

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

Course Prefix and Number: CSC 201

Credits: 4

Course Title: Computer Science I

Course Description: Introduces algorithm and problem-solving methods. Emphasizes structured programming concepts, elementary data structures, and the study and use of a high level programming language. Lecture 4 hours per week.

General Course Purpose:

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Determine if expressions and statements are syntactically correct in a high level language;
- b. Determine the semantics of a program in a high level language;
- c. Write a general algorithm solution of a problem in pseudocode that demonstrates a grasp of structured programming; and
- d. Write correct program of 200 to 500 lines of moderate difficulty in a high level language determining knowledge in course content topics.

Major Topics to Be Included:

- a. Computers and computer programs
- b. Top-down design of algorithms, structures, and objects
- c. Control structures in a high level language
- d. Simple data types in a high level language
- e. Arrays in a high level language
- f. Proper program methodology and debugging techniques

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