Alexandria Technical and Community College

AIDA 1405: Python I

A. COURSE DESCRIPTION

Credits: 4
Lecture Hours/Week: 4
Lab Hours/Week: 0
OJT Hours/Week: *.*
Prerequisites: None
Corequisites: None
MnTC Goals: None

The course covers the basics of Python programming and general computer programming concepts and techniques, using materials provided by Cisco Networking Academy. Python I was developed by the OpenEDG Python Institute to enhance, develop, and support professional careers in Python programming and related technologies. Python I prepares learners for the PCEPTM Certified Entry-Level Python Programmer. The PCEPTM certification (Exam PCEP-30-0x) is a professional credential that measures the candidate’s ability to accomplish coding tasks related to the essentials of programming in the Python language.

B. COURSE EFFECTIVE DATES: 05/02/2024 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Apply Python I terminology.
2. Apply Python concepts.
3. Apply Python definitions.
4. Apply basic Python syntax.
5. Apply appropriate Python semantics.
6. Apply appropriate runtime environment.
7. Understand and apply literals, variables, numeral systems, operators, and data types.
8. Perform basic input/output (I/O) operations.
9. Control flow: conditional execution and loops © 2024 Cisco and/or its affiliates.
10. Implement data collections: lists, tuples, dictionaries, and strings.
11. Understand and apply functions.
12. Recognize and apply exceptions.
13. Apply appropriate troubleshooting methods
14. Apply appropriate debugging procedures.

D. LEARNING OUTCOMES (General)

1. Understand Python’s coding language foundation structure.
2. Comprehend Python’s input/output methods used to handle information.
3. Explain Python’s flow control/looping features.
4. Demonstrate Python’s integration and use in professional applications.
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted