Wharton County Junior College

Administrative Master Syllabus

Course Information

Course Title	Information Technology Security
Course Prefix, Num. and Title	ITSY 1342 - Information Technology Security
Division	Technology and Business
Department	Information Technology and Networking
Course Type	WECM Course
Course Catalog Description	Instruction in security for network computer hardware, software, virtualization, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Topics may adapt to changes in industry practices. Capstone course for Information Technology Security Specialist L1 Certificate
Pre-Requisites	ITSY 1300
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours: Lab/Other Hours	3:2:2
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
Department Head:	Muna Saqer, Comp Sci and IT&N Program Director	11/12/2025
Division Chair:	David Kucera, Technology & Business Division	11/12/2025
CAO:	Pam Millsap Digitally signed by Pam Millsap Date: 2026.11.11 15:06:53 -06'00'	

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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).

- National Institute of Standards and Technology (NIST) Guidelines
- Computer Security Fundamentals
- Computer Threats and Vulnerabilities
- Network Security
- Network Defense
- Backup and Disaster Recovery
- Security Products and Websites
- Encryption

Course Learning Outcomes:

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

- Apply National Institute of Standards and Technology (NIST) guidelines and other best practices
- Develop backup/recovery procedures to provide for data security
- Use network operating system features to implement network security
- Identify computer and network threats and vulnerabilities and methods to prevent their effects
- Use tools to enhance network security
- Use encryption techniques to protect network local and distributed systems data

Methods of Assessment:

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

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

- Ciampa, Mark. CompTIA Security+ Guide to Network Security Fundamentals, Cengage, (6th or latest edition)
- USB Flash Drive
- Online classes: webcam and internet access

Suggested Course Maximum:

20

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

- Computer (64-bit CPU) equipped with 12 GB RAM or more (running virtual machines), graphics card capable of supporting virtual machines, 19" or better monitor, and removable hard drive (500 GB or better) for each student and same for instructor.
- Instructor's machine needs 2 network interface cards (one to connect to WCJC network and one to connect to student pcs). And Data projector

- Cat 5 network cable, RJ-45 jacks and crimper for each student and 2 cable testers
- Router and cables to separate class from WCJC network
- Microsoft Windows 7 (or current version) (64 bit) operating system software for each pc (student and instructors)
- Microsoft Office suite for each pc (student and instructors)
- VMWare Workstation 15 (or current version) for each student and instructor
- Antivirus software for each pc

Course Requirements/Grading System:

Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Quizzes/Homework..... 0-10%
Labs 20-40%
Written Reports 0-10%
Oral Presentation 0-10%
Tests and Final Exam 25-50%

Grade System:
90-100% ..... =A
80-89% ..... =B
70-79% ..... =C
60-69% ..... =D
Below 60%.... =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