Syllabus

Introduction to Python Programming language

Duration: 31 hours

Module I

Introduction to Python, Variables, keywords, Identifiers, Basic Operators; String and basic operation; Conditional Execution: If statements, Loops: For loop, while loop, break and Continue; Functions-Defining your own function, Parameters, Functional Documentation, Variable number of arguments, Map, filter and Lambda function, Dir function.

Module II

Containers: List and List Methods, Sets, Tuples , Dictionaries, Arrays.

Module III

Modules: Need of modules, creating modules Loading the modules; The Object-Oriented Approach: Classes, Methods, Inheritance Objects; Exception Handling-Error and handling errors, Raise, Assert.

Text Book:

1.   Introducing Python- Modern Computing in Simple Packages – Bill Lubanovic, O, Reilly Publication
2.   Beginning Python: From Novice to Professional, Magnus Lie Hetland, Apress
3.   Practical Programming: An Introduction to Computer Science Using Python 3, Paul Gries, et al., Pragmatic Bookshelf, 2/E 2014

Reference Book:

1.   Introduction to Computer Science Using Python- Charles Dierbach, Wiley Publication

2.   Learning with Python ", Green Tea Press, 2002

Schedule of Section A

Session	Content	Time	Date
	Duration: 31 hours		
1.	Introduction to Python	03:00-04:00	17-Aug-21
2.	Basics of Variables, keywords, Identifiers	03:00-04:00	19-Aug-21
3.	Basic Operators	03:00-04:00	24-Aug-21
4.	String and basic operation	03:00-04:00	26-Aug-21
5.	Conditional Execution: If statements	03:00-04:00	31-Aug-21
6.	Loops: For loop, while loop	03:00-04:00	2-Sep-21
7.	Conditional Statement: break and Continue	03:00-04:00	7-Sep-21
8.	Concepts of Functions-Defining your own function	03:00-04:00	9-Sep-21
9.	Parameters, Functional Documentation	03:00-04:00	14-Sep-21
10.	Variable number of arguments	03:00-04:00	16-Sep-21
11.	Map, filter and Lambda function	03:00-04:00	21-Sep-21
12.	Dir function	03:00-04:00	23-Sep-21
13.	Revision of Module 1	03:00-04:00	28-Sep-21
14.	Lab session	03:00-04:00	30-Sep-21
15.	Containers: List and List Methods	03:00-04:00	5-Oct-21
16.	Basics of Sets	03:00-04:00	7-Oct-21
17.	Introduction of Tuples	03:00-04:00	12-Oct-21
18.	Introduction to Dictionaries	03:00-04:00	13- Oct-21
19.	Arrays	03:00-04:00	19-Oct-21
20.	Revision of Module 2	03:00-04:00	21-Oct-21
21.	Lab session of Module 2	03:00-04:00	26-Oct-21

22.	Modules: Need of modules	03:00-04:00	28-Oct-21
23.	creating modules	03:00-04:00	2-Nov-21
24.	Loading the modules;	03:00-04:00	9-Nov-21
25.	The Object-Oriented Approach: Classes	03:00-04:00	11-Nov-21
26.	Methods, Objects	03:00-04:00	16-Dec-21
27.	Inheritance, Abstraction	03:00-04:00	18-Dec-21
28.	Exception Handling-Error and handling errors	03:00-04:00	23-Dec-21
29.	Basics of Raise, Assert.	03:00-04:00	24-Dec-21
30.	Lab session of Module 3	03:00-04:00	1-Dec-21

	Report
Name of Activity	Introduction to Python Programming language
Date	16th August 2021 to 1st December 2021
Venue	BCA Classroom
Organized by	Computer Application Department
Resource Person	Dr. Kanika, Assistant Professor, MIMT
Beneficiary	BCA 3rd Semester Sec-A (45 Students)
Coordinator:	Mr. Himanshu Rastogi , Assistant Professor, MIMT
Objective	When students complete Intro to Programming with Python, they will be able to: • Build basic programs using fundamental programming constructs like variables, conditional logic, looping, and functions. • Python programming is intended for software engineers, system analysts, program managers and user support personnel who wish to learn the Python programming language. • Work with user input to create fun and interactive programs.
Content	With the initiative of IQAC, Mangalmay Institute of Management and Technology organized add on certification course on "Introduction to Python Programming language". The course enabled the students to defining basics of Python Programming, what it comprises and its importance in modern day organization. Day1: The session started with the discussion on introduction of python.

Day 2: In this session, Students learnt how to declare the variables and what is keyword and identifiers in python.

Day 3: In this interactive session, students knew about the basic operators in python.

Day 4: The resource persons started the session with discussion on string keyword and its basic operations applied on strings.

Day 5: In this session, learnt about conditional statements such as if, if-else, elif.

Day 6: The session wason looping statements..

Day 7: This session was focused on another condional statement that is break and continue.

Day 8: In this session, the resource persons discussed about concepts of functions.

Day 9: The resource persons discussed how to do parameters functions and functional documentation.

Day 10:This session starts with the variable number of arguments.

Day 11: This session discussed About the Map, filter and lambda functions.

Day 12: In this session, Dir functions were discussed.

Day 13: The resource persons discussed of the whole module 1 again.

Day 14: The resource person now comes to the lab session which required to do programming of python.

Day 15: In this session, resource person discussed the containers of python like List and List methods.

Day 16: Resource person discussed about the basics of sets.

Day 17: The Resource person discussed about the introduction of tuples.

Day 18: The session was about the dictionaries.

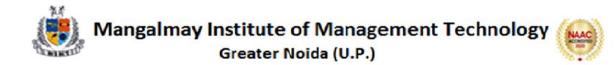|	
	Day 19: In this session, Arrays were discussed.
	Day 20: The module 2 revised by the resource person. So that students were clear their doubts.
	Day 21: The resource person now comes to the lab session related to module 2's programs
	Day 22: In module 3, Students learnt about the what is the need of modules in python.
	Day 23: In this session Students learnt how to create the modules in python.
	Day 24: Students learnt about the loading of modules in python.
	Day 25: This session discussed about the object oriented approach that is classes.
	Day 26: This session discussed about the methods and objects in python.
	Day 27: Students learnt more oops features that is inheritance and abstractions.
	Day 28: The resource person discussed how to handle the exception and errors.
	Day 29: In this session, basics of Raise and Assert were discussed.
	Day 30: Lab session was taken by the resource person..
	Day 31: The resource person revised or discussed the whole session of module 3
Outcome of Activity	• Understanding about the basic concepts of Python and Problem solving and programming capability. • The course teaches you the essential concepts of Python programming, and gives you an in-depth knowledge in data analytics, machine learning, data visualization, web scraping, and natural language processing.

List of Beneficiary

Section-A

Sr. No.	Roll No.	Student Name
1	R200992106001	AASHISH RAWAL
2	R200992106003	ABHISHEK KUMAR
3	R200992106004	ABHISHEK KUMAR THAKUR
4	R200992106005	ABHISHEK SHUKLA
5	R200992106009	AMAN RAJ
6	R200992106010	AMAN RAJ
7	R200992106011	AMAN TRIPATHY
8	R200992106012	AMIT
9	R200992106013	AMIT KUMAR
10	R200992106020	ANKITA DUTTA
11	R200992106022	ANSHIKA SINGH
12	R200992106026	BARDANI
13	R200992106028	DEEPAK KUMAR
14	R200992106029	DEEPAK KUMAR
15	R200992106030	DEEPANSHU SHARMA
16	R200992106035	GAGAN KUMAR
17	R200992106036	GAURABH KUMAR JHA
18	R200992106037	GAURAV KUMAR
19	R200992106039	HARIOM KUMAR
20	R200992106040	HARSH GARG
21	R200992106041	HARSH RAJ BHARDWAJ
22	R200992106044	JAGANNATH MAJUMDAR
23	R200992106046	KUBER SINGH
24	R200992106049	LAKSHYA BANSAL
25	R200992106050	MANISH
26	R200992106052	MANISH RAVI PALIWAL
27	R200992106061	MOHIT KUMAR
28	R200992106064	NITESH KUMAR
29	R200992106068	PARITOSH KUMAR JHA
30	R200992106073	PRIYA MISHRA
31	R200992106085	SACHIN SINGH
32	R200992106088	SAGAR VASHISHT
33	R200992106090	SAMIR KUMAR SAW
34	R200992106092	SANJAY
35	R200992106093	SANJEEV KUMAR
36	R200992106094	SANJEEV KUMAR
37	R200992106109	SUMIT KUMAR
38	R200992106112	TANISH NAGAR

39	R200992106114	TUSHAR BANSAL
40	R200992106119	VARUN KUMAR YADAV
41	R200992106121	VINEET KASHYAP
42	R200992106122	VINIT KUMAR
43	R200992106126	VISHAL KUMAR
44	R200992106129	VIVEK KUMAR
45	R200992106132	YOGITA KAUSHIK

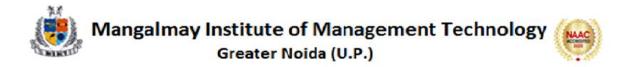## Resource Person Profile

Name: Dr. Kanika, Assistant Professor

Org: MIMT, Greater Noida

Research Area : Big Data, Big Data security

Core Skills: C++, DBMS, Java,

Qualification: MCA, PhD

Experience: 4 years

Certificate Template:

MANGALMAY
INSTITUTE OF MANAGEMENT & TECHNOLOGY

Certificate No. BCA/21-22/SP301/023

CERTIFICATE OF COURSE COMPLETION

This is to certify that

Amit

Student of BCA, Batch (2020-23) has successfully completed 30 Hours

Specialization Course on _Python_

from _Aug 2021_ to _Dec 2021_ with Grade _B+_

Course Coordinator   Head of the Department   Chairman

MANGALMAY
INSTITUTE OF MANAGEMENT & TECHNOLOGY

Certificate No. BCA/21-22/SP301/021

CERTIFICATE OF COURSE COMPLETION

This is to certify that

Yogita kaushik

Student of BCA, Batch (2020-23) has successfully completed 30 Hours

Specialization Course on Python

from Aug 2021 to Dec 2021 with Grade B+

Course Coordinator   Head of the Department   Chairman

MANGALMAY
INSTITUTE OF MANAGEMENT & TECHNOLOGY

Certificate No. BCA/21-22/SP301/075

CERTIFICATE OF COURSE COMPLETION

This is to certify that

Jagannath Majumdar

Student of BCA, Batch (2020-23) has successfully completed 30 Hours

Specialization Course on Python

from Aug 2021 to Dec 2021 with Grade B

Course Coordinator   Head of the Department   Chairman