



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

Determine The Long Lived Alpha Activity On A Dust Laden Filter With An Alpha Counter Training

Health Sciences and Social Services / Preventive Health

Unit Standard 120318 · NQF Level 3 · 2 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the knowledge and practical skills to determine long-lived alpha activity on dust-laden filters using an alpha counter, in compliance with South African nuclear and radiation safety regulations. Participants will learn to prepare samples, operate alpha counting equipment, interpret results, and apply quality assurance measures to ensure accurate radiological assessments.

Category	Health Sciences and Social Services
Subfield	Preventive Health
Unit Standard	120318
Accreditation	SAQA Accredited · NQF Level 3 · 2 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate the correct procedure for preparing a dust-laden filter sample for alpha counting.
- Apply appropriate calibration and quality control techniques to ensure accurate alpha counter operation.
- Analyze alpha count data to calculate long-lived alpha activity concentration on the filter.
- Evaluate the results against regulatory limits and report findings in accordance with standard operating procedures.
- Implement safety protocols for handling radioactive dust samples and operating alpha counting equipment.
- Interpret the significance of long-lived alpha activity in the context of workplace radiological safety.

WHO SHOULD ATTEND

- This course is designed for radiation protection officers, health physicists, laboratory technicians, and environmental monitors working in nuclear facilities, mines, or research institutions where airborne radioactive dust is monitored.

COURSE OUTLINE

Day 1: Fundamentals of Alpha Counting on Dust Laden Filters

- Introduction to alpha radiation: properties, sources, and health significance.
- Overview of long-lived alpha emitters in dust samples.
- Alpha counter instrumentation: detector types, sample holder, and electronics.
- Filter preparation: sampling techniques, handling, and mounting.
- Counting procedure: background measurement, sample counting, and dead time correction.
- Calculation of activity: efficiency calibration, decay correction, and uncertainty estimation.
- Quality assurance: control samples, duplicate analysis, and record keeping.
- Practical demonstration and hands-on exercise with simulated filter samples.

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 **2 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 12,800.00	R 12,800.00
1	In-House	R 16,600.00	R 16,600.00
1	On-Campus (Pretoria)	R 19,200.00	R 19,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
07 Aug 2026	07 Aug 2026	On-Campus	Pretoria, South Africa
07 Aug 2026	07 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	10 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	10 Aug 2026	On-Campus	Mauritius
11 Aug 2026	11 Aug 2026	On-Campus	Cape Town, South Africa
12 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE
13 Aug 2026	13 Aug 2026	On-Campus	Pretoria, South Africa
14 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE

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 120318) 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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