

**I. COURSE INFORMATION**

- A. Computer Science 106 Introduction to Python Programming
- B. 3 credit hours
- C. Lambert, Kenneth. *Fundamentals of Python First Programs*. 1<sup>st</sup> ed. Massachusetts: Cengage, 2011
- D. Prerequisites: None

**II. COURSE DESCRIPTION**

This is an introductory course in programming in the Python programming language using a Java-based version of the language. Python is a powerful scripting language that can be used to automate system administration, create powerful web pages, develop mobile applications, and more. This course is an introduction to Python and introduces many beginner programming concepts using media manipulation. Note: Although no previous programming experience is required, students must have access to a computer running Java or access to the Internet to allow the user to download Java.

**III. LEARNING OUTCOMES**

- A. Explain the concept of functions
- B. Describe the meaning of I/O streams
- C. Explain the concept of arrays
- D. Identify strings
- E. Compare and identify pointers and dynamic arrays
- F. Summarize the basic steps involved in declaring, initializing, loading, and searching arrays

**IV. MAJOR CONTENT AREAS**

- A. Microsoft introduction to computer programming
- B. Text, files, networks and databases
- C. Multimedia and web manipulation
- D. Functional and object-oriented programming

**I. ASSIGNMENTS** (may include but are not limited to)

- A. Microsoft reading assignments
- B. Programming exercises
- C. Simulation exercises
- D. Discussions
- E. Chapter examinations

**II. EVALUATION METHODS** (may include but are not limited to)

- A. Quizzes
- B. Assignments
- C. Simulations
- D. Final exam