

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: ITP 295

Credits: 3

Course Title: Topics in Information Technology: Cloud Computing Concepts, Technology, and Architecture

Course Description: Provides an overview of cloud computing concepts and capabilities across various service models. Familiarizes students with use of vendor maintained applications and processes, and covers security and other challenges associated with cloud computing. Students learn how to configure and program cloud services, develop cloud-based software applications, and leverage technologies to build comprehensive end-to-end solutions on the cloud. Prerequisites: ITP 251 or permission of the instructor. Lecture 3 hours per week.

General Course Purpose: It may be used as an IT elective for any of the IT degree specializations.

Course Prerequisites and Co-requisites:

Prerequisites: ITP 251 - Systems Analysis and Design, Basic Programming Skills, or permission of the instructor

Course Objectives:

Upon completing the course, the student will be able to

- a. Use and apply current cloud computing concepts and practices;
- b. Identify and analyze problems or opportunities in the cloud computing paradigm;
- c. Define cloud computing requirements for developing IT solutions;
- d. Design and develop effective cloud computing solutions and integrate them into the user environment;
- e. Collaborate in teams to accomplish common goals;
- f. Create and implement effective project plans; and
- g. Communicate effectively and efficiently.

Major Topics to Be Included:

- a. Cloud Computing Overview
- b. Cloud Computing Mechanisms
- c. Cloud Security
- d. Cloud Computing Architecture
- e. Working with Clouds
- f. Introduction to Amazon Web Services
- g. Introduction to Microsoft Azure

Effective Date of Course Content Summary: November 3, 2015