J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: <u>CSC 215</u>   Credits: <u>3</u>

Course Title: <u>Computer Systems</u>

Course Description:

Examines the hierarchical structure of computer systems. Explores the representation of instructions and data, memory organization/structure, structure of a CPU, programming hierarchy and operating system interactions. Lecture 3 hours. Total 3 hours per week. 3 credits

General Course Purpose:

CSC 205 or CSC 215 is intended to fulfill a first course in Computer Architecture, Organization and Systems in the CS curriculum. The focus of CSC 215 is on Systems with a sampling of Architecture and Organization content.

Course Prerequisites/Corequisites:

CSC 221

Course Objectives:
Upon completing the course, the student will be able to:

Digital Logic, Digital Systems, and Digita
  Design a simple combinational circu
  Apply Boolean functions, algebraic t
  combinational circuits

Machine level data representations
  Describe how numbers, text, and other analog or discrete information can be represented in digital form
  Interpret computer data representation of unsigned integer, signed integer (in 2's complement form) and floating-point values in the IEEE-754 formats

Memory model

Explain how high-