
AFRICAN CENTRE OF EXCELLENCE IN DATA SCIENCE (ACE-DS)

THE CALL FOR REGISTRANTS: PYTHON PROGRAMMING

The University of Rwanda-College of Business and Economics (UR-CBE) in the African Center of Excellence in Data Science (ACE-DS) offers Data Science short courses. ACE-DS wishes to inform academic staff from the University of Rwanda that it will provide python programming training from 18th to 22nd November 2024 at CAVM, Musanze. In this training, 30 trainees will be trained on python programming.

Overview of Python Programming short course

The course was developed by experts in Data Science and it will be delivered by experts in Data Science and Python Programming. The aim of this course is to equip professionals from the University with the skills needed for research and creating solutions to realized problems. This course will prepare new cadre of decision makers who can transform research findings to policy and programs.

This course is designed to equip faculty members at the University of Rwanda with a strong foundation in Python programming. Participants will learn introduction to data science, essential Python concepts, including variables, data types, loops, and more. The course also emphasizes data handling skills using powerful libraries like NumPy and pandas, with a focus on data cleaning, exploratory data analysis (EDA), and inferential statistics in Python. Key statistical techniques such as Z-tests, T-tests, ANOVA, ANCOVA, correlation, Chi-Square tests, linear regression, and logistic regression will be covered to enhance participants' data analysis capabilities.

Objectives

At the end of the course, participants will be able to:

- Understand the fundamentals of Python programming, including variables, data types, control structures, and functions.
- Work with data effectively using Python libraries like NumPy and pandas, Matplotlib and Seaborn
- Perform data cleaning and preparation for analysis.
- Conduct exploratory data analysis (EDA) using Python.
- Apply inferential statistics, including Z-tests, T-tests, ANOVA, ANCOVA, correlation, Chi-Square tests, linear regression, and logistic regression.
- Visualize and present data using Python's plotting libraries (Matplotlib and Seaborn).
- Solve real-world data problems using Python.

Expected results

On completion of the course, faculty will be expected to:

- Understand Python programming
- Be able to understand Python Basics
- Be able to work with Data
- Understand Exploratory Data Analysis

Course Duration

This course will take place for one week meeting 8 hours per day for the five days. Face to face lecturing will take place for 24 hours in addition to practical hours. Practical projects will be done at the end.

Qualification of participants

The course is designed for University of Rwanda faculty with strong quantitative background who would also like to learn more about Data Science in the future. The applicant should have experience of working with data-related projects.

Application process

To apply, please use this Google form link:


<https://forms.gle/2nspAREh1GDSEwP37>

Deadline is on 25th October 2024.

The selected faculty staff will be notified by 31st October 2024.

For more information, please contact **Dr. Jennifer Batumuliza**, Head of Data Driven Incubation Hub and Professional Short courses, African Center of Excellence in Data Science, University of Rwanda, Tel: +250788312697 Email: bajelo2000@gmail.com

Done at Kigali 9/10/2024


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