

Descriptive & Inferential Data Analysis in Geology using Python

With a pre-requisite knowledge of "Introduction to python Programming in Geology" by TerraPy Education

Get Professional Certificate in just 24 hours

Course Fees

Indian Student

Master/Graduate : ₹ 3000 (INR)

Professional : ₹ 7000 (INR)

Foreign Student

Master/Graduate : \$ 125 (USD)

Professional : \$ 200 (USD)

Course Structure

- Core Python: Data structures, functions, file handling
- Data Analysis Tools: NumPy, Pandas, Modin, Matplotlib,
- Seaborn Statistical Concepts: Probability, distributions, hypothesis testing
- Geological Data Analysis: EDA, parametric/non-parametric tests, regression

Course Details

Course Days: Saturday and Sunday

Number of Classes: 8 classes (Online)

Course starts: 4th April, 2026

Course ends: 3rd May, 2026

Course Timings: 7 - 9:30 PM

Visit the link for REGISTRATION
: <https://forms.gle/njmVPwKokCqMAU496>
Registration started !!

SIMULATING
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An MSME & ISO 9001:2015 registered



DESCRIPTIVE ANALYSIS

Mean Gain Sca, Porosity
Failt Zony Denitabln

INFERENTIAL ANALYSIS

Mean Gain Sca, Porosity
Failt Zony Denitabln

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Brief Course Content

TerraPy Education Course Marathon 2026

A. Course 2: Descriptive and Inferential Data Analysis in Geology using Python (2026)

1. Participants must have some experience in Python Programming or have taken our course titled Introduction to Python Programming in Geology. Fundamentals of Python Programming will not be discussed in this course.
2. No prior experience in Statistics is necessary. However, familiarity to Frequency Tables, Frequency Diagrams, and Scatter Plots would be helpful.
3. Fundamental statistical concepts will be introduced using Geology examples from an undergraduate geology level.
4. Measurement, Scale, Pitfalls.
5. Descriptive Statistics and their physical significance in geological problems.
6. Probability (Discrete and Continuous) and Probability Distributions, examples of application of probability in Geology. Learn to generate probability distributions using Python programming.
7. Importance of Central Limits Theorem
8. Concepts of p-value, significance, and confidence limits
9. Normal Distribution, Standard Normal Form and its importance
10. Inferential Statistical Tests: Parametric Tests (z-test, t-test, F- test, ANOVA, χ^2 -test), and Non-Parametric Tests (Mann-Whitney, Krushal Wallis). Develop python programs for each statistical test and implement in geological problems to generate result statement/s meaningful to a geologist.
11. Sequence Analysis: Runs Test, and Linear Regression. Develop python programs for each statistical test and implement in geological problems to generate result statement/s meaningful to a geologist.
12. End of Course Examination.