

PROGRAMME TITLE	NQF	SAQA ID	CREDITS
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY	7	123426	360

DESCRIPTION

In developing this qualification, we derived a lot of inspiration from recent South African labour market trends. As a country, South Africa faces a human resources crisis with a massive deficit of ICT-based skills if the issue is not attended to urgently. Skills such as data scientists, software developers, network analysts, and cyber security specialists have been identified to be in short supply. This degree program was inspired by the need to address the shortage of highly skilled software developers whose skills cannot be underestimated. It can be concluded, unambiguously, that it is crucial to formulate academic programs that address this pressing need. The aim of this degree qualification is thus to equip students with software development skills that allow them to navigate the increasing demand for highly specialised skills. Our approach provides theoretical and professional skills to enable our graduates to formulate unique and relevant software solutions to address societal needs and challenges.

CAREER FIELDS

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

- Software Developer / Engineer
- Systems Analyst
- Database Administrator
- Network Administrator / Engineer
- Cybersecurity Analyst
- IT Support Specialist
- Web Developer
- Mobile App Developer
- Cloud Support Engineer

PROGRAMME OUTLINE

1 st Year, 1 st Semester				1 st Year, 2 nd Semester			
Module	Module Code	Credits	NQF	Module	Module Code	Credits	NQF
Algorithm design and programming concepts		15	5	Object-oriented Programming		15	5
Fundamentals of Computer Networks		15	5	Scaling Networks		15	5
Business Communication		15	5	Discrete mathematics		15	5
Fundamentals of Web Technologies		15	5	Emerging technologies for the 4th Industrial revolution		15	5
2 nd Year, 1 st Semester				2 nd Year, 2 nd Semester			
Software development Methodologies		15	6	Business, Project Analytics, and Approaches		15	6
Relational and NoSQL Database Systems		15	6	Cloud Systems		15	6
Advanced Web Development		15	6	Information Systems Security		15	6
Data Structures and Algorithms		15	6	Mobile App Development		15	6



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3 rd Year, 1 st Semester				3 rd Year, 2 nd Semester			
Secure software development		15	7	Machine Learning and Intelligent Systems Development		15	7
Cloud software development		15	7	User Experience Design		15	7
Software Development Integrated Project		15	7	Work integrated Learning [WIL]		15	7
Design thinking		15	7	Software testing and maintenance		15	7

All modules are compulsory. The student requires 360 credits to obtain the bachelor degree.

The Bachelor's degree in IT covers two different NQF levels starting from level 5, 6 and 7 and with compulsory modules without any electives. The programme adopts the following rules of combination :

For the first-year modules, there are no prerequisites and follow minimum entry requirements to the programme. However, a student should be allowed to progress to the next year of study only if they pass a minimum of 4 modules in the first year of study. From the second year onwards, a student can only progress into the following year if they pass at least four of the eight modules. Prerequisite rules do not apply for first-year modules as the programme minimum entry requirements will be applied in admitting a learner to the programme. Starting from the second year of study, prerequisites apply as follows:

- 1) Prerequisites for Advanced web technologies and Data Structures and Algorithms are Object-oriented programming and Fundamentals of Web Technologies
- 2) The prerequisite for Mobile Application development is Object-oriented programming
- 3) Prerequisites for Cloud Computing II is Fundamentals of cloud computing
- 4) The prerequisites for the Software development Project are Advanced web technologies, Mobile Application development and Relational and NoSQL Database Systems

TYPE OF PROGRAMME

The programme duration is 3 years on a full-time basis, or 4 years on a part-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 the Bachelor of Science in IT is the following:

The admission requirements include a National Senior Certificate or equivalent with an endorsement for admission to a Degree, with a pass in Maths and one Science Subject. A Level Students Pass in 2 subjects and O Level Students who have passed 12th class, or an equivalent A level examination or Senior Secondary School Certificate or a technical diploma after Secondary School Certificate with English and Maths in of the Secondary Education system. Mature Age Exemption for students above the age of 23 as set out in the Higher Education Regulations. Recognition of Prior Learning (RPL).

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.

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

All Examinations are set by Berea College of Technology.



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CERTIFICATION

On successful completion of the programme, the student will receive a Berea College of Technology Bachelor of Science in Information Technology.

ARTICULATION

The Bachelor of Science in Information technology degree articulates vertically to a postgraduate Diploma or Honours degree in IT. The programme also articulates horizontally, vertically, and diagonally with various IT programmes offered by institutions both locally and internationally.

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.

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:
(if applicable)

Signature:

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.

