This course aims to provide an intensive hands-on introduction to the Python scripting language. Topics include the basic Python language syntax, variable declaration, basic operators, programme flow and control, defining and using functions, file and operating system interface. Specific key features of the Python scripting language such as object-oriented support, functional programming support, lambda function, list comprehension, high level dynamic data types, embedding within applications, module creation etc. will be highlighted. Special topics include using Python for web/data access, animation, as well as using Python to develop a web crawler.

Advisory note: Students are advised to have basic programming experience before taking this course.

Grade Descriptor:

A

EXCELLENT – exceptionally good performance and far exceeding expectation in all or most of the course learning outcomes; demonstration of superior understanding of the subject matter, the ability to analyze problems and apply extensive knowledge, and skillful use of concepts and materials to derive proper solutions.

B

GOOD – good performance in all course learning outcomes and exceeding expectation in some of them; demonstration of good understanding of the subject matter and the ability to use proper concepts and materials to solve most of the problems encountered.

C

FAIR – adequate performance and meeting expectation in all course learning outcomes; demonstration of adequate understanding of the subject matter and the ability to solve simple problems.
D

MARGINAL - performance barely meets the expectation in the essential course learning outcomes; demonstration of partial understanding of the subject matter and the ability to solve simple problems.

F

FAILURE - performance does not meet the expectation in the essential course learning outcomes; demonstration of serious deficiencies and the need to retake the course.

Equivalent Offering:
Units: 2 (Min) / 2 (Max) / 2 (Acad Progress)
Grading Basis: Graded
Repeat for Credit: N
Multiple Enroll: N
Course Attributes:

Topics:

COURSE OUTCOMES

Learning Outcomes:

1. Be able to write, compile and execute Python programs;
2. Be able to make use of Python's object-oriented methodology;
3. Be able to design and create applications using Python modules;
4. Be able to develop embedded applications using Python;
5. Be able to use Python for database and web access;
6. Be able to use Python for some simple computer animation;
7. Be able to apply Python for creating web crawlers;
Course Syllabus:
This course aims to provide an intensive hands-on introduction to the Python scripting language. Topics include the basic Python language syntax, variable declaration, basic operators, program flow and control, defining and using functions, file and operating system interface. Specific key features of the Python scripting language such as object-oriented support, functional programming support, lambda function, list comprehension, high level dynamic data types, embedding within applications, module creation etc. will be highlighted. Special topics include using Python for web data access, animation, as well as using Python to develop a web crawler.

Assessment Type:
Others : 100%

Feedback for Evaluation:
1. Course evaluation and questionnaire
2. Results of assignments and examination
3. Question-and-Answer sessions during class
4. Student consultation during office hours or online

Required Readings:

Recommended Readings:

OFFERINGS
1. CSCI2040  
   Acad Organization=CSD; Acad Career=UG

COMPONENTS
LAB : Size=30; Final Exam=N; Contact=2
LEC : Size=30; Final Exam=Y; Contact=2

ENROLMENT REQUIREMENTS
1. CSCI2040  
   Enrollment Requirement Group:
   Not for students who have taken CSCI1040/AIST1110

   New Enrollment Requirement(s):
   Exclusion = no change
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