Syllabus for ITM 720
Cloud Computing and Enterprise Applications

NOTE: This syllabus document contains the basic information for this course. The most current syllabus is available in the full course.

Prerequisites

None

Course Description

Leverage cloud services to streamline computing resources, deploy enterprise applications, improve user access and system reliability, and utilize advanced computing capabilities. Foundation concepts include virtualization, multi-tenant architecture, and software-defined networking. Examines the full range of services available to organizations along with deployment strategies, evaluation criteria, economic justification, and manageability.

Course Alignment with Program Outcomes

This course addressed the following competencies and program outcomes of the Master of Science in Information Technology Management.

- Competency E: Investigate and plan innovation solutions for business challenges
    - Program Outcome 14: Evaluate the impact of emerging technologies
    - Program Outcome 15: Analyze data to address organizational challenges and create competitive advantages

- Competency F: Engineer, develop, and deploy strategies for enterprise systems
    - Program Outcome 17: Develop appropriate data management technologies
    - Program Outcome 18: Create and deploy enterprise solutions in support of organizational goals

Course Learning Objectives

Upon completion of the course, you will be able to do the following:

1. Understand how cloud computing and enterprise applications can advance the mission of an organization and achieve organizational goals
2. Identify and describe the variety of mechanisms, technologies, and architectures used in cloud computing systems
3. Utilize cloud services, applications, and providers to solve a wide variety of problems and challenges faced by IT managers and organizations
4. Justify and adopt cloud technologies, applications, and services and effectively manage their transition into the IT function

Course Activities and Assessments

This course uses a variety of methods including discussions, projects, and knowledge checks.

Course Outline

The course is organized into the following units:

Unit 1 The Cloud from a Technical Perspective
        1.0 Introduction-Cloud Technologies and Architecture
        1.1 Fundamentals of Cloud Computing
        1.2 Cloud Computing Mechanisms
        1.3 Cloud Computing Architecture
        1.4 Working with Clouds
Unit 2 The Cloud from an Economic Perspective
        2.0 Introduction-The Economics of Cloud Services
        2.1 Characteristics of the Cloud from an Economic Perspective
        2.2 Strategy, Value, and the Economics of Demand and Capacity
        2.3 Production and Economics of Scale
        2.4 Time and the Economics of Timeliness
        2.5 Ancillary Topics and the Future of the Cloud
Unit 3 The Cloud from a Practitioner's Perspective
        3.0 Introduction-Adopting, Integrating, and Managing Cloud Services
        3.1 Making the Decision to Utilize Cloud Services
        3.2 Monitoring Cloud Operations
        3.3 Cloud Performance, Development, and Deployment

Grading

Assignments	Points
Discussions, 2 x 25	50
Knowledge Checks, 12 x 50	600
Interview Exercises and Discussions, 60 + 40 + 50	150
Projects, 2 x 100	200
Total	**1000**

Grade	Percentage	Points
A	90.0-100%	900-1000
A-	87.5-89.9%	875-899
B+	85.0-87.4%	850-874
B	80.0-84.9%	800-849
B-	77.5-79.9%	775-799
C+	75.0-77.4%	750-774
C	70.0-74.9%	700-749
C-	67.5-69.9%	675-699
F	0-67.5%	0-674