



Accredited Africa Training Institute for Capacity Development

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

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COURSE BROCHURE

Digital and Analogue Mosaic Production

Law, Military Science and Security / Sovereignty of the State

Unit Standard 244503 · NQF Level 5 · 12 Credits · 9 Days

COURSE OVERVIEW

This course equips learners with the skills to design and produce both digital and analogue mosaics, integrating traditional mosaic techniques with modern digital tools. Learners will explore material selection, design principles, and production processes to create original mosaic artworks suitable for corporate or public environments.

Category	Law, Military Science and Security
Subfield	Sovereignty of the State
Unit Standard	244503
Accreditation	SAQA Accredited · NQF Level 5 · 12 Credits
Duration	9 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Analyse the characteristics and suitability of various mosaic materials for both digital and analogue applications.
- Design original mosaic patterns using digital software and manual sketching techniques.
- Apply safe and correct procedures for cutting, shaping, and adhering mosaic tesserae.
- Produce a finished analogue mosaic using traditional methods such as direct or indirect method.
- Produce a finished digital mosaic using computer-aided design and output processes.
- Evaluate the final mosaic against design specifications and quality standards.

WHO SHOULD ATTEND

- Artists, designers, and craft professionals seeking to expand their technical repertoire into mosaic production, as well as educators and trainers in visual arts who wish to incorporate mosaic techniques into their curriculum.

COURSE OUTLINE

Day 1: Introduction to Mosaic Production and Materials

- Overview of mosaic art: history and contemporary uses
- Differences between digital and analogue mosaic production
- Types of mosaic materials: glass, ceramic, stone, smalti, etc.
- Tools and equipment: cutters, tweezers, adhesives, grout
- Basic design principles: colour theory, pattern, texture
- Safety in the mosaic studio: handling sharp objects, dust, and adhesives

Day 2: Design and Planning for Mosaic Projects

- Sources of inspiration and developing a concept
- Creating a cartoon: techniques for transferring design onto substrate
- Colour selection and material matching
- Understanding substrate types: mesh, board, cement backer
- Planning for digital vs analogue approaches: when to use each
- Estimating material quantities and project time

Day 3: Analogue Mosaic Techniques – Direct Method

- Direct method overview: advantages and limitations
- Cutting techniques: nippers, wheel cutters, and breaking pliers
- Adhesive types: thin-set mortar, epoxy, mastic
- Laying tesserae: spacing, alignment, and surface leveling
- Working with irregular shapes and curves
- Troubleshooting common direct method issues

Day 4: Analogue Mosaic Techniques – Indirect and Double Indirect Methods

- Indirect method: when and why to use it
- Double indirect method for large or complex projects
- Working with paper-faced or mesh-faced tesserae
- Adhesive transfer techniques
- Grouting: mixing, application, and cleaning
- Sealing and finishing for durability

Day 5: Digital Mosaic Production – Software and Workflow

- Overview of digital mosaic software options
- Image preparation: resolution, colour reduction, and posterization
- Tessellation algorithms and pattern generation
- Customising tile shapes, sizes, and spacing digitally
- Exporting to vector files for waterjet or laser cutting
- Integrating digital patterns with analogue assembly

Day 6: Digital Production – CNC and Waterjet Cutting

- CNC routing vs waterjet cutting: capabilities and limitations
- File preparation: DXF, AI, and G-code basics
- Material selection for machine cutting: glass, stone, ceramic
- Machine setup, tooling, and safety protocols
- Post-processing: cleaning, edge finishing, and sorting

- Quality control and troubleshooting cut errors

Day 7: Combining Digital and Analogue Techniques

- Hybrid mosaic workflow: digital design, machine cut, hand finish
- Matching hand-cut and machine-cut tiles for consistency
- Incorporating found objects and mixed media
- Design considerations for hybrid projects
- Case studies of successful hybrid mosaics
- Problem-solving integration challenges

Day 8: Advanced Applications and Finishing Techniques

- Grouting techniques for fine detail and large joints
- Epoxy grout and coloured grout applications
- Installing mosaics on curved substrates: domes, columns
- Outdoor and wet area installation considerations
- Protective coatings: wax, sealers, and anti-graffiti
- Repair methods: replacing tesserae, colour matching, regrouting

Day 9: Project Management, Portfolio Development, and Assessment

- Project planning: timeline, budget, client brief
- Health and safety compliance in the mosaic studio
- Professional practice: pricing, contracts, and marketing
- Portfolio development: photographing mosaics, creating a digital portfolio
- Review of unit standard outcomes and assessment criteria
- Mock assessment and feedback session

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 **12 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 35,000.00	R 35,000.00
1	In-House	R 45,500.00	R 45,500.00
1	On-Campus (Pretoria)	R 52,500.00	R 52,500.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	20 Aug 2026	On-Campus	Abu Dhabi, UAE
11 Aug 2026	21 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	21 Aug 2026	On-Campus	Mauritius
12 Aug 2026	24 Aug 2026	On-Campus	Cape Town, South Africa
13 Aug 2026	25 Aug 2026	On-Campus	Dubai, UAE
14 Aug 2026	26 Aug 2026	On-Campus	Pretoria, South Africa
17 Aug 2026	27 Aug 2026	On-Campus	Durban, South Africa
18 Aug 2026	28 Aug 2026	On-Campus	Shenzhen, China

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 244503) 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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