



South Portland, Maine 04106
Computer Information Security

Title: Fundamentals of Network Security

Catalog Number: INSC 160

Credit Hours: 4

Total Contact Hours: 60

Lecture (or Lab): Lecture/Lab/on-line

Instructor: Wendy Plourde

Office Hours – Location: CSEC 24
Tues & Thurs 12:30-1:30

Contact Information: wplourde@smccme.edu

Course Syllabus

Course Description

Course provides an introduction to the fundamentals of network security, including compliance and operational security; threats and vulnerabilities; application, data, and host security; access control and identity management; and cryptography. The course covers new topics in network security as well, including psychological approaches to social engineering attacks, Web application attacks, penetration testing, data loss prevention, cloud computing security, and application programming development security. This course offers a comprehensive guide for anyone wishing to take the Computing Technology Industry Association (CompTIA Security+) Certification Exam.

Prerequisite(s) CMPT 100, CMIT 105

Co-requisite(s) ENGL 100

Course Objectives

Student will be able to apply network security principles and strategies in Microsoft 2008 server, Windows 2007 and Web Browser environments. Students will be prepared to sit for the CompTia Security+ exam.

After successfully completing the course, the student will be able to:

- Apply and implement secure network administration principles
- Describe the importance of security awareness and training
- Identify and analyze threats and vulnerabilities
- Describe the importance of application and data security
- Describe cryptography concepts
- Apply cryptography tools and products

Course Outline

Topic/Chapter	Assignments
Week 1 Introduction to Security	Module 1 Reading and Videos Labs Review Tools Module Quiz
Week 2 Malware and Social Engineering Attacks	Module 2 Reading and Videos Labs Review Tools Module Quiz
Week 3 Application and Networking-Based Attacks	Module 3 Reading and Videos Labs Review Tools Module Quiz
Week 4 Host, Application, and Data Security	Module 4 Reading and Videos Labs Review Tools Module Quiz
Week 5 Basic Cryptography	Module 5 Reading and Videos Labs Review Tools Module Quiz
Week 6 Advanced Cryptography	Module 6 Reading and Videos Labs Review Tools Module Quiz
Week 7 Network Security Fundamentals	Module 7 Reading and Videos Labs Review Tools Module Quiz
Week 8 Administering a Secure Network	Module 8 Reading and Videos Labs Review Tools Module Quiz
Week 9 Wireless Network Security	Module 9 Reading and Videos Labs Review Tools Module Quiz
Week 10 Mobile Device Security	Module 10 Reading and Videos Labs Review Tools Module Quiz
Week 11 Access Control Fundamentals	Module 11 Reading and Videos Labs Review Tools Module Quiz
Week 12	Module 12 Reading and Videos Labs Review Tools

Authentication and Account Management	Module Quiz
Week 13 Business Continuity	Module 13 Reading and Videos Labs Review Tools Module Quiz
Week 14 Risk Mitigation	Module 14 Reading and Videos Labs Review Tools Module Quiz
Week 15 Vulnerability Assessment	Module 15 Reading and Videos Labs Review Tools Module Quiz
Week 16	Final Exam

Course Requirements

This course will use BlackBoard with links to MandTap. Every week there will be the Chapter reading/videos, lab assignment, review of tools and chapter quiz and one Final Exam based off CompTIA's Security+ exam objectives. Work in MindTap accounts for 85% of your overall grade.

Student Evaluation and Grading

Participation/Discussions/Attendance	15%
MindTap – Lab	25%
MindTap – Quizzes	25%
MindTap - Essays	25%
Final Exam	10%

A	93 - 100	C+	77 - 79
A-	90 - 92	C	73 - 76
B+	87 - 89	C-	70 - 72
B	83 - 86	D+	67 - 69
B-	80 - 82	D	63 - 66
		F	62.999

Text, Tools and / or Supplies

Textbooks		ISBN-10	Pricing New
Book Title CME LLF SEC GDE NETWORK SEC F Author(s): Ciampa Copyright: NA Publisher: Cengage Learning		9781337756808	146.75
COMPTIA Security (Guide to Network Sec Package) Author(s): Ciampa Copyright: 2017 Publisher: Cengage Learning		9781337100533	100.00
MindTap Computing for Ciampa's CompTIA Security+ Guide to Network Security Fundamentals, 5th Edition, Instant Access, 1 term (6 months) Author(s): Ciampa Copyright: NA Publisher: Cengage Learning		9781337100502	100.00

NOTE: You only need the last options highlighted. Free MindTap access for the first week!!

MindTap Learning and Access

This course will use MindTap through the Cengage publisher site. MindTap integrates the interactive e-book with hands-on labs, quizzes and activities. Students will not have access to MindTap until the first day of the semester and all mandatory assignments are linked in BlackBoard.

How to avoid PopUp blocker issues:

http://www.cengage.com/lms_docs/system_check/popupsfailed/popupsfailed_chrome.htm

More about MindTap from: <http://blog.cengage.com/philosophy-students-achieve-higher-grades-instructors-report-improved-critical-thinking-skills-mindtap/?iba=W170000015959>

Attendance Policy – Face-to-Face or Hybrid

Regular and prompt attendance will contribute to your success in this class. Missing 3 consecutive classes will result in being recorded as a no-show and you will be dropped from the class. 5 or more absences will be recorded as a zero in Participation/Attendance portion of your grade may result in academic failure. If you come in after the start of the class you may be marked as absent. If you frequently leave the class (i.e. In the middle of a lecture) you will be marked as absent.

Attendance/Participation Policy – On-Line

A student attending an on-line course must login to Blackboard in the first week of the semester and submit an introduction in the Discussions board. Not logging in will result in being recorded as a no-show and you will be dropped from the class. Not submitting the weekly assignment or participating in the weekly discussion can result in an absent for the week. 5 or more absences will be recorded as a zero in Participation/Attendance portion of your grade may result in academic failure.

End-of-Course Evaluation

Students complete evaluations for each course attended at SMCC. Evaluations are submitted online and can be accessed through the student portal. Students can access the course evaluations beginning one week before the end of classes. The deadline for submission of evaluations occurs Monday at 5 p.m. following the last day of the class. You will receive an e-mail to your student e-mail account when course evaluations are available.

ADA Syllabus Statement

Southern Maine Community College is an equal opportunity/affirmative action institution and employer. For more information, please call (207) 741-5798. If you have a disabling condition and wish to request accommodations in order to have reasonable access to the programs and services offered by SMCC, you must register with the Disability Services Coordinator, Sandra Lynham, who can be reached at 741-5923. Further information about services for students with disabilities and the accommodation process is available upon request at this number. Course policies about online testing are modified to suit each individual's accommodations.

The Learning Commons:

The library, tutoring and writing centers, and open study space are located on the second floor of South Portland's Campus Center and in the Midcoast's LL Bean Learning Commons and Health Science Center. Here you can find free academic support through individual and online tutoring, information literacy/research librarians, and professional academic strategy/planning mentoring. There are many desktop and laptop computers as well as printers, reserve textbooks, and other academic tools available for use within the Learning Commons. Services are offered by appointment or as drop-in assistance. To

access services, visit My Learning in My Maine Guide. Students consistently report that the Learning Commons is an inviting and friendly place to seek academic support or study. Those who make use of the Learning Commons regularly have been shown to be more likely to succeed—take advantage of this exceptional resource for this, or any of your classes.

SMCC Pay-for-Print Policy

Each semester students receive a \$20 printing credit. The balance resets at the end of the semester and any remaining credits are removed. The College's pay-for-print system monitors printing on all printers (including those in general access labs, library printers, Tutoring Services, Campus Center Lounge and technology labs). Be sure to log OUT of the system when you've finished your printing, to prevent unauthorized access to your account. Students can check the number of pages they have printed by using the Printing Balance tool available on SMCC computers (located in the lower right corner of the screen, near the clock). Departments with work study students who need to print documents for the department should contact the Help Desk at 741-5696 to have a special account set up. To find ways to reduce your printing charges, please go to the IT Help tab on My SMCC. If you have questions about the pay-for-printing policy or your printing charges, please contact the Help Desk at 741-5696 or send an e-mail to helpdesk@smccme.edu.

Refunds

Print jobs are eligible for a refund in the event of mechanical or electronic error on the part of the printer, print server, or software used to submit the job. Jobs are not eligible for a refund in cases where the job was not set up correctly, was submitted multiple times, or the student is not satisfied with the result. To request a refund, please bring the offending print to the IT Department in the basement of the Ross Technology Center. Refunds will be granted in the form of a credit to the student's account.

Add-Drop Policy

Students who drop a course during the one-week "add/drop" period in the fall and spring semesters and the first three days of summer sessions receive a 100% refund of the tuition and associated fees for that course. Please note any course that meets for less than the traditional semester length, i.e., 15 weeks, has a pro-rated add/drop period. There is no refund for non-attendance.

Withdrawal Policy

A student may withdraw from a course only during the semester in which s/he is registered for that course. The withdrawal period is the second through twelfth week of the Fall and Spring semesters and the second through ninth week of twelve-week Summer courses. This period is pro-rated for shorter-length courses, usually 75 percent of course meeting times; please check with the Registration Office. To withdraw from a course, a student must complete and submit the appropriate course withdrawal form, available at the Registration Office. This process must be completed either in person or by using SMCC e-mail accounts.

Plagiarism Statement

If an instructor suspects that a student has knowingly committed a violation defined in the Maine Community College System Policy on Student Grade Appeals and Academic Misconduct, the instructor has the authority to review the alleged misconduct and determine the grade that the student should receive for the assignment and the course. The instructor may assign a failing grade for the assignment or course and may require the student to complete additional work for the course. The instructor may consult with the department chair and/or the College's chief academic officer prior to making such decisions. If a student seeks to challenge an instructor's determination, the student should submit a grade appeal. Grade appeal forms are available in the Advising Office on the South Portland Campus or in the administrative offices in the Learning Commons on the Midcoast Campus. An instructor may also refer the matter to the College's disciplinary officer for review under the procedures of the MCCS Student Code of Conduct