



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

Tel: +27 12 004 8389 · Mobile: +27 65 077 6310

Email: apply@aaticd.co.za · Website: www.aaticd.co.za

COURSE BROCHURE

Linear Relationships and Predictive Trend Models

Physical, Mathematical, Computer and Life Sciences / Mathematical Sciences

Unit Standard 243835 · NQF Level 4 · 5 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the skills to understand linear relationships and predict linear trends using appropriate models. It focuses on interpreting data patterns, constructing linear regression models, and applying them to make informed predictions in a business context.

Category	Physical, Mathematical, Computer and Life Sciences
Subfield	Mathematical Sciences
Unit Standard	243835
Accreditation	SAQA Accredited · NQF Level 4 · 5 Credits
Duration	2 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate understanding of linear relationships and their representation in data sets.
- Apply appropriate statistical methods to identify linear trends in given data.
- Construct linear regression models to predict future outcomes based on historical data.
- Evaluate the accuracy and reliability of linear trend models using relevant metrics.
- Interpret the results of linear trend analysis to support business decision-making.
- Implement linear trend models using software tools such as Excel or Python.

WHO SHOULD ATTEND

- This course is ideal for data analysts, business intelligence professionals, and managers who need to interpret trends and make data-driven decisions.
- It is also suitable for anyone seeking to enhance their analytical skills in a corporate environment.

COURSE OUTLINE

Day 1: Foundations of Linear Relationships

- Introduction to linear relationships in business and science
- The linear equation: $y = mx + c$
- Slope and intercept: meaning and calculation
- Scatter plots and correlation coefficient (r)
- Introduction to simple linear regression
- The least squares regression line
- Residuals and goodness-of-fit (R^2)
- Practical interpretation of regression output

Day 2: Predictive Trend Models and Applications

- Prediction using the regression equation
- Confidence and prediction intervals
- Checking assumptions: linearity, independence, normality, homoscedasticity
- Introduction to multiple linear regression
- Interpreting coefficients in multiple regression
- Model selection and overfitting
- Using software (e.g., Excel, Python) for regression analysis
- Case study: building and presenting a predictive trend model

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **5 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 15,400.00	R 15,400.00
1	In-House	R 20,000.00	R 20,000.00
1	On-Campus (Pretoria)	R 23,100.00	R 23,100.00

UPCOMING SESSIONS

Start	End	Method	Venue
06 Aug 2026	07 Aug 2026	On-Campus	Cape Town, South Africa
06 Aug 2026	07 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	11 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	11 Aug 2026	On-Campus	Mauritius
11 Aug 2026	12 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE
12 Aug 2026	13 Aug 2026	On-Campus	Abu Dhabi, UAE
12 Aug 2026	13 Aug 2026	On-Campus	Cape Town, South Africa

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 243835) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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