

S. No.	Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
								Sessional	Final Exam	Total
6	ESC-212	Python Programming Lab	ESC	2	0	0	4	50	-	50

Course Outcomes:

At the end of the course the student will be able to: -	
CO1	Apply the knowledge to create applications using the Python Programming Language.
CO2	Classify various data structures available in Python programming language
CO3	Implement testing and debugging of code written in Python
CO4	Apply the different functions to show various kinds of plots
CO5	Create solution for practical applications working in a team

List of Experiments of Python Programming Lab

S. No.	Experiments
1	Installing Python; basic syntax, interactive shell, editing, saving, and running a script
2	Develop a simple programs to understand operators and input/output operations
3	Develop programs to understand the control structures of python
4	Develop programs to learn different types of structures (list, dictionary, tuples) in python
5	Develop programs to learn concepts of functions scoping, recursion and list mutability.
6	Develop programs to understand working of exception handling and assertions.
7	Develop programs for data structure algorithms using python - searching, sorting and hash tables.
8	Develop programs to learn regular expressions using python.
9	Learn to plot different types of graphs using PyPlot.
10	Write a program with a function called rate_score() that rates a player's score. The function should have one parameter that receives a score , and should return a string based on the score, as follows: If the score is <100, the function should return "Nothing to be proud of." If the score is < 500 and >100, the function should return "Not Bad." If the score is > 500, the function should return "Great !"
11	Develop the Tic-Tac-Toe game where two players are playing. The program will check for the winning condition. If the whole board gets filled and no one wins, the result should be declared as "Tie" and the user can restart the game or quit the game.

Mini Projects

1	Develop a basic python project - Alarm clock
2	Develop a python based project for number system conversion using Tkinter library
3	Create a simple Hangman game in python
4	Control Arduino Development Board using python using PySerial Lib.
5	Development of Weather App
6	Development of Article Reader
7	Data Visualization model