

**Course Objectives/Course Outline
Spokane Community College**

Course Title: Programming Principles II

Prefix and Course Number: CIS 283

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Apply object-oriented programming techniques for solving problems
- Create and instantiate classes
- Use collections for storage and retrieval
- Implement hierarchical class design to create extendable, scalable, and flexible applications

Course Outline:

I. Review of object-oriented programming techniques

- A. Methods
- B. Classes
- C. References
- D. Variable Scope
- E. Pre and Post Conditions
- F. Arrays – Searching and Sorting

II. Two-dimensional arrays

III. Inheritance, Interfaces and polymorphism

IV. Exceptions

- A. Programmatic (pro-active)
- B. Try/catch (reactive)

V. Recursion

VI. Linked Lists