Course Prefix and Number: CTEC 264   **Credit Hours:** 3-3-0

Course Title: Advanced Cloud Computing

Course Prerequisites: CTEC 263

Textbook(s): None

Course Description: This course provides a detailed overview of advanced cloud computing concepts and current cloud computing technologies. This overview includes, but is not limited to, the design, implementation, and administration of cloud computing models. Students will be introduced to current tools to analyze, troubleshoot, and protect cloud computing resources.

Learning Outcomes:
At the end of this course, the student will:
    A. describe various cloud resources, aspects of design, and business value;
    B. define and design secure cloud applications and architectures;
    C. interpret and select high-performing and scalable cloud solutions; and
    D. choose cost-effective cloud solutions.

To achieve the learning outcomes the student will or will be able to:
(The letter designations at the end of each statement refer to the learning outcome(s).)
1. explain the benefits and business value associated with cloud computing (A);
2. compare and contrast traditional computing models with cloud computing models; (A)
3. evaluate various cloud architecture design principles; (A)
4. apply appropriate security and compliance concepts; (B)
5. determine appropriate security options to be applied based on access patterns, user needs, and organization requirements; (B)
6. choose appropriate architecture and services that scale to meet performance requirements; (C)
7. select high-performing compute, network, storage, and database solutions for a workload; (C)
8. determine the most cost-effective compute, network, storage, and database services based on an organization's requirements; (D)
9. compare various pricing models used in cloud computing; (D);

Course Requirements:
- To pass the course, student must achieve a course average of 70% or above.
- Students must have access to a computer (not mobile device), Microsoft Office, and the Internet to complete the assignments. Computer, software, and the Internet are available to students on campus during scheduled computer lab times and in the Learning Commons located in the BPCC Library.
- Students are required to use BPCC's LMS and are encouraged to use the BPCC Library to research topics and employment opportunities.

Course Grading Scale:
- A = 90 - 100
- B = 80 - 89
- C = 70 - 79
- D = 60 - 69
- F = 0 – 59

Attendance Policy:
Each student is expected to attend class regularly; excessive unexcused absences constitute grounds for suspension. Refer to the student handbook for Attendance Policy.

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams and/or clinical fees.

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