

PROGRAMME TITLE	NQF	SAQA ID	CREDITS
<b>Occupational Certificate: Software Engineer</b>	<b>6</b>	<b>119458</b>	<b>240</b>

## DESCRIPTION

The purpose of this qualification is to prepare a learner to function as a Software Developer. A Software Engineer researches, analyses, and evaluates requirements for existing or new software applications and designs, develops, deploys, tests within scope of work (debugs) and maintains software applications. Typical learners to enrol for this qualification are people with workplace experience in the systems development areas who would like to formalise their training; other professionals, school leavers and qualifying learner, who have already been exposed to the system development area and want to pursue a career towards Software Engineers. Upon completion of this qualification, learners may gain employment in the Software Engineering field within the Information and Communication Technology (ICT) industry and all other industries that require ICT services.

## CAREER FIELDS

With this qualification, successful learners could pursue a career as a:

- Computer Programmers
- Software Engineers
- Database Administrators
- Network Administrator
- Web Designer

## PROGRAMME OUTLINE

Knowledge Modules

- 251201-001-00-KM-01, Software Engineering, Level 6, 20 Credits.
- 251201-001-00-KM-02, Programming, Level 6, 20 Credits.
- 251201-001-00-KM-03, Database Design and Information Systems, Level 6, 15 Credits.
- 251201-001-00-KM-04, Fundamentals of Project Management in Relation to Software Engineering, Level 5, 5 Credits.
- 251201-001-00-KM-05, Digital and Business Mathematics, Level 5, 15 Credits.

Total number of credits for Knowledge Modules: 75

Practical Skill Modules

- 251201-001-00-PM-01, Document System Design, Level 6, 25 Credits.
- 251201-001-00-PM-02, Design and Manipulate Databases, Level 5, 5 Credits.
- 251201-001-00-PM-03, Programme and Deploy Applications, Level 6, 25 Credits.
- 251201-001-00-PM-04, Test or Debug Source Code to Ensure Client's needs are met, Level 5, 15 Credits

Total number of credits for Practical Skill Modules: 70.

Work Experience Modules

- 251201-001-00-WM-01, Software Design, Level 6, 30 Credits.
- 251201-001-00-WM-02, Database Design and Manipulation, Level 5, 20 Credits.
- 251201-001-00-WM-03, Software Development, Level 6, 30 Credits.
- 251201-001-00-WM-04, Software Testing, Level 5, 15 Credits.

Total number of credits for Work Experience Modules: 95

## TYPE OF PROGRAMME

The programme duration is 2 years on a full-time basis. Tuition is face to face and is scheduled per campus. Programmes are offered during the week on a full-time and part-time basis. Part-time tuition is scheduled as per the stipulated planner.

## ADMISSION REQUIREMENTS

The minimum entry requirement for this qualification is:

- Any NQF Level 4 qualification

## LEARNER MATERIAL

Prescribed textbook lists will be provided by the academic department at your campus. Students will receive electronic versions of the study guides for this programme.

## PRICING

Enquire at the Berea College of Technology campus for a current programme pricelist.



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### ADDITIONAL COSTS

Students must make provision for additional items such as textbooks, stationery, supplementary examinations, research costs and printing of study guides etc.

### EXAMINATION AUTHORITY

In terms of the Skills Development Act, 1998 (Act 97 of 1998), the QCTO accredits assessment centres to conduct the External Integrated Summative Assessment (EISA) (link to EISA information brochure PDF) for specified occupational qualifications, part-qualifications or trades recorded on the National Learners' Records Database (NLRD) but without an associated occupational qualification.

#### Integrated Assessment

Integrated Formative Assessment: The skills development provider will use the curriculum to guide them on the stipulated internal assessment criteria and weighting. They will also apply the scope of practical skills and applied knowledge as stipulated by the internal assessment criteria. This formative assessment together with work experience leads to entrance in the integrated external summative assessment.

Integrated Summative Assessment: An external integrated summative assessment, conducted through the relevant QCTO Assessment Quality Partner is required for the issuing of this qualification. The external integrated summative assessment will focus on the exit level outcomes and associated assessment criteria. The assessment will be conducted through written assessment and the evaluation of practical tasks at decentralised approved assessment sites by a panel of assessors evaluated by assessor(s) registered with the AQP within a period of 1 day.

EISA is a single, national assessment which leads to competent learners being awarded Occupational Certificates. It is an integral and critical component of QCTO's quality assurance system, as it ensures that the assessment of occupational qualifications, part-qualifications and trades is standardised, consistent and credible. Qualifying for External Assessment: To qualify for an external assessment, learners must provide proof of completion of all required knowledge and practical modules by means of statements of results and a record of completed work experience.

### CERTIFICATION

On successful completion of the programme, the student will receive a statement of result from Berea College of Technology and upon meeting the EISA requirements, receive an Occupational Certificate: Software Engineer from the QCTO.

### ARTICULATION

This qualification provides opportunities for horizontal and vertical articulation options.

#### Horizontal Articulation:

- Diploma in Information Technology in Software Development, NQF Level 6.
- Diploma in Information Technology in Web Development, NQF Level 6.
- Diploma in Information Technology Management, NQF Level 6.

#### Vertical Articulation:

- Bachelor of Information Technology in Business Systems, NQF Level 7.

### FURTHER STUDIES

Please enquire at the nearest Berea College of Technology campus for the prospectus containing post-certificate studies. Admission to further your studies at a different institution remains the prerogative of each institution and its academic council.



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**DISCLAIMER**

The information contained in this fact sheet is accurate at the time of printing. However, factors beyond Berea College of Technology control (such as environmental, regulatory or technical changes) may cause the contents of this fact sheet or of the programme to change. In the event of any such change, Berea College of Technology will formally notify current learners. All possible measures will be taken to minimise inconvenience to learners.

Name of Learner: I....., hereby acknowledge that I understand the information stated in this document and fully comprehend the specifics explained above pertaining to this qualification.

Signature of Learner: .....

Name of Legal Guardian: ..... Signature: .....  
(if applicable)

Name of Sales Consultant: ..... Signature: .....

Name of Head of Department: ..... Signature: .....

Date: .....

\* Please note the original signed copy should be kept on the learner record file.

