



FACT SHEET

OCCUPATIONAL CERTIFICATE: SOFTWARE DEVELOPER | NQF LEVEL 5

About the qualification

The purpose of this qualification is to prepare a learner to operate as a Software Developer. A Software Developer analyses a set of requirements, translates these into a working software solution using a programming language. They test, implement and maintain software applications to meet client specifications as well as functional and technical requirements.

Type of qualification

This professional qualification is governed by the Quality Council of Trades and Occupations (QCTO) which was established under the terms of the Skills Development Act to oversee occupational qualifications from design to certification. Focusing on occupational qualifications, the QCTO aims to ensure that South Africa has the qualified workforce it needs to succeed. The QCTO also assists those who provide qualifications on an occupational level, accrediting them and ensuring they meet the required standards.

Career & Job Opportunities

Upon successful completion of the Occupational Certificate in Software Developer, graduates will be well-prepared to enter the workforce as skilled software developers. They can pursue various career paths, including:

- Junior Software Developer
- Web Developer
- Mobile App Developer

- Full-Stack Developer
- Software Engineer
- Front-end Developer
- Back-end Developer

A qualified learner will be able to:

- Interrogate the specification and problem and interpret it into code and articulate in writing.
- Build a logical flow using the framework and methodologies at their disposal to propose possible solutions to business challenges.
- Programme effectively using a suitable programming language to develop and test new solutions and update existing solutions.

Admission Requirements

- The minimum entry requirement into this qualification is an NQF Level 04.

Duration

- The duration of study for this professional qualification is 12 months, where you, the learner, will be responsible for addressing the online content and completing all the necessary activities in preparation for the subject sessions and exams.

International comparability

- The Occupational Certificate: Software Developer was compared with the training provided in the United States of America and Australia since they appear to be leaders in this aspect.



Subjects covered

SEMESTER 1		
SET 1	SUBJECT 1	• KM01: Computers and Computing Systems • KM02: Desktop and Professional Software to Communicate and Visualise Information • PM01: Use Software to Communicate and Visualise Information • PM02: Use and Manage Spreadsheets and Workbooks • PM03: Use Desktop Applications to Analyse, Visualise and Report on Data
SET 2	SUBJECT 2	• KM03: Automated Web Scraping as a Data Source • KM04: Logical Thinking and Basic Calculations • PM04: Use a Visual Analytics Platform and Visualisation Tools to Analyse, Visualise and report on Data • PM05: Query and Massage Data • PM06: Apply Logical Thinking and Maths
SET 3	SUBJECT 3	• KM05: Computing Theory • KM06: Software Development with HTML5, Opensource Frameworks and Libraries • PM07: Apply Code to use a Software Toolkit/Platform in the Field of Study or Employment • PM08: Develop Software using HTML5, Opensource Frameworks and Libraries • WM01: Technical Requirement Analysis and Refinement
		REVISION
		EXAMINATION

SEMESTER 2		
SET 4	SUBJECT 4	• KM07: UML as Standard Modelling Language for Software and Systems Development • KM08: Obtaining, Querying, Manipulating and Presenting Data with and without MVC • PM09: Design and Build Web Applications, Desktop Graphical User Interfaces or Mobile Apps • PM10: Use a Cloud Automation Platform to Create Solutions • WM02: Modelling Processes
SET 5	SUBJECT 5	• KM09: Software Development Life Cycle, Programming Languages, Algorithms and Security • KM10: Introduction to Governance, Legislation and Ethics • PM11: Develop Software using Python • PM12: Apply the Development Cycle when Developing Software • WM03: Programming for Software Solution Development
SET 6	SUBJECT 6	• KM011: 4IR and Future Skills • KM12: Design Thinking Principles for Innovation • PM13: Participate in a Design Thinking for Innovation Workshop • PM14: Function Ethically and Effectively in a Team • WM04: Capstone project
SET 7	FINALISATION OF EVIDENCE COLLECTION	REVISION
		EXAMINATION



Examination

For each subject, there will be an examination component (knowledge and practical). All subject exams will have to be successfully completed, as well as all Workplace evidence collected, logged and signed off, to be considered for the External Integrated Summative Assessment (EISA).

Course material and exam fees

Study material, textbook and examination fees are included in the tuition fee. Students are required to cover any additional costs associated with practical activities and excursions.

Language policy

All classes and assessments are conducted in English. Learners need to be able to understand spoken English and complete their assessments in English.

Disclaimer

Amilak Training Center reserves the right to change the programme content due to changes in the regulatory environment, market requirements and other reasons. All possible measures will be taken to minimise inconvenience to students.

I, _____ (student name),
hereby acknowledge that I understand the information stated in this factsheet and fully comprehend the specifics explained above pertaining to this qualification.

Student signature: _____ Date: _____



About us

We are a fully accredited Private Technical and Vocational Education and Training (TVET) College which offers a wide range of quality Online and face-to-face tertiary learning opportunities. Certificates, Diplomas & professional qualifications can be obtained in Procurement and Supply chain management, business management, accounting, information technology and engineering. In addition, we also offers customised corporate training, procurement consulting services as well as a wide range of short courses.

We are accredited as a skills development service provider under the Quality Council for Trade and Occupation (QCTO) and Department of Education (DHET). Furthermore, we are an approved Chartered Institute of Procurement and Supply (CIPS) Study and Examination Centre. Other registrations include the Institute for Chartered Bookkeepers (ICB) the Sector Education and Training Authority (SETA) (MICT & SERVICES-SETAS).

Accreditations

Department of Education (DHET): 899992818
Mict-Seta Number: ACC /2015/07/0035
QCTO – Nated N4 – N6: QCTO Nated/15/0108
CIPS Accreditation Number: 005544659
ICB Accreditation Number: 300929
Services–Seta Number: 13238

We are guided by the philosophy of excellence through education and making a difference in our communities. We offer skills development programmes that contribute to the ever increasing occupational skills in our nation and beyond.

We also offer research, workshops, conferencing and customised corporate training.

Institutions we partner with

