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# Data Science Bootcamp

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In partnership with:

**// FLATIRON SCHOOL**

# Introduction

Africa's top Tech Bootcamp – Moringa teams up with America's Top Tech Bootcamp - Flatiron School, to bring you a Data Science Course that puts you on the path to a high-demand, future-ready career. Being a Data Scientist requires more than knowing algorithms or building models – we teach you how to think with data, tell compelling stories, and derive actionable insights, just like professional data scientists.

## Why Learn Data Science?

- 1 In-demand Skill Set:** Data science is at the forefront of the digital age. As businesses increasingly rely on data for decision-making, professionals with data science skills are in high demand across various industries.
- 2 Career Opportunities:** Learning data science opens up a wide array of career opportunities, ranging from data analyst and machine learning engineer to data scientist and AI specialist
- 3 Innovation:** Whether in healthcare, finance, marketing, or other fields, data science plays a pivotal role in driving innovation and creating new possibilities.
- 4 High Earning Potential:** Data scientists are often among the top earners in the technology sector.
- 5 Global Impact:** Data science has the potential to address global challenges, such as healthcare optimization, climate change analysis, and more. By learning data science, you can contribute to solving critical issues on a global scale.

## Who is this course for?

- Ongoing university student or graduate with a background in basic math or statistics concepts and/or IT related courses.
- Working professionals who work with data e.g fintech, banking, research
- Aspiring data scientists and data analysts who are eager to harness the power of data to drive decisions.

## What are the requirements to join?

01

Have a basic understanding or strong background in math & statistics concepts.

02

Have a university/college education(ongoing or graduated)

03

Complete the application process by taking a technical assessment test

04

Have stable internet access.

05

Have a laptop (core i5 and upwards, 8GB RAM, 500GB or more memory).

## Data Science Course Overview

### Part-Time Online Classes

**Duration** - 37 weeks

**Mode** - 100% online classes

Mon to Fri from  
6 pm - 9 pm

**Tuition Fees** - Ksh 200,000

### Full-Time Online Classes

**Duration** - 28 weeks

**Mode** - 100% live & online  
classes Mon - Fri  
from 8 am - 5 pm

**Tuition Fees** - Ksh 174,000

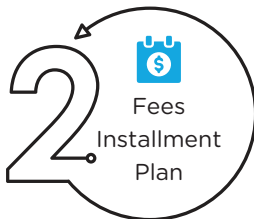
### Full-Time Hybrid Classes

**Duration** - 28 weeks

**Mode** - 2 days in-person &  
3 days online  
classes Mon - Fri  
from 8 am - 5 pm

**Tuition Fees** - Ksh 200,000

## Fee Payment Options Available



# Curriculum Outline

## Orientation & Onboarding

- Onboarding week
- Course Overview
- Accounts setup
- Tools, system configurations, and installations

## Career Incubator I

- Learn how to develop professional soft skills
- Learn how to build your professional brand with a standout resume, LinkedIn profile, and portfolio
- Resume + portfolio skeleton review

## Module 1 : Introduction to Python Programming

Learn the fundamentals of programming for data science, including control flow, loops, functions, and core data structures. You'll also gain hands-on experience with file handling and logging, ending the module with a summative assessment to reinforce practical application.

## Module 2: Data Science Essentials

**Introduction to Data Science:** Build a strong foundation in data science by exploring data types, collection, statistical analysis, and visualizations using Python. Gain hands-on experience with Pandas, Seaborn, and object-oriented programming, with assessments to validate your skills.

**Introduction to SQL:** Learn essential database skills, including data retrieval, analysis, and modeling with SQL. Gain hands-on experience with filtering, grouping, joining, and working with datasets in SQL and Pandas, with assessments to validate your skills.

## Health & Wellness Break

# Curriculum Outline

## Module 3: Data Science Foundations I & II

**Cloud Computing, Generative AI & Dashboards:** Gain hands-on experience with big data and cloud-based analytics using PySpark and Python. Build dashboards, explore Generative AI applications, and master advanced data visualization workflows, with assessments to validate your skills.

**Inferential Statistics:** Build a solid foundation in probability, distributions, and statistical inference. Apply hypothesis testing, A/B testing, and inference techniques for different data types, with assessments to validate your skills.

**Regression:** Learn key regression techniques, including linear, multiple, and logistic regression. Gain hands-on experience with model fitting, inference, regularization, and model selection, with assessments to validate your skills.

## Career Incubator II

Practice technical and behavioral questions to refine your portfolio

## Module 4: Machine Learning I

**Introduction to Machine Learning:** Explore the foundations of machine learning, including statistical learning, the bias-variance tradeoff, and supervised learning. Build and evaluate models like logistic regression, decision trees, ensembles, and SVMs, with practical assessments to validate your skills.

**Machine Learning with Scikit-Learn:** Apply machine learning concepts to real-world problems using Scikit-Learn. Work with k-nearest neighbors, PCA, clustering, Gaussian mixture models, and recommendation systems, with assessments to validate your practical skills.

## Module 5: Machine Learning II

**NLP, Time Series & Neural Networks:** Learn to work with text, sequential, and structured data. Explore NLP, time series modeling, and build neural networks, including multi-layer perceptrons, with hands-on projects and assessments to validate your skills.

**Neural Networks & Similar Models:** Advance your deep learning skills with CNNs for computer vision, RNNs and attention mechanisms for sequence modeling, Transformers, and Generative AI. Hands-on projects and assessments validate your practical mastery.

## Module 6: Data Science Capstone Project Period

- Technical Assessment Test Week
- Data Science Final Project

# What Our Graduates Say



Moringa school helped me in so many ways, but I think the most important one is the Data Science pipeline (in a nutshell). I am now able to do analysis projects with ease. I am now working for Eneza Education, an ed-tech company as a Business Intelligence Engineer. Yes! I would suggest the course to anyone who would want to pursue Data Science.



**Cecilia Wanja,**  
Eneza Education

## Contact Details



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