

# Python - Introduction to Statistical Analysis







Course code: PYTHON\_STAT

The training provides the necessary introduction to the issue of machine learning in the Python programming language. During five days we will take over the issue of machine learning in practical cases with and without a teacher (supervised and unsupervised learning). The course takes the form of live coding and is therefore extremely intensive. We recommend the candidate to take the previous courses PYTHON\_DATAAN and PYTHON\_STATS. The course is intended primarily for mathematical statisticians, data analysts and anyone who wants to use the Python programming language to gain a basic statistical view of the data studied and thus be able to better understand and gain additional added value for their projects.

| Affiliate  | Duration | Course price | ITB |
|------------|----------|--------------|-----|
| Praha      | 5        | 28 500 Kč    | 50  |
| Brno       | 5        | 28 500 Kč    | 50  |
| Bratislava | 5        | 1 140 €      | 50  |

The prices are without VAT.

## Course terms

| Date   | Duration | Course price | Type         | Course language | Location         |
|--|----------|--------------|--------------|-----------------|------------------|
|   17.08.2026   | 5        | 24 225 Kč    | Telepresence | CZ/SK           | GOPAS Praha      |
|   17.08.2026   | 5        | 24 225 Kč    | Telepresence | CZ/SK           | GOPAS Brno       |
|   17.08.2026 | 5        | 969 €        | Telepresence | CZ/SK           | GOPAS Bratislava |

The prices are without VAT.

## Requirements per participant

- Knowledge of Python programming at the PYTHON\_INTRO course level

## Teaching methods

- Expert explanation with practical examples, exercises on computers.

## Study materials

- Online presentation of the subject matter and exercises.

## Course syllabus

- Introduction
- Understanding descriptive statistics
- Types of measurements
- Population and sampling
- Outliers
- Selection of Python statistics modules
- We start with Python statistics modules
- Calculation of descriptive statistics
- Calculation of central variance
- Calculation of variability
- Summary of descriptive statistics
- Calculation of correlation between data pairs
- Working with 2D data
- DataFrame
- Data visualization

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# Python - Introduction to Statistical Analysis

- Box charts
- Histograms
- Pie charts
- Bar charts
- X-Y charts
- Heat Maps maps
- Conclusion

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