

Regulation GRBT-20	Godavari Institute of Engineering & Technology (Autonomous)	I B.Tech. II Sem (2 semester)			
Course Code	PYTHON PROGRAMMING CSE				
Teaching	Total contact hours - 48	L	T	P	C
Prerequisite(s): Knowledge of any programming language		3	0	0	3

Course Objective(s):

- Acquire knowledge on different data structures technique.
- To develop solutions for problems demonstrating usage of control structures, modularity, I/O and other standard language constructs.

Course Outcomes:

On completion of the course, the students will be able to-

CO-1: Handle different data structures.

CO-2: understand the use of control statements, function overloading, operator overloading in real time application

CO-3: Implement files using various file operations.

UNIT-1

Introduction to Python: History Features, Installing Python, Running Python, Comments, Operators, Identifiers, Variables, Indentation, Data Types: Initializing values to variables, Multiple assignment, Multiple statement in a single line.

UNIT-2

Types and Expressions: Types: Integers, Booleans, Strings. Expressions and order of evaluation control flow of Conditional Statements: if-statement, if-else statement, Nested-if statement, if-elif-else statement, Loops: for, while, Nested loops, Break statement, continue statement and Pass statement.

UNIT-3

Data Structures and Files: Data structures: Lists- operations, Slicing, Methods, Cloning. Tuples- creating tuple, updating, utility of tuples, Methods. Sets- creating. Dictionaries- creating, accessing values, modifying, deleting sorting, nested dictionaries. Sequences, Files- opening and closing Files, reading and writing files, File positions.

UNIT-4

Errors and Exception: Errors- Introductions to errors and Exception, Handling Exceptions, Multiple Except blocks.

Functions: Functions declaration, defination, function call, function parameters, variable scope, return statement, Lambada function, Anonymous functions.

Modules: Modules- import statement, name of modules, Making own module, python module.

UNIT-5

Object oriented programming: Object oriented programming- Class and objects, class method, self argument, __init()__ method, __del()__ method, public and private data member, class methods and static methods in Python, Regular expressions- match(), search(), sub(), findall() and finditer() function.

Text Books

1. Wesley J. Chun "Core Python Programming" Prentice Hall
2. Head First Python, 2nd Edition

PROFESSOR,
Dept. of Computer Science & Engg.
J. N. T. U. College of Engineering
RAJAHMENDRAVARAM, A.P. INDIA

U.S.N. Ragh

Head of the Department
Godavari Institute of Engineering & Technology
No-16, Chaitanya Knowledge City,
RAJAHMENDRAVARAM, A.P. INDIA

Reference Books

1. Mark Lutz "Programming Python, 4th Edit O'ReillyMedia
2. David Beazley and Brian K. Jones"PythonCokboo'Reilly

CO-PO Mapping:

(1: Slight [Low]; 2: Moderate[Medium]; 3: Substantial[High]; '-' : No Correlation)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-	1	-	-	-	-	-	-	-
CO2	3	1	-	-	2	-	-	-	-	-	-	-
CO3	-	2	-	-	3	-	-	-	-	-	-	-

R
 PROFESSOR
 Dept. of Computer Science & Engg
 J.N.T.U. College of Engineering
 KAKINADA - 533 009.

U.S.N. Reddy

[Signature]

[Signature]
 Head of the Department
 Computer Science & Engineering
 Godavari Institute of Engineering & Technology (A)
 NH-16, Chaitanya Knowledge City,
 RAJAMAHENDRAVARAM, A.P., INDIA-533 009