Faculty of
Information Technology

Eduvos
Your Education. Your Future

Bachelor of Science in Information Technology (Security and Network Engineering)

SAQA ID 80887 NQF level 7

Qualification duration

Part-Time

Minimum: 5 years
Maximum: 7 years

Qualification description

Future-proof your skills with Eduvos. The specialised nature of this degree prepares you for work in many areas in the Information Technology industry that are related to Computer Networking, Network Analysis, Cybersecurity and IP Network Engineering.

Security and Network Engineering is a branch of Information Technology that is inclined towards the application of principles used in the field of engineering and computing, for the design and implementation of computer networks which focuses on high-level design and planning.

This qualification is specially designed for students interested in the selection and configuration of appropriate data communication components to meet users and corporate needs. It will also help students in gaining the expertise required for the construction of a reliable and high-performing network integrating LAN, WAN, Internet, and intranet components which entail network modelling and analysis.

Furthermore, students will be equipped with the knowledge required to secure a network by adopting relevant policies and practices to prevent and monitor unauthorised access, misuse, modification, or denial of computer network and network-accessible resources. Substantial knowledge required to defend computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks will also be gained.

You will also develop essential skills for the world of work, such as analytical and abstract thinking, effective decision-making self-discipline, being innovative, adapting to change, working in teams and communicating effectively.

This qualification is offered at the following campuses:

- Bedfordview
- Midrand
- Pretoria
- Tyger Valley

Qualification accreditation

- Accredited by the Higher Education Quality Committee (HEQC) of the Council on Higher Education (CHE)
- Registered with the South African Qualifications Authority (SAQA)

Entry requirements

South African National Senior Certificate (NSC) with Bachelor's degree endorsement.

Or

A National Certificate (Vocational) level 4 issued by the Council of General and Further Education and Training with Bachelor's degree endorsement.

Or

A letter or certificate confirming an exemption from Universities South Africa (USAf) for any other school-leaving results.

Or

Completion of a Bachelor's degree.

Or

Completion of a relevant Foundation Programme along with a letter or certificate of exemption from Universities South Africa (USAf).

Or

Completion of a relevant Higher Certificate.

A student with Mathematics Literacy (50% or more) must enrol for, and complete, Introduction to Mathematics and Mathematics for Degree Studies B (IT) before attempting Mathematics 1A.
A student with Mathematics (less than 50%, but greater than or equal to 30%) must enrol for, and complete Mathematics for Degree Studies B (FPMIA0) before attempting Mathematics 1A (ITMTA1).

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Qualification structure

Year 1

This year of study lays the foundation down for students and aims to focus on the basic principles of programming with regards to specific if software languages, computer literacy (Microsoft), the fundamentals of hardware and networking.

- Advanced Information and Computer Skills
- Business English
- Computer Network and Security
- Computer Skills
- Human Computer Interaction
- Introduction to Information Systems
- Introduction to Programming
- Mathematics 1A
- Procedural Programming
- Technical Writing and Communication

Year 2

This year of study builds on the foundation of the first year. More group engagement is encouraged, and focus is placed on specialised modules that prepare the students for this specialised stream.

- Database Management System
- Database System Design, Implementation and Management
- Internet Server Management
- IT Project Management
- Network Security
- Software Process, Architecture Design and Quality Assurance
- Systems Analysis and Design

Year 3

During this year, students are encouraged to think for themselves. All modules focus mainly on higher-order thinking.

- Cloud Computing: A Practical Approach
- Industry 4.0
- Logistics and Supply Chain Management
- Object Oriented System Analysis and Design
- Operating Systems
- Project: Cyber Security
- Social Practices and Security
- Soft Skills for IT Professionals
- Web Development and e-Commerce

Possible career options

Career choices for you, as a Bachelor of Science in Information Technology (Security and Network Engineering) graduate, are varied and employment opportunities exist in both IT and in business:

- Database Administration
- Database Management
- IT Project Management
- IP Network Engineering
- Systems Analysis and Design
- Hardware, Network and Cybersecurity
- Cloud Computing