



In partnership with



# Data Science Programme

   | @alxafrica



# 13 Months (20–30 hrs per week)

## What is Data Science?

Data Science involves becoming proficient in data analysis and interpretation through hands-on training in Python programming, SQL databases, and tools like Power BI, enabling individuals to construct data infrastructure and utilise data-driven methods for analysis and decision-making within a 13-month immersive learning programme regardless of prior experience.

## Why Data Science?

There is a growing need for skilled professionals capable of leveraging data analytics to drive strategic decisions across various industries. Our Data Science programme is meticulously designed to shape budding data scientists with hands-on projects that cultivate real-world problem-solving abilities.

## Programme Objectives

- Prepare learners for entry-level roles in data science and related fields by equipping them with essential skills.
- Ensure learners are capable of working with unstructured datasets to extract meaningful insights.
- Offer expert mentorship and a supportive learning environment for successful completion.



## Why Choose Us?

### Professional Foundations

Before starting the Data Science programme, learners complete our 8-week foundational training, acquiring vital skills like self-awareness, teamwork, communication, and critical thinking, essential for success in tech.

### Future-Ready Training

Our programme caters to both beginners and seasoned professionals, offering foundational skills that are not only in demand today but also adaptable to future technological shifts.

### Real-World Application

We prioritise practical, hands-on projects, allowing learners to directly apply their newfound skills to solve authentic data challenges and develop critical problem-solving acumen.

## Tools Learners Get to Use



Google Sheet



PowerBI



MySQL



Anaconda



Python



Jupyter Notebook



scikit-learn



AWS

# 13-Month

Programme

# 100%

Digital (Online)  
Learning  
programme

# 20-30 hrs

Per Week



# Professional Foundations Schedule

08 Weeks (20–30hrs / week)

## What is Professional Foundations?

- A career-readiness training module to kick-start your ALX learning journey before moving on to your chosen specialisation.
- Learn exceptional communication, teamwork, and leadership skills that make ALX graduates top picks in the job market.
- Be ready for a real-world career with soft skills that keep you ahead in the rapidly changing tech industry.

## Weekly Content

### Week 01

- Getting Started
- Habits for Developing Intrapersonal Intelligence
- Onboarding & Programme Overview
- The ALX Fellowship
- Values & Community
- GCGOs for Africa

### Week 02

- Movement and Mental Health
- Karibu Lessons
- Values & Empathy
- Exploring African GCGOs
- Self Awareness & Emotional Intelligence
- Growth Mindset & Grit
- Self Regulation & Improvement
- Time Management

### Week 03

- Morning Pages for Personal Reflection
- Habit Formation
- Goal Setting
- Defining Problems & User Stories
- Problem Solving
- Asking the Right Questions
- Research Methodology & Ethics

### Week 04

- Meditation
- Goal Setting
- Communication for Impact
- Creating Presentations & Technical Writing
- Communication in Tech Teams
- Design Thinking
- Work Planning

### Week 05

- Boosting Intrapersonal Intelligence
- Problem Definition
- Teamwork Best Practices
- Agile Technology Teams: Roles & Processes
- Research & Data Gathering
- Data Cleaning & Preparation
- Data Visualization
- Identifying Opportunities
- Generating Solutions
- Understanding the Market

### Week 06

- Refresher on Habits for Intrapersonal Intelligence
- Understanding the User
- User Interviews
- Intro to Wireframes & Prototypes
- Teamwork & Team Communication
- Conflict Management & Negotiation
- Generating Solutions & Making Decisions
- Human Centered Design

### Week 07

- Personal Reflection on Intrapersonal Growth
- Generating Solution
- Product Requirements
- Pitch Preparation
- Powerful Presentations
- Identifying Opportunities
- Wireframes & Prototypes

### Week 08

- Committing to your Intrapersonal Growth
- Elevator Pitch
- Professional Bio
- Exploring Tech Tracks
- Resume Writing
- LinkedIn Profiles
- Interview Skills
- Personal Brand & Bio
- Career Skills



# Weekly Specialisation Schedule

## Weekly

Weekly Assignment submissions due every Monday

## Learning Webinars

Every Tuesday & Thursday

## Monthly

- ALX Foundations Milestone submission
- ALX Foundations Sessions (Office Hours, Speaker Series)
- Self-Placement Reporting

## End of Programme

- Selections Phase 3 Interviews
- Data Science Integrated Exam

## Weekly Content

### Fundamentals (23 weeks)

**Week 01 – 02** : Explore 101

**Week 03 – 04** : Preparing Data

**Week 05 – 09** : SQL

**Week 10 – 13** : Data Visualisation & Storytelling

**Week 14 – 15** : Consolidation

**Week 16 – 23** : Python



### Machine Learning (14 weeks)

**Week 24 – 27** : Regression

**Week 28 – 32** : Natural Language processing and classification

**Week 33 – 37** : Unsupervised Learning

### Cloud Practitioner (5 weeks)

**Week 38 – 42** : AWS Foundations

### Consolidation (2 weeks)

**Week 43** : Integrated Exams

**Week 44** : Consolidation



# YOUR LEARNING JOURNEY



## Kickstart your career in Tech

85% of learners find a job after 6 months with a certificate of completion.

**LAUNCH**



## By learning from industry experts

Our instructors are fully-vetted with industry experience.

**1**

## And developing your professional foundations

Get a professional portfolio and skills for better employability.

## Gaining work ready skills

Learn up-to-date tech innovations with real-world projects.

**2**

**3**

**4**

## In a state-of-the-art learning environment

Network, collaborate and co-work with peers online or offline.



**5**

## With support from your peers.

Our alumni get access to our Fellowship community and events.

# GET STARTED

**apply now**

**6**



[www.alxafrica.com](http://www.alxafrica.com)





# 2024 Calendar

Programme - Cohort #	Application Deadline	Onboarding Starts	Programme Starts
Data Science - C2	27 Feb	11 Mar	18 Mar

**DISCLAIMER:** Please be aware that the dates provided are subject to change and are intended as a reference for your planning purposes, please refer to the website for date confirmation.







# Frequently Asked Questions

## **What is the criteria for being accepted?**

Accepted applicants are evaluated based on their entire application, including assessment scores and essay responses. While the outcome may not always meet expectations, we encourage self-reflection, identifying areas for improvement, and ongoing skill development. For future programme applications, please revisit our website during the next cycle.

## **I applied and received confirmation, but I haven't received an acceptance letter.**

The confirmed button in your email indicates your acceptance.

## **Are there any fees apart from the administration fee?**

The tuition fee for our programmes starts at \$7500. For sponsored applicants, this fee is waived, and only the administration fee is required.

## **I want a waiver or scholarship, and I am unable to pay the administration fee.**

Regrettably, we cannot accommodate this request presently. The administration fee supports programme access, study materials, community engagement, networking, and certification. Paying it demonstrates commitment and ensures access to all resources and support for success.

## **How do I make payment?**

All payments can be made via the admissions portal.

## **I accidentally dropped a programme, and now I can't continue the application.**

Unfortunately, dropped applications cannot be continued. You will need to apply to another programme or use a different email address.