



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

Prepare Manufacture And Erect Roof Trusses Training

Physical Planning and Construction / Building Construction

Unit Standard 119071 · NQF Level 2 · 15 Credits · 12 Days

COURSE OVERVIEW

This course equips learners with the competencies to prepare, manufacture, and erect roof trusses in compliance with South African building regulations and safety standards. It covers the entire process from truss design interpretation and material selection to assembly and installation, ensuring structural integrity and workplace safety. By the end, participants will be able to manage roof truss projects efficiently and safely.

Category	Physical Planning and Construction
Subfield	Building Construction
Unit Standard	119071
Accreditation	SAQA Accredited · NQF Level 2 · 15 Credits
Duration	12 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Interpret roof truss drawings and specifications to determine material requirements and assembly procedures.
- Select, handle, and store materials for roof truss manufacture in accordance with quality and safety standards.
- Manufacture roof trusses using appropriate tools and techniques, ensuring dimensional accuracy and structural soundness.
- Erect roof trusses on site, applying correct lifting, positioning, and fixing methods to ensure stability and compliance.
- Apply health and safety regulations, including fall protection and safe handling of materials, throughout the manufacturing and erection process.
- Inspect completed roof truss installations for defects and confirm compliance with project specifications and building codes.

WHO SHOULD ATTEND

- This course is designed for construction workers, roof truss manufacturers, site supervisors, and apprentices in the building and civil engineering sectors.
- It is also suitable for anyone seeking to upskill in roof truss preparation, fabrication, and erection.

COURSE OUTLINE

Day 1: Introduction to Roof Trusses and Safety

- Overview of roof truss systems
- Types of trusses: king post, queen post, fink, howe, etc.
- Building regulations and standards (SANS 10400)
- Occupational Health and Safety Act requirements
- Personal protective equipment (PPE) and safe work practices
- Hazard identification and risk assessment

Day 2: Reading and Interpreting Truss Drawings

- Types of drawings: layout, elevation, connection details
- Scale, dimensions, and tolerances
- Truss member identification: chords, webs, gussets
- Load paths and bearing points
- Material schedules and cutting lists
- Practical exercise: reading a sample truss drawing

Day 3: Timber Selection and Quality Control

- Softwood vs hardwood; common species in SA (pine, gum)
- Stress grading (SANS 6133) and visual grading
- Moisture content and its effect on truss performance
- Common defects: knots, splits, wane, twist
- Storage and handling of timber
- Practical: moisture meter usage and grading

Day 4: Cutting and Preparing Timber Components

- Safe use of circular saws, mitre saws, and band saws
- Cutting techniques for plumb, seat, and birdsmouth cuts
- Jig setup for repetitive cutting
- Measuring and marking out
- Tolerances and quality checks
- Practical: cutting a set of truss members

Day 5: Jig Assembly and Truss Fabrication

- Types of jigs: fixed, adjustable, and dedicated
- Jig setup: locating stops, squaring, and leveling
- Component placement and sequencing
- Temporary bracing and clamping
- Check for squareness, plumb, and twist
- Practical: assemble a simple truss on jig

Day 6: Fastening Methods: Nailing, Bolting, and Connectors

- Nail types, sizes, and spacing (SANS 10163)
- Nailing patterns for truss joints
- Bolting: hole drilling, bolt grades, torque
- Metal connector plates: installation and embedment
- Quality checks on fasteners

- Practical: fastening a truss joint

Day 7: Truss Handling, Lifting, and Rigging

- Manual handling vs mechanical lifting
- Lifting points and sling angles
- Crane signals and communication
- Spreader bars and lifting beams
- Safety precautions during lifting
- Practical: rigging and lifting a truss

Day 8: Erecting Roof Trusses: Sequence and Temporary Bracing

- Erection sequence: end trusses first, then intermediates
- Temporary bracing: lateral, longitudinal, and diagonal
- Fall protection: harnesses, lanyards, anchor points
- Scaffolding and access platforms
- Alignment techniques: string lines, levels
- Practical: erecting a small roof section

Day 9: Permanent Bracing and Roofing Integration

- Types of permanent bracing: wind bracing, cross bracing
- Connection to walls and roof structure
- Purlins and battens: fixing and spacing
- Roof covering materials and attachment
- Service penetrations: flues, vents, skylights
- Practical: installing bracing and purlins

Day 10: Quality Control and Inspection of Truss Installation

- Inspection checklists: pre-erection, during erection, post-erection
- Measuring tolerances: span, camber, verticality
- Fastener inspection: nailing patterns, bolt torque
- Common defects: misalignment, overloading, damage
- Reporting and corrective actions
- Practical: inspecting an installed truss system

Day 11: Advanced Truss Types and Complex Roof Shapes

- Scissor trusses: geometry and applications
- Attic trusses: storage and living space
- Hip and valley trusses
- Dormer trusses and irregular shapes
- Design and fabrication challenges
- Practical: assemble a scissor truss

Day 12: Final Project, Assessment, and Career Pathways

- Integrated project: from drawing to erected truss
- Time management and teamwork
- Final inspection and sign-off
- Portfolio of evidence requirements
- SAQA unit standard assessment
- Career paths: truss technician, supervisor, estimator

- Course evaluation and feedback

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 **15 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 41,000.00	R 41,000.00
1	In-House	R 53,300.00	R 53,300.00
1	On-Campus (Pretoria)	R 61,500.00	R 61,500.00

UPCOMING SESSIONS

Start	End	Method	Venue
07 Aug 2026	24 Aug 2026	On-Campus	Dubai, UAE
10 Aug 2026	25 Aug 2026	On-Campus	Abu Dhabi, UAE
11 Aug 2026	26 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	26 Aug 2026	On-Campus	Mauritius
12 Aug 2026	27 Aug 2026	On-Campus	Cape Town, South Africa
13 Aug 2026	28 Aug 2026	On-Campus	Dubai, UAE
14 Aug 2026	31 Aug 2026	On-Campus	Pretoria, South Africa
17 Aug 2026	01 Sep 2026	On-Campus	Durban, 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 119071) 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@aatid.co.za · www.aatid.co.za