



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

Pharmacology and Pharmaceutics for Medicine Information

Health Sciences and Social Services / Curative Health

Unit Standard 259364 · NQF Level 5 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the practical knowledge and skills to apply pharmacology and pharmaceutics in providing accurate, safe, and appropriate information about medicines. It focuses on the responsible use of medicines, understanding drug actions, and communicating effectively with patients and healthcare professionals.

Category	Health Sciences and Social Services
Subfield	Curative Health
Unit Standard	259364
Accreditation	SAQA Accredited · NQF Level 5 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply principles of pharmacology to explain the actions and interactions of commonly used medicines.
- Analyze pharmaceutical dosage forms and routes of administration to determine appropriate use.
- Evaluate patient-specific factors that influence medicine selection and response.
- Demonstrate effective communication of medicine information to patients and healthcare providers.
- Implement strategies to promote safe and rational use of medicines.
- Interpret medicine labels, package inserts, and prescribing information accurately.

WHO SHOULD ATTEND

- This course is designed for pharmacy assistants, medicine information officers, and other healthcare support staff who provide information about medicines and their appropriate use in retail or institutional settings.

COURSE OUTLINE

Day 1: Foundations of Pharmacology and Pharmaceutics

- Introduction to pharmacology: drug nomenclature and classification.
- Pharmacokinetics: ADME processes.
- Routes of administration: enteral, parenteral, topical.
- Bioavailability and first-pass metabolism.
- Introduction to pharmaceutics: dosage forms and drug delivery systems.
- Overview of drug-receptor interactions.
- Basic pharmacokinetic parameters: half-life, volume of distribution.
- Factors affecting drug absorption: pH, solubility, food interactions.

Day 2: Pharmacodynamics and Dose-Response Relationships

- Pharmacodynamics: drug-receptor interactions.
- Types of receptors: G-protein coupled, ion channels, enzyme-linked.
- Dose-response relationships: graded and quantal.
- Therapeutic index and safety margins.
- Agonists, antagonists, and partial agonists.
- Drug potency and efficacy.
- Spare receptors and receptor reserve.
- Clinical implications of pharmacodynamics.

Day 3: Pharmaceutics: Dosage Forms and Drug Delivery

- Solid dosage forms: tablets, capsules, powders.
- Liquid dosage forms: solutions, suspensions, emulsions.
- Semisolid dosage forms: creams, ointments, gels.
- Sterile dosage forms: injections, ophthalmic preparations.
- Modified-release formulations: sustained, controlled, delayed release.
- Targeted drug delivery systems.
- Excipients: binders, disintegrants, lubricants.
- Stability considerations: chemical, physical, microbiological.

Day 4: Pharmacokinetics: Applied Calculations and Clinical Applications

- Compartmental models: one-compartment, two-compartment.
- Clearance and elimination rate constant.
- Half-life and steady-state concentration.
- Loading and maintenance doses.
- Bioequivalence studies.
- Pharmacokinetics in special populations: renal impairment, hepatic disease.
- Therapeutic drug monitoring.
- Drug interactions: pharmacokinetic aspects.

Day 5: Pharmacology of Major Drug Classes – Part 1

- Antihypertensives: ACE inhibitors, ARBs, beta-blockers, calcium channel blockers.
- Drugs for heart failure: diuretics, digoxin, vasodilators.
- Antiarrhythmics: Vaughan Williams classification.
- CNS depressants: benzodiazepines, barbiturates.
- Antidepressants: SSRIs, SNRIs, MAOIs.

- Antipsychotics: typical and atypical.
- Opioid analgesics: morphine, fentanyl.
- Adverse effects and drug interactions.

Day 6: Pharmacology of Major Drug Classes – Part 2 and Antimicrobials

- Drugs for diabetes: insulin, oral hypoglycemics.
- Corticosteroids: anti-inflammatory and immunosuppressive effects.
- Drugs for asthma: bronchodilators, inhaled corticosteroids.
- Antibacterials: beta-lactams, macrolides, fluoroquinolones.
- Antivirals: mechanisms and resistance.
- Antifungals and antiparasitics.
- Antimicrobial stewardship.
- Drug interactions with antimicrobials.

Day 7: Integration into Medicine Information Practice

- Medicine information services: structure and function.
- Evaluating drug literature: study design, bias, statistics.
- Drug information resources: databases, formularies, guidelines.
- Answering medicine information queries: systematic approach.
- Communicating drug information: verbal and written.
- Pharmacovigilance and adverse drug reaction reporting.
- South African regulatory framework: SAHPRA, scheduling.
- Case studies and practical exercises.

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 **10 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 21,700.00	R 21,700.00
1	In-House	R 28,200.00	R 28,200.00
1	On-Campus (Pretoria)	R 32,600.00	R 32,600.00

UPCOMING SESSIONS

Start	End	Method	Venue
21 Aug 2026	31 Aug 2026	On-Campus	Shenzhen, China
24 Aug 2026	01 Sep 2026	On-Campus	Bangkok, Thailand
25 Aug 2026	02 Sep 2026	On-Campus	Victoria Falls, Zimbabwe
25 Aug 2026	02 Sep 2026	On-Campus	Abu Dhabi, UAE
26 Aug 2026	03 Sep 2026	On-Campus	Durban, South Africa
27 Aug 2026	04 Sep 2026	On-Campus	Shenzhen, China
28 Aug 2026	07 Sep 2026	On-Campus	Harare, Zimbabwe
31 Aug 2026	08 Sep 2026	On-Campus	Victoria Falls, Zimbabwe

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 259364) 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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