THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Introduction to Computer Programming in Python

CSE 1224

Credit Hours:
3.00

Course Levels:
Undergraduate (1000-5000 level)

Course Components:
Lecture
Lab

Course Description:
Introduction to computer programming and to problem solving techniques using computer programs; programming lab experience.

Prerequisites and Co-requisites:
Prereq: Math 1120, 1130, 1140, 1148, 1149, 1150, or 1151, or Math Placement Level M.

Course Goals / Objectives:
- Be competent with using basic coding features provided by high-level imperative programming languages
- Be competent with writing computer programs to implement given simple algorithms
- Be familiar with analyzing simple real-life problems and choosing appropriate algorithms for their solution
- Be familiar with using basic data structures such as lists, tuples and dictionaries in simple programs
- Be familiar with using functions, methods and classes to help produce well-structured programs
- Be familiar with reading and programming for APIs.
- Be familiar with working in a window-based computing environment.
- Be exposed to the services provided by an operating system
- Be exposed to data abstraction concepts and other more advanced programming ideas.

Course Topics:

- Course introduction and basic concepts
- Expressions and Types; basic I/O
- Lists, Tuples and Dictionaries
- Flow of control and Boolean expressions
- Defining functions
- File I/O
- Classes and objects
- Midterms and exam reviews

Designation:

Elective