



CLUSTER UNIVERSITY SRINAGAR
SYLLABUS (FYUP UNDER NEP 2020)
Offered by the Department of Information Technology,
Batch 2026 and Onwards

UG Semester 1st Skill Enhancement Course (SEC) Course
Title: Basics of Software Development Using Python-I

Course Code: UGITJIT126
Credits: 2 (Theory: 2, Practical: 2)
Contact Hrs: 120 (Theory: 60, Practical: 60)

Max. Marks:
Theory External: 60; **Min Marks:** 24
Continuous Assessment: 40; **Min Marks:** 16
Practical Internal: 20; **Min Marks:** 8
Practical external: 30; **Min Marks:** 12

Course Objectives: This course aims to introduce the learners to the basics of programming concepts and software development using Python language

Unit 1: Problem Solving: Definition and Steps, Algorithm, Flowchart, Representation of Algorithm and Flowchart with examples, Introduction to Programming languages, Language Translators. Introduction to Python: What is Python? Uses, History, Components of a Python Program: Data types, variables, Operators, comments.

PRACTICALS

Unit 2: How to download and install python, write and execute simple python program, Programs illustrating use of print statements and reading input from keyboard, programs illustrating use of arithmetic, relational, logical, assignment and bitwise operators.

Unit 3: Python control statements: Programs illustrating how to use if statement, if- else statement, if-elif-else statement, while loop, for loop, break, continue, pass statement and the loop else.

Unit 4: Python Functions: Programs illustrating function definition, function call, return values, scope of variables, default arguments, passing arguments by reference values, Python built-in functions.

References:

1. Python: The Complete Reference, Martin C Brown, Mc Graw Hill.
2. Learning Python, Mark Lutz, O'Reilly Publications.