Montgomery County Community College
CIS 205
AWS Cloud Practitioner
3-2-2

COURSE DESCRIPTION:
This course is designed to develop a fundamental understanding of the AWS cloud computing platform independent of any specific technical role. Course topics include AWS Cloud concepts, core AWS services, security, architecture, database concepts, pricing, and support to build your AWS Cloud knowledge. This course will help students prepare for the AWS Certified Cloud Practitioner exam.

PREREQUISITE(S):
CIS 166: Introduction to Cloud Computing
CIS 111: CS1: Programming and Concepts
CIS 170: Introduction to Networking

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

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
1. Explain key definitions and concepts of the AWS Cloud computing model.	Lecture/Discussion Homework Assignments Assigned readings	Discussion/Questions Projects Tests/Quizzes
2. Analyze the financial benefits of the AWS Cloud for your organization's cost management.	Lecture/Discussion Homework Assignments Assigned readings	Discussion/Questions Projects Tests/Quizzes
3. Explain the AWS Well-Architected Framework and Shared Responsibility Model.	Lecture/Discussion Homework Assignments Assigned readings	Discussion/Questions Projects Tests/Quizzes
4. Describe examples of the core AWS services, including compute, network, database, and storage services.	Lecture/Discussion Homework Assignments Research Assigned readings	Discussion/Questions Research presentations Tests/Quizzes
5. Utilize AWS tools to configure and monitor Cloud resources.	Lecture/Discussion Homework Assignments Assigned readings	Hands-on lab simulations Projects Tests/Quizzes

6. Articulate scenarios where AWS Cloud services can provide solutions to business needs.	Lecture/Discussion Homework Assignments Assigned readings Hands-on lab simulations	Discussion/Questions Project presentations Tests/Quizzes Case Studies
7. Prepare for the AWS Cloud Practitioner exam.	Lecture/Discussion	Practice Tests Discussion

At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated results will be submitted to the Director of Educational Effectiveness. The benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria.*

SEQUENCE OF TOPICS:

1. Introduction to the Cloud and Cloud Platform Models
2. Differentiate between on-premises, hybrid-cloud, and all-in cloud models
3. The AWS Cloud value proposition
4. AWS account options, pricing models, pricing tools and billing.
5. Account management
6. AWS compliance and shared responsibility model
7. Global infrastructure and architectural principles
8. Key platform services and their common use cases
9. Accessing AWS resources through the AWS Console and command line
10. AWS core security and monitoring services
11. Deploying and operating in the AWS Cloud
    o Cloud Compute
    o Cloud Storage
    o Cloud Database
    o Cloud Networking
12. Balancing workloads
13. AWS Cloud migration
14. Sources of documentation or technical assistance
15. Cloud computing implementation case studies
16. Prepare for the certification exam

LEARNING MATERIALS:
AWS Certified Cloud Practitioner Study Guide with Online Labs: Foundational (CLF-C01) Exam, Authors: Ben Piper and David Clinton, Publisher: Sybex ISBN: 978-1119756705

COURSE APPROVAL:
Revised by: Marie Hartlein   Date: 12/1/2020
VPAA or designee Compliance Verification: Date: 4/27/2021

This course is consistent with Montgomery County Community College's mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.