



Course Information

Course Title	Firewalls and Network Security
Course Prefix, Num. and Title	ITSY 2301 – Firewalls and Network Security
Division	Technology & Business
Department	Computer Science
Course Type	WECM Course
Course Catalog Description	Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities.
Pre-Requisites	ITSY 1342 & grade of “C” or better in ITCC 1440 or ITCC 1476
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours:	3:2:2
Lab/Other Hours	
Equated Pay Hours	3
Lab/Other Hours Breakdown: Lab Hours	2
Lab/Other Hours Breakdown: Clinical Hours	0
Lab/Other Hours Breakdown: Practicum Hours	0
Other Hours Breakdown	0

Approval Signatures

Title	Signature	Date
Prepared by:		
Department Head:		
Division Chair:		
Dean/VPI:		
Approved by CIR:		

Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

- Introduction to Network Security
- Types of attacks
- Firewall concepts and terminology
- Encryption
- VPN
- Security standards and policies
- Physical security
- Intrusion-detection systems

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:

1. Demonstrate system security skills through firewall implementation and testing
2. Use system tools, practices, and relevant technologies to implement a security plan
3. Evaluate practices, tools, and technologies to identify security breaches, sources of attacks, and protect mission critical systems
4. Establish an appropriate level of security based on an analysis of security logs
5. Use relevant tools to secure a network, respond to and follow up on various types of attacks.

Methods of Assessment:

- Individual/Group Projects
- Tests and Quizzes
- Lab Assignments
- Final Exam
- Skills Exam

Required text(s), optional text(s) and/or materials to be supplied by the student:

CCNA Security (210-260) Portable Command Guide, 2nd Edition -ISBN-13: 978-1-58720-575-0 or suitable firewall and network security textbook

- USB Flash Drive
- High-speed Internet Connection

Suggested Course Maximum:

14

List any specific or physical requirements beyond a typical classroom required to teach the course.

Computer for each student, ASA or firewall, Routers, switches, wireless routers, fiber cable tester, Ethernet cable testers.

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Comprehensive Skills Exam	20-25%
Comprehensive Final Exam	20-25%
Labs/Homework	25-30%
Chapter Tests	20-25%
Attendance/Participation	0-15%

- 90-100 – A
- 80-89 – B
- 70-79 – C
- 60-69 – D
- Below 69 -- F

Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
 - Critical Thinking
 - Communication
 - Empirical & Quantitative Skills
 - Teamwork
 - Social Responsibility
 - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist