MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

DEPT. CSCI **COURSE NUMBER: 2170**

NUMBER OF CREDITS: 3 **Lecture: 3 Lab: 0 OJT 0**

Course Title:
Python Programming

Catalog 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.

Prerequisites or Necessary Entry Skills/Knowledge:
CSCI 1102

FULFILLS MN TRANSFER CURRICULUM AREA(S) ***(Leave blank if not applicable)***

☐Goal 1: Communication: By meeting the following competencies:
☐Goal 2: Critical Thinking: By meeting the following competencies:
☐Goal 3: Natural Sciences: By meeting the following competencies:
☐Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
☐Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
☐Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
☐Goal 7: Human Diversity: By meeting the following competencies:
☐Goal 8: Global Perspective: By meeting the following competencies:
☐Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
☐Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
Introduction to scripting with Python
Data and definite loops
Parameters and graphics
Conditional execution
Program logic and indefinite loops
File processing
Lists
Dictionaries
Recursion

Student Learning Outcome
Create code, run and debug Python programs.
Use strings for input and output of text.
Use integers and floating-point numbers in arithmetic operations.
Define, initialize and use variables with appropriate naming schemes.
Design code solutions using variations of selection and iteration.
Define functions with parameters and return values.
Design graphical output using a custom library.
Use logical operators to construct compound Boolean expressions.
Use string methods to manipulate strings.
Execute file-reading and file-writing code basic.
Construct lists, access items in those lists and use methods to manipulate lists.
Construct dictionary structures and use methods to manipulate dictionaries

Is this course part of a transfer pathway: Yes ☐ No ☒
***If yes, please list the competencies below**

Revised Date: 1/18/2022