J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: CSC 200 **Credits:** 3

Course Title: Introduction to Computer Science

Course Description (including lecture hours, lab hours, total contacts)

Provides a broad introduction to computer science and the work of computer scientists. Discusses architecture and the function of computer hardware, including networks and operating systems, data and instruction representation and data organization. Covers software, algorithms, programming languages, team dynamics, research resources, social and ethical aspects of technology, and software engineering. Discusses artificial intelligence, and theory of computation. Includes a hands-on component with oral and written presentations. Lecture 3 hours per week.

General Course Purpose
The course provides a broad introduction to computer science and the work of computer scientists.

Course Prerequisites/Corequisites (E*ntry-level competencies **required** for enrollment*)
Prerequisite: MATH 166 or the equivalent with a grade of C or better.

Course Objectives (Each item should complete the following sentence.)
Upon completing the course, the student will be able to:

a. Identify current research and application areas as well as career opportunities
b. Discuss architecture and the function of computer hardware, including networks and operating systems, data and instruction representation and data organization.
c. Discuss software, algorithms, and programming languages.
d. Understand the importance of team dynamics, research resources, social and ethical aspects of technology, and software engineering.
e. Discuss artificial intelligence, and theory of computation. architecture and the function of computer hardware, including networks and operating systems, data and instruction representation and data organization.
f. Prepare a hands-on component with oral and written presentations.

Major Topics to be Covered

a. Current research, application area, and career opportunities in computer science
b. Computer architecture and the function of computer hardware
c. Networks and operating systems
d. Data and instruction representation and data organization
e. Software, algorithms, programming languages
f. Team dynamics, research resources, social and ethical aspects of technology
g. Software engineering
h. Artificial intelligence
g. Theory of computation

Effective Date of Course Content Summary (Month, Date Year): February 11, 2009