

Bridge Course

Python Programming Language

Class: SE – IT (A&B)

Date: 02-07-2018

Gap Identification:

- Subjects like Data Structures from academics providing only core implementation of Abstract Data Types(ADT's)
- Python will enhance scope to implement the ADT's easily using inbuilt plugins designed with number of methods
- To design GUI based applications with database connectivity, there is no scope in academic courses. So the same can be easily done using python programming language
- Scope to learn alternate object oriented programming language to Java Programming language included in academic syllabus

Course Description:

This is an introductory and semi advanced course designed for any student interested in using computation to enhance their problem solving abilities. No prior experience in programming is necessary actually. Students will use their problem solving abilities to implement programs in Python.

Prerequisites:

No explicit prerequisite course work is required, but students are expected to have an experience to use personal computer.

Course Objectives:

1. Develop a basic understanding of programming and the Python programming language.
2. See the value of programming in a variety of different disciplines—especially as it relates to our other college courses.
3. Appreciate the value of experimentation.
4. To be comfortable with the fact that there is more than one right solution to solve a problem.

Course Outcomes:

Students will be able to,

1. Confident to learn any programming languages
2. Enhance problem solving ability
3. Use object oriented paradigms to design and develop applications
4. Enhance their learning in advanced python

Basic Skill Based Bridge Course (BBC)Plan

Python Programming Language

Sr. No	Module No.	Lesson No.	Topics Planned (Technology to be used)	Teaching Aids Required	Planned / Completion Date	Resource Book Reference	Remarks
1	Module 1	L 3.1	Introduction History , Features, Setting up Path, Working with Python	Whiteboard, Marker	18-7-18	1,2	
2		L 3.2	Basic Syntax, variable and Data Types , Operator	Whiteboard, Marker	19-7-18	1,2	
3	Module 2	L 4.1	Conditional Statements IF , IF-else	Whiteboard, Marker	25-7-2018	1,2	
4		L4.2	Conditional Statements Nested if –else	Whiteboard, Marker	26-7-2018	1,2	
5		L5.1	Looping and Control Statements For , While	Whiteboard, Marker	1-8-2018	1,2	
6		L5.2	Looping and Control Statements Range, Break , Continue , Pass	Whiteboard, Marker	2-8-2018	1,2	
7	Module 3	L5.1	Data Structures String ,Lists	Whiteboard, Marker	8-8-2018	1,2	
8		L6.1	Data Structures Tuple, Set, Dictionary	Whiteboard, Marker	9-8-2018	1,2	
9	Module 4	L8.1	Function Defining a function, Calling a function, Types of functions,	Whiteboard, Marker	16-8-2018	1,2	
10		L8.2	Function Function Arguments, Global and local variables, Recursion		23-8-2018	1,2	
11	Module 4	L8.3	Module & Regular Expression Importing module , math module,	Whiteboard, Marker	29-8-2018	1,2	
12		L9.1	Module & Regular Expression random Module, packages, Composition	Whiteboard, Marker	30-8-2018	1,2	
13		L10.1	Input –Output Printing on screen, Reading data from keyboard,	Whiteboard, Marker	5-9-2018	1,2	
14	Module 4	L10.2	Input –Output opening and closing file reading and writing files , Functions	Whiteboard, Marker	6-9-2018	1,2	

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15	Module 5	L11.1	Exception Handling Errors, try-except-else ,	Whiteboard, Marker	12-9-2018	1,2	
16		L11.2	Exception Handling try-except , try-finally	Whiteboard, Marker	19-9-2018	1,2	
17	Module 6	L12.1	Advanced Python: Class and Instances	Whiteboard, Marker	26-9-2018	1,2	
18		L13.1	OOPS: Inheritance	Whiteboard, Marker	27-9-2018	1,2	
19		L13.2	OOPS: Polymorphism	Whiteboard, Marker	3-10-2018	1,2	
20			Test				
Remark: Course:		Syllabus Coverage:		Practice Session:		Beyond Syllabus:	
No. of (lectures planned)/(lectures taken):20/							

Note:

1. Plan date and completion date should be in compliance.
2. Course are required to be taught with emphasis Text books, digital references etc.

Reference Books:

1. Head First Programming ,Apress Publications
- 2.Head First Python ,Apress Publications

E-Books:<http://www.diveintopython3.net>

Digital Reference:

1. <http://www.pythontutor.com>
2. <http://www.learnpython.org>

Sd/-

Name & Signature of Faculty

Sudhir Dhekane

Sandip Banker

Sd/-

Signature of HOD

Dr. Rajesh Bansode

Sd/-

Signature of Dean(Academic)

Dr. R.R. Sedamkar