

Occupational Certificate: Artificial Intelligence Software Developer

SAQA ID: 251201002

NQF Level: 5

Credits: 209 (86 Knowledge + 63 Practical + 60 Work Experience)

Duration: 24 Months

Mode: Face to Face / Hybrid / Blended

Course Page

1. Course Overview

The **Occupational Certificate: Artificial Intelligence Software Developer** prepares learners to design, build, and deploy AI-powered applications. Learners gain strong foundations in mathematics, statistics, data science, and computing, while developing practical expertise in AI, machine learning, and deep learning. The course is designed for aspiring AI developers who want to create intelligent solutions that mimic human decision-making, improve automation, and transform business processes.

2. Entry Requirements

- A minimum of **NQF Level 4** (Matric or equivalent)
- Basic programming knowledge is beneficial but not required
- Strong analytical and problem-solving skills recommended

3. Exit Outcomes

- On completion, learners will be able to:
- Interpret solution design documentation to develop AI solutions.
- Build AI solutions using Python, machine learning, and deep learning techniques.
- Train AI models and test performance to ensure accuracy and reliability.
- Deploy AI models into production and continuously improve them.
- Apply ethical principles and function effectively in multidisciplinary teams.
- Use databases, data visualisation, and programming to support AI projects.

4. Career Pathways

- This qualification prepares learners for roles such as:
- Artificial Intelligence Software Developer
- Machine Learning Engineer
- Data Scientist (entry-level)
- AI Solutions Developer
- Python Developer with AI specialization

5. Assessment & Certification

- **Assessment Method:** Formative (assignments, practical projects) + workplace-based experience + final external integrated summative assessment via QCTO.
- **Credits Awarded:** 209
- **Certification:** Occupational Certificate: Artificial Intelligence Software Developer (SAQA ID 251201002)

6. Learning Methodology

- Blended learning (Online modules + Instructor-led sessions)
- Practical coding projects and case studies
- Hands-on Python, SQL, TensorFlow, and AI labs
- Workplace-based experience with real AI solution development
- Innovation and design-thinking workshops

7. Accreditation

- This programme is accredited by:
- **SAQA:** Occupational Certificate: Artificial Intelligence Software Developer (ID 251201002)
- **NQF Level:** 5
- **Quality Council for Trades and Occupations (QCTO)**
- **Assessment Quality Partner (AQP):** MICT SETA