

Administrative Master Syllabus

Course Information

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| Course Title | Fundamentals of Networking Technologies |
| Course Prefix, Num. and Title | ITNW 1325 - Fundamentals of Networking Technologies |
| Division | Technology and Business |
| Department | Information Technology and Networking |
| Course Type | WECM Course |
| Course Catalog Description | Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. |
| Pre-Requisites | None |
| Co-Requisites | None |

Semester Credit Hours

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|--|-------|
| 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 |
|-------------------------|--|------------|
| Department Head: | Muna Saqer, Comp Sci and IT&N Program Director | 11-16-2023 |
| Division Chair: | David Kucera, Technology & Business Division | 11-16-2023 |
| VPI: | | |

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).

- Networking Concepts
- Network Installation and Configuration
- Network Media and Topologies
- Network Management
- Network Security

Course Learning Outcomes:

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

- Identify and use network transmission media
- Explain the OSI model
- Identify the characteristics of network topologies and protocols
- Identify the functions of a network operating system and distinguish between centralized, client/server, and peer-to-peer systems
- Distinguish between Local Area Networks (LANs) and Wide Area Networks (WANs) and identify the components used to expand a LAN into a WAN

Methods of Assessment: All outcomes will be assessed by one or more of the following:

Artifact Reflection Journal
Lab Assignments
Projects
Test Quizzes
Final Exam
Outside Certification Examination

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

- Microsoft Windows Networking Essentials. Daryl Gibson (Latest edition)
- CompTIA Network+ Study Guide. Lammle and Buhagiar. Publisher: WILEY. (Third or latest edition)
- CompTIA TestOut Network Pro. Publisher: TestOut. (Sixth or latest edition)
- 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.

Enough personal computers, network switches, Cat5e cable, and Cat5e cabling tools to create a small physical computer network. Will require Windows and /or Linux operating systems.



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

Tests and Comprehensive Final Exam (partial multiple choice, fill in the blank, etc. with a hands-on component)
Weekly Short Answer and Hands-on Lab Assignments

10% Attendance and participation
40% Lab Assignments
50% Examinations

Grading 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