from a student must be obtained before information may be disclosed by Gateway Technical College to third parties, unless the information or the individual or group making the request is exempted by the policy and the Family Educational Rights and Privacy Act of 1974.

Pregnant and Parenting Students:

Gateway Technical College does not discriminate against any student on the basis of pregnancy or related conditions. Pregnant and parenting students are eligible for protection and accommodation under Title IX.

Security Administration (Workplace Violence):

Weapons including but not limited to firearms and knives are not permitted on Gateway properties and campuses except by authorized law enforcement representatives.

Sexual Misconduct (Title IX) and Discrimination: Gateway Technical College seeks to provide an environment that promotes equal opportunity free from discrimination and harassment. If you have been a victim of sexual harassment, sexual misconduct, sexual assault, or any other form of protected class discrimination, we encourage you to make a report.

Student Code of Conduct: The Gateway District believes every student has the right to pursue an education free from disruption, harassment, illegal activities, threats, or danger. The District further believes that academic honesty and integrity are fundamental to the educational mission of this College. Every student is expected to comply with the standards set and to be familiar with all the rules, regulations, and policies of Gateway Technical College.

Student Complaints:

In order to provide students with the opportunity to have any complaint or concern they encounter at Gateway heard and addressed, the college maintains informal and formal channels for student complaints. The college requires that students first use informal channels to seek resolutions by working directly with the parties involved. If resolution cannot be reached, formal channels are provided to reach prompt and fair resolution of complaints.

Student Due Process Rights:

The Gateway District believes that students need a process to address academic concerns (i.e. grades, classroom policies) and bring their issues to the faculty and administration's attention. These procedures are intended to afford students, faculty, and the College fair and equal treatment. The student may seek guidance from a Student Services counselor who will assist the student in understanding the process. All complaints must be filed within one (1) year of occurrence.

Student Religious Accommodations Policy:

In compliance with Wisconsin Administrative Code, Gateway Technical College will make reasonable accommodation of a student's religious beliefs. A student may request reasonable accommodation from his/her instructor with regard to examinations and other academic requirements.

Tobacco Policy:

This policy is applicable and extends coverage to all Gateway Technical College Campuses, Centers, and grounds with no exceptions at any time (24/7). A tobacco-free/smoke-free workplace will increase quality of life for employees, decrease absenteeism, and saves on other health-related personnel costs.

College Resources

Care Team: This multi-disciplinary team of leaders from across the college focuses on intervening in situations involving both students and staff who are experiencing distress, or engaging in harmful or disruptive behavior. The CARE team meets regularly and reviews all CARE team reports submitted.

IDEA Course Evaluations:

Gateway is focused on the quality of your education. Course evaluations help instructors identify what is working in class and look for opportunities for improvement. Student feedback is valued and helps Gateway ensure you are receiving the highest quality education. You may be asked to complete an evaluation for one or more of your courses each semester. Completing your course evaluations is quick and can be done anytime online.

Disability Support Services:

Students with disabilities who believe they may need reasonable accommodations in this class are encouraged to contact the **Disability Support Services office** on their campus as soon as possible to ensure that such accommodations are implemented in a timely fashion.

Disability Support Services (DSS) offers a variety of accommodations and support services to assist students in their academic success. However, accommodations are not retroactive and course standards will not be lowered, therefore, students are encouraged to connect with the staff early.

Pandemic Emergencies:

Should there be a public health pandemic emergency, and school is closed for any length of time, this course will continue to be taught via Internet/Blackboard unless you are notified by the school or your instructor.

During the COVID-19 public health pandemic, the student is responsible for:

- Wearing a face covering at all times while on campus. If you do not have one, the college will provide one for you. Students will be asked to leave the campus and/or classroom if they do not comply with this requirement. This link provides information on how to properly wear a cloth face covering and contains detailed instructions for making a face covering.
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>
- Maintaining social distancing.
- Staying home if you are sick or having any of the symptoms of COVID-19.
- As is college policy, wearing your Gateway ID or be able to produce it if asked for it by security.
- Being prepared and able to adapt if there is an unplanned pandemic emergency and the college is forced to close; be present when classes are in session if delivered via teleconference (zoom) or other alternative delivery method and manage your time so that you can complete your assignments and assessments on or before the date they are due.
- Completing work missed due to an absence within the time frame determined by the instructor.
- Helping to keep the college safe by cleaning your seat and work area with provided cleaning/sanitizing supplies available in each classroom.

Student Support Service:

Gateway's Learning Success team is here to help you succeed during your time at Gateway. We aim to empower you to do your best by offering a wide variety of no-cost academic assistance and support services.

Handshake:

Handshake is the #1 way college students launch their careers. This free resource is for degree-seeking students and graduates to discover jobs and internships, connect with employers, register for career fairs, and get hired – all in one place.

This course syllabus was created/revised 8/29/2021 and is subject to change at the instructor's discretion. All changes will be announced in Blackboard.