

SWARNANDHRA
COLLEGE OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)

SEETHARAMPURAM, NARSAPUR-534280, WG- DT, AP

DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

TEACHING PLAN

Course Code	Course Title	Year / Sem.	Branch	Contact Hr./ week	Academic Year
20MC3TE6	Advanced Python Programming	II/I	MCA	6	2024-25

COURSE OBJECTIVES

1. Introduces OOP concepts in Python
2. Learn Network programming concepts in Python.
3. Understand Tkinter gadgets in Python.
4. Learn MySQL and Oracle with Python.
5. Discuss Flask frame work for Web application

COURSE OUTCOMES: Upon the successful completion of this course the student will be able

CO	Course Outcomes	Knowledge Level (K)#
CO1	Summarize Python OOP concepts	K2
CO2	Create Client Server applications.	K4
CO3	Develop GUI for Python applications	K3
CO4	Establish Database connectivity with Python programs	K3
CO5	Create Web application frame work	K4

Week . NO	OUTOCME	Blooms Level	TOPIC/ACTIVITY		Text Books	Contact HOURS	Delivery Method	
1 2 3	Summarize Python OOP concepts	K2	UNIT-I					PPT, Programmi ng Demonstra tion
			1.1	Creating classes	T1	1		
			1.2	Types of Variables	T1	1		
			1.3	Namespaces	T1	1		
			1.4	Types of methods	T1	1		
			1.5	Passing members of one class to another class	T1	1		
			1.6	Inner Classes	T1	1		
			1.7	Constructors in Inheritance	T1	1		
			1.8	Overriding	T1	1		
			1.9	Super method	T1	1		
			1.10	Types of inheritance	T1	1		
			1.11	Method of Resolution Order	T1	1		
			1.12	Polymorphism	T1	1		
			1.13	Operator Overloading	T1	1		
			1.14	Method Overloading	T1	1		
1.15	Method Overriding	T1	1					
5 6	Create Client Server application	K4	UNIT - II					Chalk & Board, Programmi ng Demonstra tion
			2.1	Protocol, Sockets	T1	1		
			2.2	Knowing IP sockets	T1	1		
			2.3	Reading source code of Web Page	T1	1		
			2.4	Downloading a Web Page from Internet	T1	1		
			2.5	Downloading an Image from Internet	T1	1		
			2.6	TCT/IP - Server	T1	1		
			2.7	TCT/IP Client, UDP - Server	T1	1		
			2.8	UDP-Client,	T1	1		
			2.9	File Server	T1	1		
2.10	File Client	T1	1					

			2.11	Two-Way Communication between Server and Client	T1	1			
			UNIT - III						
7 8 9	Develop GUI for Python applications	K3	3.1	GUI in Python	T1	1	Chalk & Board, Programming Demonstration		
			3.2	Root Window	T1	1			
			3.3	Fonts and Colors	T1	1			
			3.4	Working with Containers	T1	1			
			3.5	Canvas	T1	1			
			3.6	Frame	T1	1			
			Mid I Exam						
			3.7	Widgets	T1	1			
			3.8	Button Widgets	T1	1			
			3.9	Arranging Widgets in the Frame	T1	1			
			3.10	Label, Message	T1	1			
			3.11	Text, Scrollbar	T1	1			
			3.12	Check button, Radio button	T1	1			
			3.13	Entry, Spin box	T1	1			
3.14	List box, creating tables	T1	1						
			UNIT - IV						
10 11 12	Establish Database connectivity with Python programs	K3	4.1	Types of Databases used in Python	T1	1	Programming Demonstration & PPT		
			4.2	Installation of MySQL	T1	1			
			4.3	Installation of MySQL db	T1	1			
			4.4	working with MySQL Database	T1	1			
			4.5	using MySQL from Python	T1	1			
			4.6	Retrieving, Inserting rows	T1	1			
			4.7	Deleting and Updating rows from a table	T1	1			
			4.8	Creating tables from python	T1	1			
			4.9	working with Oracle 11g	T1	1			

			4.10	Installing Oracle Database Driver	T1	1		
			4.11	Working with Oracle Database	T1	1		
			4.12	Using Oracle Database from Python	T1	1		
			4.13	Stored Procedures	T1	1		
			UNIT - V					
13 14 15	Create Web application framework	K4	5.1	Basic Application Structure	T2	1	PPT, Programmi ng Demonstra tion	
			5.2	Initialization, Routes and View Functions	T2	2		
			5.3	Server Start up	T2	1		
			5.4	The Request-Response Cycle and Flask Extension	T2	1		
			5.5	The Jinja2 Template Engine	T2	1		
			5.6	Twitter Bootstrap Integration with Flask-Bootstrap	T2	1		
			5.7	Custom Error Pages	T2	1		
			5.8	Links, Static Files and Localization of Dates and Time with Flask-Moment	T2	1		
	Content beyond the syllabus		Exception Handling					
			MID EXAM 2					
			TOTAL CLASSES					62

TEXT BOOKS

1. Dr. R NageswaraRao, Core Python Programming, Dreamtech, 3rd Edition, 2019
2. Miguel Grinberg, Flask Web Development Developing Web Applications with Python, Oreilly, 2018

REFERENCE BOOKS

1. Michael Urban and Joel Murach, Python Programming, Shroff/Murach, , Halterman Python, 2016
2. Mark Lutz, Programming Python, O'Reilly, 4th Edition, 2010
3. Kenneth A. Lambert, The Fundamentals of Python: First Programs, Cengage Learning, 2011.
4. Allen B. Downey, Think Python, by, Orielly publishing, First Edition, 2017

ONLINE RESOURCES:

1. <https://docs.python.org/3/tutorial/index.html>
2. https://www.python-course.eu/advanced_topics.php
3. <https://www.oreilly.com/library/view/creating-apps-in/9781491947333/>


Faculty


Head of the Department


Principal