University of Arkansas - Fort Smith 5210 Grand Avenue P. O. Box 3649 Fort Smith, AR 72913-3649 479-788-7000

General Syllabus

CPSI 22433 Cloud Computing

Credit Hours: 3 Lecture Hours: 1 Laboratory or other types of Hours:4

Prerequisite: CPSI 21133 Microsoft Server Foundations, CPSI 21233 Linux Foundations, and

CPSI 21434 Configuring Network Devices

Effective Catalog: 2021-2022

I. Course Information

A. Catalog Description

Concepts and skills needed to analyze technical requirements to successfully execute workload migrations to a cloud provider and to troubleshoot capacity, automation, connectivity, and security issues related to cloud implementations.

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of this course, the student will be able to:

- 1. Analyze given technical requirements to successfully execute workload migrations to a cloud provider
- 2. Implement appropriate security controls given requirements.
- 3. Determine proper allocation of cloud provider resources and apply necessary changes, based on identified system performance data
- 4. Analyze capacity, automation, connectivity, and security issues to troubleshoot cloud provider implementations

B. University Learning Outcomes (ULO)

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will identify a problem or issue, then generate solutions/analysis of problems/issues evaluated.

Communication Skills (oral and written)

Students will compose coherent documents appropriate to the intended audience.

III. Major Course Topics

- A. Components of potential cloud solutions
- B. Preparing and testing pilot cloud deployments
- C. Identity and access management for cloud deployments
- D. Compute, memory, storage, and network sizing for cloud deployments
- E. Cloud system maintenance
- F. Proactively managing and maintaining cloud deployments
- G. Disaster recovery and business continuity considerations
- H. Troubleshooting