

Career Profile: IT Technician

IT technicians support computer users with any technical issues. They resolve hardware or software problems either over the phone or face-to-face. A quick search on the Internet reveals the range of hardware and software that is available and upgrades and new products are continually being introduced to the market. IT technicians are expected to keep up to date with the latest technologies while still helping users with older equipment and software.

One of the main challenges facing a technician is to diagnose what the real problem is that needs fixing, especially when dealing with a non-technical person who usually finds it difficult to describe what the problem is.

Education Requirements

National Senior Certificate (NSC)

For a career in ICT students are advised to select Mathematics and to add to this a selection from the designated subjects. These are subjects that are particularly suitable for tertiary study.

Technicians can study at a University of Technology for a National Diploma or a BTech Degree.

Bachelor Degree

Students who want to become IT professionals and who see the technician level as a starting point should consider doing a BSc degree.

Bachelor of Science (Computer Science) – BSc (CS) (3 years)

Bachelor of Science (Information Technology) - BSc (IT) (3 years)

Generally the computer science degree focuses more on the theoretical base while the information technology degree focuses more on applications.

Offered at:

- [North-West University](http://www.puk.ac.za/fakulteite/ing/electrical/index_e.html)¹ (Potchefstroom Campus - Electrical, Electronic and Computer Engineering)
- [University of Johannesburg](http://www.uj.ac.za/csweb/Courses/Undergraduate/BScIT/tabid/8855/Default.aspx)² (Academy of Information Technology)
- [University of Limpopo](http://www.ul.ac.za/index.php?Entity=School%20Main%20Menu&school_id=1)³ (School of Computational and Mathematical Sciences)

¹ http://www.puk.ac.za/fakulteite/ing/electrical/index_e.html

² <http://www.uj.ac.za/csweb/Courses/Undergraduate/BScIT/tabid/8855/Default.aspx>

³ http://www.ul.ac.za/index.php?Entity=School%20Main%20Menu&school_id=1

- [University of Pretoria](#)⁴ (Computer Science)
- [University of the Witwatersrand](#)⁵ (School of Computer Science)
- [University of Venda](#)⁶ (Computer Science and Information Systems)
- [UNISA](#)⁷ (College of Science, Engineering and Technology)

Specializations offered:

North-West University

BSc (Information Technology), BSc (Computer and Electronic Engineering) (in Afrikaans only)

University of Johannesburg

BSc (Information Technology)

University of Limpopo

BSc (Computer Science)

University of Pretoria

BSc (Computer Science), BSc (Computer Engineering – 4 years)

University of the Witwatersrand

BSc (Computer Science)

University of Venda

BSc (Computer Science)

UNISA

BSc with specialisation in Information Technology and Computer Science (Scientific computing stream)

National Diploma / BTech

The National Diploma is a three year course which includes guided practical experience. The diploma is a pre-requisite for admission to a **Bachelor of Technology - BTech**.

Offered at:

- [Tshwane University of Technology](#)⁸ (Department of Computer Networks)
- [University of Johannesburg](#)⁹ (Department of Electrical and Electronic Engineering Technology)
- [UNISA](#)¹⁰ (College of Science, Engineering and Technology)

⁴ <http://www.cs.up.ac.za/prospective/undergrad>

⁵ <http://www.cs.wits.ac.za/>

⁶ http://www.univen.ac.za/math_natural_sciences/computer.html

⁷ http://brochure.unisa.ac.za/brochure/showprev.aspx?d=s_7786&f=s_7788

⁸ http://www.tut.ac.za/Students/facultiesdepartments/informationcommunicationtech/departments/Documents/comp_networks.pdf

⁹ <http://www.uj.ac.za/Default.aspx?alias=www.uj.ac.za/compengineer>

¹⁰ http://brochure.unisa.ac.za/brochure/showprev.aspx?d=l_4_23&f=p_NDEEN

- [Vaal University of Technology](#)¹¹ (Applied and Computer Sciences Department)

An alternative is to gain some basic experience and possibly enrol for shorter courses to prepare for A+, N+ and/or MCSE (Microsoft Certification in Software Engineering) examinations.

Specializations offered:

There are a number of National Diplomas and BTech degrees to consider.

Tshwane University of Technology

National Diploma: IT (Support services), IT (Engineering: Computer Systems), IT (Intelligent Industrial Systems)

BTech: IT (Support services), Computer Systems, IT (Intelligent Industrial Systems)

University of Johannesburg

National Diploma: Engineering (Computer Systems)

BTech: Engineering (Computer Systems)

Vaal University of Technology

National Diploma: Engineering (Computer Systems)

BTech: Computer Systems

Admission requirements

As admission requirements vary from one institution to another, find out what the specific requirements are by checking on the website and contacting the university if you have any queries.

Certifications

Various levels of experience are required in addition to the knowledge and skills required to gain certification.

- Comptia A+ certifies the competency of service professionals in the computer industry. It is a vendor neutral certificate developed by the Computing Technology Industry Association (CompTIA) that is internationally recognized. Membership of CompTIA includes most of the global software and hardware manufacturers such as Microsoft, IBM, Lotus, Dell, Compaq, etc.
- Comptia N+ the network plus certification recognizes a technician's ability to recognize and install, configure and troubleshoot basic networking hardware, protocols and services.
- MCSE (Microsoft Certified Systems Engineer) certification. It is intended for professionals who analyze the business requirements and design and implement the infrastructure for business solutions based on the Microsoft

¹¹ http://www.vut.ac.za/new/index.php?option=com_content&view=article&id=47&Itemid=693

Windows 2000 platform and Microsoft Windows Server System. Certification is also available for 2003 and 2008.

Resource providers

- [Microsoft provides access to information about relevant resources](#)¹²
- [Training Web provides a list of training providers](#)¹³
- [ITweb](#)¹⁴

Possible Employers

- Public service departments at local, provincial and national levels.
- Banks such as [ABSA](#)¹⁵, [Standard](#)¹⁶, [First National](#)¹⁷
- Cell phone companies, e.g. [Cell C](#)¹⁸, [MTN](#)¹⁹, [Vodacom](#)²⁰
- [Telkom](#)²¹, [Eskom](#)²², [Transnet](#)²³
- Large and medium size companies
- IT consultancies

Find out more

Find out more about planning, buying and merchandising, bursaries and jobs:

- [Information on the A+ certification](#)²⁴
- [The Computing Technology Industry Association \(CompTIA\)](#)²⁵. It has a list of other certifications as well.
- A model of the [technical Microsoft certifications](#)²⁶ with descriptions
- [Techforum](#)²⁷
- A useful [computer science career guide](#)²⁸ with many links
- An [article about the demand for ICT skills](#)²⁹
- [A 2006 article](#)³⁰ – ICT sector seeks experience, makes the point about the value of vendors' certification for one or more of their products when seeking employment in the sector.

¹² <http://www.microsoft.com/learning/mcp/default.msp>

¹³ <http://www.trainingweb.co.za/CourseCompanies.asp?CourseID=414&Category=IT%20and%20Business%20management>

¹⁴ <http://www.itweb.co.za/events/ictskills/survey.asp>

¹⁵ <http://www.absa.co.za/>

¹⁶ <http://www.standardbank.co.za/>

¹⁷ <http://www.fnb.co.za/>

¹⁸ <http://www.cellc.co.za/>

¹⁹ <http://www.mtn.co.za/>

²⁰ <http://www.vodacom.co.za/>

²¹ <http://www.telkom.co.za/>

²² <http://www.eskom.co.za/>

²³ <http://www.transnet.net/>

²⁴ <http://www.propfocs.com/certification/comptia/a-plus/articles/what-is-a+.shtml>

²⁵ <http://certification.comptia.org/network>

²⁶ <http://www.microsoft.com/learning/mcp/default.msp>

²⁷ <http://www.itweb.co.za/sections/techforum>

²⁸ <http://www.khake.com/page17.html>

²⁹ <http://www.gradx.net/article/articleview/426/1/75>

- This [fact sheet from the Human Science Research Council \(HSRC\)](#)³¹ should be read in conjunction with the previous article. It provides a useful picture of changes in opportunities over the last number of years and how fluctuations in the supply and demand of particular skills can influence job opportunities.

³⁰ <http://www.gradx.net/article/articleview/231/1/75>

³¹ <http://www.hsrc.ac.za/Factsheet-9.phtml>

Are you suited to this career?

This quick quiz can help you to identify whether you are suited for this occupation.

| Quiz | Yes | No |
|---|-----|----|
| Are you creative and innovative, and find it easy to come up with new ideas? | | |
| Are you flexible and resourceful? | | |
| Are you able to cope with stress without too much difficulty? | | |
| Are you interested in finding out why people behave as they do? | | |
| Are you good at working with numbers and financial calculations? | | |
| Can you communicate clearly and in an interesting way both orally and in writing? | | |
| Are you persuasive? | | |
| Do you enjoy competing? | | |
| Are you able to work with all kinds of people? | | |
| Do you like to keep up to date with new ideas and trends? | | |

If you have mainly yes answers it may be an indication that this is an occupation to consider.