Graduate Course Syllabus

IT 548: Information Security

Center: Online

Course Prerequisites

None

Course Description

This course provides students hands-on information security training as future executives, network professionals, system administrators and consultants. It explores the basic concepts in information security policies, models, and mechanisms for secrecy, integrity, and availability. Topics include approaches in an organization to prevent, detect and recover from the loss of information; cryptography and its applications; and security in computer networks and distributed systems.

Course Outcomes

- Understand the tradeoffs between achieving business objectives and securing business information
- Recent concerns of information security among business, governments, and users
- Understand the mind and practice of a Chief Security Officer
- How to become a Chief Security Officer
- The range of professional security certificates
- The certified information Systems Security Professional (CISSP) certificate
- Viruses and other malicious software, its detection, control and prevention
- Cryptology, historical and modern ciphers, public key cryptography, and digital authentication
- Internet browser, server and protocol securities: IPEC, SSL, VPN and factor to consider in outsourcing
- Firewall, intrusion prevention and honey pot, and computer forensics
- Risk assessment and control in information security management
- Ethical, social and legal issues in information security management

Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through SNHU's online bookstore, MBS Direct, rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

Information Security Illuminated

Solomon, M. & Chapple M.

Boston: Jones and Bartlett Publishers

2005

ISBN: 978-0-7637-2677-5

MBS Direct SKU #: 694160

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place in Blackboard on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions forum in Blackboard so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	10	20	200
Journals	8	17	136
Class Wikis	3	20	60
Self-Quiz: Chapter 1	1	20	20
Security Risk Assessment Paper	1	150	150
Course Project: Proposal	1	150	150
Course Project: Technical Paper	1	250	250
		Total Course Points:	966

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

University Grading System: Graduate

	Total Points:	966		
Grade	**Numerical Equivalent**	**Points**	**Points Equivalent**	
			Lower	*Upper*
A	93-100	4.00	898	966
A-	90-92	3.67	869	897
B+	87-89	3.33	840	868
B	83-86	3.00	802	839
B-	80-82	2.67	773	801
C+	77-79	2.33	744	772
C	73-76	2.00	705	743
F	0-72	0.00	0	704
I	Incomplete			
IF	Incomplete/Failure*			
W	Withdrawn			

*Please refer to the policy page for information on the incomplete grade process.

Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Course Information area in the Assignment Guidelines and Rubrics folder.

Weekly Assignment Schedule

The Learning Modules area in Blackboard contains one module folder for each week of the course. All reading and assignment information can be found in the folders. Assignments and discussion board posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module in Blackboard.

Module	Topics and Assignments
1	An Introduction into the Study of Computer and Network Security
	Reading: Information Security, Chapters 1 and 2
	1-1 Discussion: Getting Started
	1-2 Self-Quiz: Chapter 1
	1-3 Self-Quiz: Chapter 2
	1-4 Course Project: Proposal Draft

2	Administration of Security in Business Organizations
	Reading: Information Security, Chapters 3 and 4
	2-1 Discussion: Separation of Privileges
	2-2 Risk Management Practices Journal: Business Continuity and Disaster Recovery Plan
	2-3 Self-Quiz: Chapters 3 and 4
	2-4 Security Risk Assessment Paper
3	Security Incidents and Attacks on Information Assets
	Reading: Information Security, Chapter 7
	3-1 Discussion: Recognizing and Reacting
	3-2 Risk Management Practices Journal: Systems Vulnerabilities
	3-3 Self-Quiz: Chapter 7
	3-4 Course Project: Proposal Final Draft
4	Cryptographic Systems and Using Cryptography in Security
	Reading: Information Security, Chapter 5
	4-1 Discussion: Code Signing
	4-2 Risk Management Practices Journal: Digital Certificates
	4-3 Self-Quiz: Chapter 5
	4-4 Security Risk Assessment Paper
5	Internet Communication Protocol and Firewall Technology
	Reading: Information Security, Chapters 6 and 8
	5-1 Discussion: Firewall Topology
	5-2 Class Wiki: Firewall Rule Base
	5-3 Self-Quiz: Chapters 6 and 8
	5-4 Security Risk Assessment Paper
6	Basic Operating System Security in Windows and Linux
	Reading: Information Security, Chapters 9 and 10
	6-1 Discussion: Monitoring Tools
	6-2 Risk Management Practices Journal: Hardening an OS
	6-3 Class Wiki: Security Recommendation Policies
	6-4 Self-Quiz: Chapter 9 and 10
	6-5 Course Project: Course Project Status
7	Develop, Plan, and Maintain Effective Security Measures
	Reading: Information Security, Chapter 11
	7-1 Discussion: Course Project Status Check
	7-2 Risk Management Practices Journal: Security Audits
	7-3 Class Wiki: Logging Mechanisms
	7-4 Self-Quiz: Chapter 11
	7-5 Course Project

8	Retain Security Control over Networks and Systems
	Reading: Information Security, Chapter 12
	8-1 Discussion: Recognizing Attacks
	8-2 Risk Management Practices Journal: Cracker Control
	8-3 Self-Quiz: Chapter 12
	8-4 Course Project
9	Concepts in Intrusion and Intrusion Detection
	Reading: Information Security, Chapter 13
	9-1 Discussion: Intruders and Implications
	9-2 Risk Management Practices Journal: Intrusion Detection Systems (IDS)
	9-3 Self-Quiz: Chapter 13
	9-4 Course Project: Technical Paper
10	Scanning a System to Assess Vulnerabilities
	Reading: Information Security, Chapter 14
	10-1 Discussion: Project Presentation
	10-2 Risk Management Practices Journal: Security Scanners
	10-3 Self-Quiz: Chapter 14

Attendance Policy

Online students are required to submit a graded assignment/discussion to Blackboard during the first week of class. If a student does not submit a posting to the graded assignment/discussion during the first week of class, the student is automatically withdrawn from the course for non-participation. Review the full attendance policy.

Late Assignments Policy

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the full late assignment policy.

SNHU College of Online and Continuing Education Student Handbook

Review the student handbook.

Diversity and Disability Statement

The College of Online and Continuing Education (COCE) at SNHU values diversity and inclusion. SNHU strives to create inclusive and welcoming academic environments. If there are aspects of the instruction or design of this course that present barriers to your inclusion, please notify the Disability Resource Center (DRC) as soon as possible. We will work with you and your instructor to address needs and concerns. We encourage all students with known or suspected physical, medical, sensory, psychiatric, and/or learning disabilities to register with the Disability Resource Center (DRC) in order to assess learning needs and take advantage of available academic accommodations and support services.

SNHU does not discriminate on the basis of race, color, national origin, sex, disability, age, religion, citizenship, marital status, gender identity or expression, sexual orientation, veteran/military status, or genetic information in its programs and activities. Requests for disabilities accommodations within COCE should be directed to:

Disability Resource Center (DRC)

(866) 305-9430

(877) 520-8916 (fax)

drc@snhu.edu

We welcome COCE students, faculty, and staff to consult with the Disability Resource Center (DRC) on disability-related questions or concerns. We look forward to hearing from you.

Complaints regarding discrimination and accommodations should be directed to:

(603) 645-9664

(603) 645-9717 (fax)

adacompliance@snhu.edu

Academic Honesty Policy

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the full academic honesty policy.

Copyright Policy

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the full copyright policy.

SNHU College of Online and Continuing Education Withdrawal Policy

Review the full withdrawal policy.

Southern New Hampshire University Policies

More information about SNHU policies can be found on the policy page.

Assessment Calibration and Student Work Samples

For the purpose of continuous improvement of our educational training, Southern New Hampshire University's College of Online and Continuing Education may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you have any questions or concerns, contact your advisor. If you would like to withdraw permission for use of your work, please contact the assessment calibration administrator at assessmentcalibration@snhu.edu. See this document for more information.