



Higher Certificate in Computing (Website Design and Development)

SAQA ID 120669 NQF Level 5

🕒 Qualification duration

Contact

Full-Time (Campus)

- Minimum: 1 year
- Maximum: 3 years

Full-Time (Online)

- Minimum: 2 years
- Maximum: 4 years

☰ Qualification description

The Higher Certificate in Computing is an intensive, career-focused qualification designed to give students a solid background in computing and its real-world applications. This qualification aims to widen access to higher education and boost career prospects in the rapidly evolving field of information technology (IT).

This qualification provides a robust foundational understanding of the key concepts in computing, ensuring students gain proficiency in a comprehensive core of essential skills. The programme structure is designed to align with current industry needs and global IT trends, thereby ensuring the skills acquired are relevant and in demand.

The emphasis on performance-based learning and performance-based assessments is a distinguishing feature of this programme. These allow students to demonstrate their practical skills and competencies, providing tangible evidence of their abilities to prospective employers. Students will graduate with not only the theoretical knowledge required to understand the complex world of IT but also the practical skills to apply this knowledge effectively.

Students who complete the qualification will be able to demonstrate problem-solving, critical thinking, and analytical reasoning skills, as well as be well-prepared to enter the workforce in a variety of IT roles or advance to more specialised IT programmes or bachelor's degrees in related fields.

✅ Entry requirements

- South African National Senior Certificate (NSC) with Bachelor's degree, Diploma or Higher Certificate pass.
- Or a National Certificate (Vocational) Level 4 issued by the Council of General and Further Education and Training with a Bachelor's degree, Diploma or Higher Certificate pass.
- Or a Certificate of evaluation on a minimum NQF level 4 for foreign qualification issued by SAQA.
- 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, Diploma, Higher Certificate or equivalent.



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).



Possible career options

Careers for you, as a Higher Certificate in Computing graduate, are varied and include:

- Database Developer, IT Project Manager
- Network Administrator, Network Engineer
- Python Programmer
- Security Engineer, Information Security Analyst
- Web Designer, Web Developer

This qualification is offered at the following campuses:

- | | |
|---------------------------|----------------------|
| • Bedfordview | • Mbombela |
| • Bloemfontein | • Midrand |
| • Cape Town: Mowbray | • Nelson Mandela Bay |
| • Cape Town: Tyger Valley | • Potchefstroom |
| • Durban | • Pretoria |
| • East London | • Vanderbijlpark |



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Qualification structure

Year 1

- Database Design and Development
- Managing a Successful Computing Project
- Maths for Computing
- Networking
- Professional Practice
- Programming Fundamentals
- Security
- Website Design and Development

Partnerships and Memberhips

Eduvos is proud to announce the following memberships and/or partnerships with the following:

- Computing Technology Information Association (CompTIA) *
- Amazon Web Services (AWS) Academy **
- The Institute of IT Professionals South Africa (IITPSA)
- Institute of Chartered IT Professionals (ICITP) South Africa
- South African Artificial Intelligence Association (SAAIA)
- Integrated Electronics Corporation (Intel)

* Eduvos is a proud CompTIA partner. Through this partnership, students who opt for streams incorporating CompTIA modules, will qualify to attempt certification exams at partner pricing. Some streams include mandatory vouchers, while others offer them as optional. You may also inquire about additional CompTIA certifications that are available at our institution. All vouchers are applicable only for the first sitting and the certification exam fees are added to the course fee.

** Eduvos is an AWS Academy member institute and is authorised to teach AWS Academy courses.



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Module descriptors

Year 1

Database Design and Development

In this module, students will develop and translate an understanding of the concepts and issues relating to database design and development into the design and creation of complex databases.

Database design and development is a fundamental and highly beneficial skill for computing students to master, regardless of their specialisation. Thus, an understanding of database tools and technologies is an essential skill for designing and developing systems to support them.

Among the topics included in this module are examination of different design tools and techniques, examination of different development software options, considering the development features of a fully functional robust solution covering data integrity, data validation, data consistency, data security and advanced database-querying facilities across multiple tables, appropriate user interfaces for databases and for other externally linked systems, creating complex reports (or dashboards), testing the system against the user and system requirements, and elements of complete system documentation.

On successful completion of this module, students will be able to:

- Use an appropriate design tool to design a relational database system for a substantial problem.
- Develop a fully functional relational database system, based on an existing system design.
- Test the system against user and system requirements.
- Produce technical and user documentation.

Managing a Successful Computing Project

The aim of this module is to provide students with a platform to showcase their competency in managing and executing a computing project within a professional setting. This encompasses the application of both theoretical knowledge and practical skills pertinent to the field. Students will undertake independent research and investigation for carrying out and executing a computing project, which meets appropriate aims and objectives. This module will enable students to explore and examine a relevant and current topical aspect of computing in the context of a business environment. Students will conduct independent research and exploration to execute a computing project that aligns with pertinent aims and objectives. This process will foster their confidence in decision-making and problem-solving, leveraging project management skills for research activities.

On successful completion of this module, students will be able to:

- Establish project aims, objectives and timeframes based on the chosen theme.
- Conduct small- and medium-scale research, information gathering, and data collection to generate knowledge to support the project.
- Present the project and communicate appropriate recommendations based on meaningful conclusions drawn from the evidence findings and/or analysis.
- Reflect on the value gained from conducting the project and its usefulness to support sustainable organisational performance.



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Module descriptors

Year 1

Maths for Computing

The aim of this module is to provide students with a strong foundation in essential mathematical concepts, techniques, and their applications, enabling them to effectively solve computational problems and enhance their problem-solving skills in computer science and related fields.

In this module, students will engage with number theory, probability theory, geometrical and vector methods, as well as differential and integral calculus through a combination of case studies, scenarios, and task-based assessments. These diverse approaches will allow them to apply these mathematical theories and methodologies across a range of scenarios, ultimately enabling them to evaluate and solve complex problems in these areas. This module covers a range of topics such as prime number theory, sequences and series, probability theory, geometry, and the fundamentals of differential and integral calculus.

On successful completion of this module, students will be able to:

- Use applied number theory in practical computing scenarios.
- Analyse events using probability theory and probability distributions.
- Determine solutions of graphical examples using geometry and vector methods.
- Evaluate problems concerning differential and integral calculus.

Networking

The aim of this module is to provide students with wider background knowledge of computer networking essentials, how they operate, protocols, standards, security considerations and the prototypes associated with a range of networking technologies.

Students will explore a range of hardware, with related software, and will configure and install these to gain knowledge of networking systems. A range of networking technologies will be explored to deliver a fundamental knowledge of Local Area Networking (LAN), Wide Area Networking (WAN) and their evolution to form large-scale networks and the protocol methodologies related to IP data networks will be explored.

Students will gain knowledge and skills to successfully install, operate, and troubleshoot a small network; and the operation of IP data networks, router, switching technologies, IP routing technologies, IP services and basic troubleshooting.

On successful completion of this module, students will gain knowledge and skills to successfully:

- Examine networking principles and their associated protocols.
- Explain networking devices and operations.
- Design efficient networked systems.
- Implement and diagnose networked systems.