



AI AND DIGITAL TRANSFORMATION TRAINING

Data Engineering and Analytics Pipelines

5 day course

Classroom, online or in-house

Course overview

Analytics fails far more often on the pipeline than on the model, because data arrives late, arrives changed, or silently stops arriving and nobody notices for a fortnight. This course covers building pipelines that hold. Delegates work through source systems and extraction patterns including change capture, the loading and transformation choices behind a warehouse or a lake, and modelling data for analysis rather than for transactions. Orchestration, scheduling and dependency management are covered. Testing, monitoring and alerting on data are treated as first class concerns. Handling schema change and backfills follows. The course closes on cost, on documentation and on handing a pipeline to somebody else.

What you will learn

- Extract from source systems including change data capture
- Choose between transformation approaches for a warehouse or lake
- Model data for analysis rather than for transactions
- Orchestrate schedules and manage dependencies
- Test and monitor data so silent failures are noticed
- Handle schema change and run backfills safely
- Control cost and document a pipeline for handover

Who should attend

- Data engineers and analytics developers
- Database administrators moving into analytics
- Analysts maintaining their own data flows
- IT staff supporting reporting platforms
- Technical leads designing data architecture

Course outline

- 01 Pipelines fail more often than models
- 02 Source systems and extraction patterns
- 03 Change data capture
- 04 Loading, transformation and storage choices
- 05 Modelling data for analysis
- 06 Orchestration and dependencies
- 07 Testing, monitoring and alerting on data
- 08 Schema change, backfills, cost and handover

Upcoming dates

Dates	Venue	Format	Fee per delegate
21 to 25 September 2026	Accra, Ghana	Classroom	USD 1,325
26 to 30 October 2026	Lusaka, Zambia	Classroom	USD 1,325
1 to 5 February 2027	Online	Online	R8,500
8 to 12 February 2027	Harare, Zimbabwe	Classroom	USD 1,325



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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