Syllabus

Contact Information

Dr. Andy Felt

Department of Mathematical Sciences

University of Wisconsin-Stevens Point

Office phone: (715) 346-4207

Email: afelt@uwsp.edu

Course Description

Fundamental concepts of programming using a contemporary data analysis language. Topics include variables, conditional execution, functions and methods, iteration, strings, files, and data structures. Applications will be taken from the Healthcare Information Systems.

Course Objectives

- Learn the structures utilized in programming languages for decision making and repeated operations.

- Understand the need for differing types of data and the ramifications emerging from that need.

- Realize and experience the value of the re-use of code, from both efficiency of operation and of maintenance points of view.

- Make use of programming strategies to answer data inquiries posed by healthcare professionals.

Course Materials

Required Textbook

Python for Informatics: Exploring Information. Version 2.7.3. Charles Severance.

Course Activities and Assessments

Activities include textbook readings and video presentations. To assess your understanding of the materials, the following types of assessments will be used:

- Quizzes (in Brightspace D2L; immediate scoring)
- Self-review exercises (not submitted for evaluation)
- Lab assignments (programming in Python)
- Final Exam

Examinations

There will be a comprehensive final examination.

An early or makeup final exam will not be given unless there are extraordinary circumstances, as determined by the instructor. You **must** contact the instructor **before** the examination in order to be considered. Failing to do so will result in receiving a zero for that grade component.

Course Outline

These are the units of the course:

- Introduction and Preparation
- Introduction to Programming
- Introduction to Python
- Conditionals
- Tasks
- Iteration
- Strings
- Files
- Lists
- Dictionaries
- Tuples
- Application #1
- Application #2
- Application #3
- Final Exam

Course Policies

The News tool in D2L will be used as a means of communication. Please check it on a regular basis to keep current. The syllabus, schedule, and assignments are all subject to change. Any changes or need for additional information affecting the course as a whole will be communicated here.

Assignment and quiz grades will be available to you in the Grades tool of D2L.

Any necessary communication regarding assignments placed in the Dropbox will be posted through Dropbox feedback.

Legitimate emergencies do occur and may prevent the completion of course work by the designated time. Please inform your instructor as soon as possible when emergency situations occur and indicate your plans for completing the work. Extension of the completion time will be considered on an individual basis.

Grading

Your final grade will be based on your performance in the following activities:

Quizzes	30%
Homework Assignments	50%
Final Exam (comprehensive)	20%

Total   100%

Grading Scale

90–100% A
80–89% B
70–79% C
60–69% D
0–59%   F