



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@aatikd.co.za · Website: www.aatikd.co.za

COURSE BROCHURE

Mathematical Analysis for Economics and Finance

Business, Commerce and Management Studies / Generic Management

Unit Standard 252036 · NQF Level 5 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the ability to apply mathematical analysis techniques to economic and financial data. Participants will develop skills to interpret, model, and solve complex problems in economics and finance using quantitative methods. The course bridges theoretical mathematics with practical decision-making in corporate and financial environments.

Category	Business, Commerce and Management Studies
Subfield	Generic Management
Unit Standard	252036
Accreditation	SAQA Accredited · NQF Level 5 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply mathematical functions and calculus to model economic relationships and financial trends.
- Analyze economic and financial data using statistical methods to support decision-making.
- Evaluate investment and financial scenarios using techniques such as present value, risk analysis, and optimization.
- Implement mathematical models to forecast economic variables and financial performance.
- Demonstrate proficiency in interpreting quantitative results for strategic recommendations.
- Design mathematical frameworks to solve complex financial and economic problems.

WHO SHOULD ATTEND

- This course is designed for finance professionals, economists, analysts, and managers who need to apply mathematical tools to interpret economic and financial information.
- It is also suitable for graduates seeking to enhance their quantitative skills in a business context.

COURSE OUTLINE

Day 1: Foundations of Mathematical Analysis

- Overview of mathematical analysis in economics and finance.
- Review of algebraic functions: linear, quadratic, exponential.
- Introduction to limits and continuity.
- Derivatives: rules and economic interpretation (marginal analysis).
- Applications: marginal cost, marginal revenue, profit maximisation.
- Elasticity of demand and supply.
- Solving equilibrium and break-even problems.
- Practical exercises with economic data sets.

Day 2: Optimisation and Multivariable Analysis

- Unconstrained optimisation: first and second derivative tests.
- Applications: profit maximisation, cost minimisation.
- Partial derivatives and marginal productivity.
- Multivariable optimisation: critical points and classification.
- Constrained optimisation: Lagrange multipliers.
- Matrix algebra: addition, multiplication, determinants, inverses.
- Solving systems of linear equations for market equilibrium.
- Introduction to input-output analysis.

Day 3: Integration, Dynamics, and Financial Applications

- Integration: indefinite and definite integrals.
- Consumer and producer surplus calculation.
- Differential equations: first-order linear applications in growth and decay.
- Present value and future value of continuous cash flows.
- Bond pricing and yield to maturity.
- Option pricing: Black-Scholes model overview.
- Case study: applying analysis to a real-world economic scenario.
- Review and assessment.

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 **6 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 13,900.00	R 13,900.00
1	In-House	R 18,100.00	R 18,100.00
1	On-Campus (Pretoria)	R 20,800.00	R 20,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
24 Aug 2026	26 Aug 2026	On-Campus	Harare, Zimbabwe
24 Aug 2026	26 Aug 2026	On-Campus	Abu Dhabi, UAE
25 Aug 2026	27 Aug 2026	On-Campus	Bangkok, Thailand
25 Aug 2026	27 Aug 2026	On-Campus	Durban, South Africa
26 Aug 2026	28 Aug 2026	On-Campus	Victoria Falls, Zimbabwe
26 Aug 2026	28 Aug 2026	On-Campus	Shenzhen, China
31 Aug 2026	02 Sep 2026	On-Campus	Lusaka, Zambia
31 Aug 2026	02 Sep 2026	On-Campus	Bangkok, Thailand

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 252036) 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.

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 · WhatsApp: +27 65 077 6310 · apply@aaticd.co.za · www.aaticd.co.za