

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

Course Prefix and Number: ITP 195

Credits: 4

Course Title: Python Programming I

Course Description

Provides students with knowledge of a popular software development tool, Python programming language. Users of spreadsheets, games, data quality tools and much more will learn to use Python to express rich yet flexible business rules in a lightweight syntax. Lecture 4 hours per week.

General Course Purpose

Can be used as an elective in the IST degree program

Course Prerequisites/Corequisites

none

Course Objectives

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

1. Analyze basic business problems and write effective computer programs.
2. Install and configure the IronPython distribution on Microsoft Windows.
3. Apply object-oriented programming principles to the computer programs.
4. Apply declarative and dynamic programming concepts to the computer programs.
5. Handle file input and output techniques within the computer programs.
6. Develop internet-oriented application development.
7. Integrate Python with C#, VB.Net and other Microsoft .Net Framework languages.

Major Topics to be Included

1. Install and configure IronPython
2. Syntax and conventions
3. Object-Oriented programming principles
4. Declarative and dynamic programming concepts
5. File input/output techniques
6. Internet-oriented application development
7. Interoperability with C#, VB.Net and other .Net Framework languages

Effective Date of Course Content Summary: 9/1/2009