ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: CSC 2207 Cloud Foundations & Security

Date: Spring 2024

Credit Hours: 3

Complete all that apply or mark "None" where appropriate:
Prerequisite(s): None

Enrollment by assessment or other measure? ☐ Yes ☒ No
If yes, please describe:

Corequisite(s): None

Pre- or Corequiste(s): None

Consent of Instructor: ☐ Yes ☒ No

Delivery Method: ☒ **Lecture**   **2 Contact Hours** (1 contact = 1 credit hour)
                                     ☐ **Seminar**   **0 Contact Hours** (1 contact = 1 credit hour)
                                     ☒ **Lab**   **2 Contact Hours** (2-3 contact = 1 credit hour)
                                     ☐ **Clinical**   **0 Contact Hours** (3 contact = 1 credit hour)
                                     ☐ **Online**
                                     ☐ **Blended**
                                     ☒ **Virtual Class Meeting (VCM)**

Offered: ☐ **Fall**   ☒ **Spring**   ☐ **Summer**

CATALOG DESCRIPTION and IAI NUMBER (if applicable):
This course focuses on The Cloud Foundation certification and NIST standards for Cloud Computing. This class is ideal for students or professionals who have a role or interest in the use and management of internet-based services. The course covers Cloud computing, using and accessing the Cloud, security and compliance, implementing and managing cloud computing, and the evaluation of cloud computing. The student will sit for a vendor-neutral Cloud Computing Foundation exam.

ACCREDITATION STATEMENTS AND COURSE NOTES:
None

COURSE TOPICS AND CONTENT REQUIREMENTS:
1. Principles of Cloud Computing
2. Implementing and Managing Cloud Computing
3. Using the Cloud
4. Cloud Security, Identity, and Privacy
5. Evaluation of Cloud Computing

INSTRUCTIONAL METHODS:
1. Lecture
2. Readings
3. Presentations
4. Quizzes
5. Assessments

EVALUATION OF STUDENT ACHIEVEMENT:
Students must:
1. Participate in class discussions on Live Zoom sessions or demonstrate by work completed the recorded videos of the class were reviewed
2. Complete readings, assignments, quizzes, and other assignments that are given at the instructor's discretion
3. Ask questions about any misunderstood area either in class, during office hours, or with the tutor.

    A = 90 – 100
    B = 80 – 89
    C = 70 – 79
    D = 60 – 69
    F = 0 – 59

INSTRUCTIONAL MATERIALS:
Textbooks
Textbooks used in Cloud Foundations & Security are at the discretion of full-time faculty.
Part-time faculty members are to use the textbook designated for Cloud Foundations & Security by the Program Coordinator for Cybersecurity and the Dean of Workforce Development.

Resources
EXIN Cloud Computing Foundation
NIST Special Publications

Computer Applications:
1. Online Course Management Software
2. IVCC email account
3. Web Browser

LEARNING OUTCOMES AND GOALS:
Institutional Learning Outcomes
☒ 1) Communication – to communicate effectively;
☒ 2) Inquiry – to apply critical, logical, creative, aesthetic, or quantitative analytical reasoning to formulate a judgment or conclusion;
☐ 3) Social Consciousness – to understand what it means to be a socially conscious person, locally and globally;
☐ 4) Responsibility – to recognize how personal choices affect self and society.

Course Outcomes and Competencies
Outcome 1: Understand the Principles of Cloud Computing
Competency 1.1: Explain Cloud Deployment models and Cloud Service models
Competency 1.2: Explain the Cloud Computing Architectures
Competency 1.3: Understand the benefits and limitations of Cloud Computing

Outcome 2: Understand the components to implement and manage cloud environments
Competency 2.1: Explain the main components of a local cloud environment
Competency 2.2: Describe the principles of managing cloud services

Outcome 3: Explain Cloud Use
Competency 3.1: Discuss cloud access architecture
Competency 3.2: Explain how cloud computing can support the business process
Competency 3.4: Understand the Relationship of CSP and customers

Outcome 4: Understand Cloud Security, Identity, and Privacy
Competency 4.1: Discuss the Security Risks of Cloud Computing
Competency 4.2: Explain the mitigation measures for cloud risks
Competency 4.3: Understand how identity management for the cloud
Competency 4.4: Understand privacy and data protection in cloud computing

Outcome 5: Discuss how to Evaluate Cloud Computing in Business
Competency 5.1: Understand performance factors and management requirements of cloud computing
Competency 5.2: Explain how to evaluate service providers using performance, financials, and compliance