**COURSE: WIIT – 7740 Python Scripting**

**DESCRIPTION OF COURSE**

This introductory level Python programming course teaches students how to analyze a problem and devise a program that solves the problem. Students learn Python syntax as they learn programming fundamental concepts such as constants, variables, and data types. Students will write python programs as they learn sequences, conditional logic and loops. Lab activities will include writing scripts to automate common repetitive tasks.

**STUDENT LEARNING OUTCOMES**

* 1. Understanding of process of analyzing a problem and writing a program to resolve it.
  2. Understanding of constants and variables in programming
  3. Understanding of different data types
  4. Understanding of control structures in programming
  5. Understanding of functions, methods, modules, and classes
  6. Basic understanding of object oriented programming
  7. Demonstrating the ability to create a program and debug the program
  8. Ability to write scripts to automate common repetitive tasks

**SOFTWARE**

Python Software (free download)

**TEXTBOOK, MANUALS, REFERENCES, AND OTHER READINGS**

All course materials are delivered in blackboard. All reading materials are available for free download from blackboard.

**UNITS OF INSTRUCTION**

* + - Lesson 0: Introduction
    - Lesson 1: Intro to Python + Input, Processing, and Output
    - Lesson 2: Conditional Statements and Boolean Logic
    - Lesson 3: Iterators and Generators
    - Lesson 4: Functions!
    - Lesson 5: Lists, Tuples, and String Manipulation
    - Lesson 7: Scripting of common operating system and file handling tasks
    - Lesson 8: Scripting of common operating system and file handling tasks