



Python for Data and Automation

ZTH-DAT-002 | Digital Explorers | Core | Data and AI

12 weeks

duration

36 hours

learning time

2 x 1.5h

live sessions per week

US\$120.00

fee per learner

In this course you will write Python programmes.

Delivery

Offline-ready: can run without internet

Suitable for

Secondary-age 14-18, Tertiary and university, NGOs and community hubs, Working professionals

What you will be able to do

- Write Python programmes
- clean, analyse and chart data
- use spreadsheets and SQL basics
- explain a model's limits

Syllabus

1. Python basics
2. Loops, functions and files
3. Spreadsheets and data cleaning
4. Pandas and charts
5. SQL queries
6. Simple prediction and AI tools
7. Data ethics and storytelling
8. Data project

Hands-on practical work

- Analyse a real dataset (school results, rainfall, market prices)
- build a dashboard
- automate a repetitive task (renaming files, sending reports)
- data collection fieldwork

Resources and equipment

Laptops, Python and notebooks, spreadsheet software, sample datasets, offline package bundle

Off-grid and solar option

Offline Python distribution and datasets on the local learning server





Assessment

Labs, project report and presentation

Career direction

Data analyst, junior data scientist, automation specialist, monitoring and evaluation data officer

Data analysis and automation skills are in demand in business, NGOs, government and remote work

Next steps

From DS1, DS7; leads to MK2 Data and AI and MK10 AI Product Development

Enrol

Skills first, certificate second: you finish with something you can do and a QR-verifiable certificate to prove it.

Enrol online at <https://zambesi.ac.zw/course.php?slug=python-for-data-and-automation> or contact info@zambesi.ac.zw / +263 7X XXX XXXX.

