

# INVITATION

## Introduction to Python for Data Analysis: Crash Course

Dear Postgraduate students and Researchers. In this 21<sup>st</sup> century, you need a much better and faster tool that can give you a cutting edge in these challenging technological times where new technology is getting ditched by something new at a very rapid pace.

**Date: 23 September 2022**

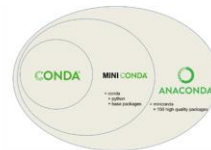
**Time: 09h30-15h00 (Venue: Teams)**

[Click here to join the meeting](#)

**RSVP to Dr N Mbatha on Tel: 035 902 6400 or  
email: mbathanb@unizulu.ac.za before 22 September 2022**

### Course content

- Python Installation and Setup
- Integrated Development Environments (IDEs)
- Python Programming Fundamentals
- NumPy Basics: Arrays and Vectorized Computation
- Getting Started with Pandas
- Data loading, storage, and File Formats
- Data Wrangling: Cleaning, Transform, Merge, Reshape, Aggregation, Group Operation, Resampling
- Descriptive Statistics
- Plotting and Visualisation
- Time Series Analysis and Image Processing
- Linear Regression and Curve Fitting
- Principal Component Analysis (PCA)



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*A NODE FOR AFRICAN THOUGHT*

