



## Administrative Master Syllabus

### Course Information

<b>Course Title</b>	Information Storage and Management
<b>Course Prefix, Num. and Title</b>	ITNW 1335 - Information Storage and Management
<b>Division</b>	Technology and Business
<b>Department</b>	Information Technology and Management
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	An introduction to data storage-related technologies. Topics include data storage for cloud, Big Data, mobile, social media, and software-defined data centers. Provides a strong understanding of storage technologies and prepares students for advanced concepts, technologies, and processes.
<b>Pre-Requisites</b>	ITNW 1325
<b>Co-Requisites</b>	None

### Semester Credit Hours

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

### Approval Signatures

Title	Signature	Date
<b>Department Head:</b>	Muna Saqer, Comp Sci and IT&N Program Director	11-16-2023
<b>Division Chair:</b>	David Kucera, Technology & Business Division	11-16-2023
<b>VPI:</b>		



## **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).

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

- Information growth and challenges
- Define a storage system and its environment
- Review the evolution of storage technologies
- Introduce intelligent storage systems
- SCSI and Fiber Channel architecture
- Direct-attached storage (DAS)
- Storage area networks (SANs)
- Network-attached storage (NAS)
- Internet Protocol SAN (IP-SAN)
- Content-addressed storage (CAS)
- Storage virtualization
- Introduce business continuity
- Backup and Recovery
- Local Data Replication
- Remote Date Replication
- Storage security
- Storage infrastructure monitoring and management

### **Course Learning Outcomes:**

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

- Differentiate storage architectures and key data center elements
- Explain the components of storage infrastructure including subsystems, RAID and intelligent storage systems
- Demonstrate network technologies used in storage systems
- Outline storage the benefits components, management issues and requirements of Storage Area Networks (SANs)
- Create or adapt contingency plans for backup, replication and archiving
- Recommend information security requirements and solutions
- List SAN management issues and requirements

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

Individual/Group Assignments  
Individual/Group Projects  
Reading Assignments  
Presentations  
Lab/Assignments  
Quizzes/Tests/Exams



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

Information Storage and Management: Storing, Managing, and Protecting Digital Information; Author: EMC Cooperation; Publisher: Wiley (Latest edition)

**Suggested Course Maximum:**

18

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

- Current VMware Workstation for each student and instructor
- Antivirus software for each student and instructor
- Computer (64-bit CPU, 12 GB Ram, graphics cards, monitors, for each student
- Removable hard drive for each student and instructor (1 TB hard drive)
- Laser Printer
- Cat 5 network cable, RJ-45 jacks and crimper for each student and 2 cable testers
- Instructor needs 2 monitors, 2 NICs, & Data projector

Current lab equipment has the capability for 18 students

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

Labs:..... 20-40%  
 Homework: ..... 20-40%  
 Tests& Final Exam:..... 40-60%  
 Attendance & Participation: ..... 0-20%

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