SECTION HEADING

CSCI 2170: Python Programming

Description

Python Programming provides an introduction to Python, a programming language that allows programs to be written more quickly and with less conceptual overhead. Topics include strings, variables, selection, iteration, functions, graphics, file processing, lists, dictionaries and recursion.

Credits

3

Prerequisite

CSCI 1102

Topics to be Covered

1. Introduction to scripting with Python

2. Data and definite loops

3. Parameters and graphics

4. Conditional execution

5. Program logic and indefinite loops

6. File processing

7. Lists

8. Dictionaries

9. Recursion

Learning Outcomes

1. Create code, run and debug Python programs.

2. Use strings for input and output of text.

3. Use integers and floating-point numbers in arithmetic operations.

4. Define, initialize and use variables with appropriate naming schemes.

5. Design code solutions using variations of selection and iteration.

6. Define functions with parameters and return values.

7. Design graphical output using a custom library.

8. Use logical operators to construct compound Boolean expressions.

9. Use string methods to manipulate strings.

10. Execute file-reading and file-writing code basic.

11. Construct lists, access items in those lists and use methods to manipulate lists.

12. Construct dictionary structures and use methods to manipulate dictionaries

Credit Details

Lecture: 3

Lab: 0

OJT: 0