



RCSS Global Research Academy

Transforming Curious Minds into Confident Researchers

PY-101

Basic Data Analysis Using Python

Practical Python for Research Data Analysis

Certificate Programme



**RCSS Global
Research Academy**

Transforming Curious Minds into Confident Researchers

**FOUNDER'S
BATCH**

**Python as Basic Data Analysis
Using Python**

PY-101

Python for Researchers

Practical Tools for Smarter Research

Certificate Programme



**6 Live
Interactive
Sessions**



**12
Hours**



Online

Learn how to use Python effectively for data analysis and enhance every stage of your research process.



Launch Fee

₹399

6 Live Interactive Sessions | 12 Hours | Online

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Why PY-101?

Python is becoming one of the most widely used tools for research and data analysis because it is open source, powerful, and widely accepted in academia.

Who Should Attend?

PhD Scholars

MBA Students

UG & PG Students

Faculty Members

Researchers

Working Professionals

Anyone interested in Python

After completing this course participants will be able to

✓ **Understand Python fundamentals**

✓ **Write simple Python programs**

✓ **Work with variables and data types**

✓ **Use decision making and loops**

✓ **Create reusable functions**

✓ **Read and write files**

✓ **Handle errors**

✓ **Build small real-life applications**

✓ **Be ready for Python Data Analysis and AI courses**

The outline emphasizes core beginner topics commonly covered in introductory Python courses while being compressed into a 12-hour practical format.

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Programme Structure

Module 1

Python Fundamentals
Introduction to Python
Python Environment
Variables and Data Types
Arrays

Module 2

Working with Research Data
Reading CSV Files
Reading Excel Files
DataFrames
Selecting Variables

Module 3

Descriptive Statistics
Mean
Median
Mode
Standard Deviation
Variance
Summary Statistics

Module 4

Working with Raw Data and Grouped Data
Frequency Analysis
Frequency Tables
Cross Tabulation

Module 5

Hypothesis Testing
One-Sample t-Test
Independent Samples t-Test
Paired t-Test

Module 6

Chi-Square & Practical Session
Chi-Square Test of Independence
Interpretation of Output
Research Reporting
Hands-on Practice with Real Data

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Why Choose RCSS Global Research Academy?

Practical Learning	Hands-on Coding	Research Focused
Learn Python by analysing real research datasets	Every concept is demonstrated live using Python with	Designed specifically for researchers, MBA students, PhD
Interactive Sessions	Affordable Learning	Continued Guidance
Small mentorship batches ensure personalised	High-quality training at an affordable fee with maximum	Guidance continues beyond the live sessions to help

Programme Details

Programme	PY-101: Basic Data Analysis
Commencement	Aug 26, 2026
Mode	Online – Google Meet
Duration	6 Live Interactive Sessions / 12
Timing	7:00 PM – 9:00 PM (IST)
Launch Fee	₹399 (<i>Conference Participants</i>)
Batch Size	Minimum 2 • Maximum 8
Certificate	Digital Certificate on Successful

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