

Administrative Master Syllabus

Course Information

Course Title	Advanced Cloud Concepts
Course Prefix, Num. and Title	ITNW 2327 - Advanced Cloud Concepts
Division	Technology and Business
Department	Information Technology and Networking
Course Type	WECM Course
Course Catalog Description	Focus on enterprise Cloud architecture, with advanced topics including multi-Cloud platforms inclusive of computing, networking, storage, monitoring and database. (Capstone course for Information Technology Network Cloud Specialist L1 certificate)
Pre-Requisites	ITNW 1309
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
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).

- Recognize the multi-Cloud platforms inclusive of computing
- Access, resource merging, rapid elasticity, and measured Cloud services
- Describe the steps that lead to the successful adoption of Cloud and the implications for organizations
- Define data infrastructure management processes and solutions
- Create, manage, and scale a server in a Cloud environment
- Define Cloud update operations, including security, updating, and backup operations
- Identify required IT skills, gradual/staged migration of Cloud elements
- Advanced understanding of networking, storage, monitoring, and database

Course Learning Outcomes:

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

- Design architectures to decouple infrastructure and reduce interdependencies
- Automate the deployment of Cloud resources
- Use Cloud provider tools to evaluate Cloud resource-based cost models and apply best practices to design for cost optimization
- Define and distinguish between Cloud infrastructure mechanisms such as virtual servers, Cloud-based security, storage, usage, and monitoring.
- Identify and differentiate between each of the multi-cloud platform models

Methods of Assessment:

Individual/Group Assignments

Individual/Group Projects

Reading Assignments

Presentations

Lab Works/Assignments

Quizzes/Tests/Exams

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

Cloud Computing: Concepts, Technology, and Architecture, Thomas Erl, Publisher: Prentice Hall or similar title (Latest edition)

Suggested Course Maximum:

18

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

- Instructor's PC needs two monitors, 2 NICs (one to connect to the student network and one to connect to WCJC network & Data Projection system projector)
- Computer with a dual or quad-core 64-bit processor, 16 GB RAM, 1 TB or larger hard drive, graphics card, and monitor for each student running Windows 10 or the current version of the operating system for each student and the instructor
- Microsoft Office 2019 or the current version licensed for each student and instructor
- Antivirus software for each student and instructor
- Laser Printer



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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%
Written Reports	0-10%
Oral Presentation.....	0-10%
Labs.....	20-40%
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