

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

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**Course Title:** Agile Software Development

**Prefix and Course Number:** CIS 272

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**Course Learning Outcomes:**

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

- Understand Iterative and Incremental Development
- Become familiar with various agile programming methodologies
- Work in teams of developers with focused tasks
- Demonstrate the use of source code version and control
- Demonstrate the use of unit and functional testing of source code
- Understand and Demonstrate Test Driven Development Techniques
- Demonstrate the use of continuous integration

**Course Outline:**

- I. Agile Philosophy
  - a. Agile Manifesto
- II. Iterative and Incremental Development
  - a. History
  - b. Versus Waterfall method
  - c. Predictable vs. New Product Development
  - d. Risk-driven development
  - e. Client-driven development
  - f. Timeboxing / Planning Poker
- III. Agile Programming Methodologies
- IV. Version Control
  - a. Understand Version control
  - b. Use version control
- V. Testing
  - a. Unit Testing
  - b. Functional testing
- VI. Test Driven Development
  - a. Designing Algorithms through testing
- VII. Continuous Integration
  - a. Automation
  - b. Create a working product