IT @ Unisa

A guide to preparing for career opportunities

Define tomorrow.

UNISA university of south africa

Contents

The information in this publication is correct as of 10 December 2025. Visit the Unisa Counselling and Career Development downloads page to check for updates.

Please check the Unisa qualifications webpage (http://www.unisa.ac.za/qualifications) regularly for updates related to available qualifications and the admission requirements to study.

How will this brochure help you?

- It will help you to explore the broad range of opportunities related to IT.
- It will help you to identify different job titles related to IT.
- It will help you to understand what you need to plan your career in the IT field.
- It will enable you to identify IT-related qualifications at Unisa.

What problems do you want to solve

“Don’t ask kids what they want to be when they grow up but what problems they want to solve. This changes the conversation from who do I want to work for, to what do I need to learn to be able to do that.”

Jaime Casap, Google Global Education Evangelist

One way to think about your career is by focusing on the **problems you care about**, not only on job titles. This shifts the question from *“What do I want to become?”* to *“What do I want to contribute?”*

Activity

1. Write down some problems or challenges you care about — in your family, community, South Africa, Africa, or the world.
2. Think about how you might contribute to solving them.
3. Ask: *What skills or knowledge would I need to prepare myself for that role?*

Example: You may want to address the challenge of improving access to quality healthcare in under-resourced communities. Think about the different individuals who can contribute to solving this issue: software developers, information systems specialists, data analysts, health practitioners, UX designers, cybersecurity specialists, and public sector managers.

An IT professional might build digital tools that help clinics manage patient records more efficiently. A software developer could create mobile health applications that allow people to

access information or book appointments. A data analyst may identify patterns in health data to improve early detection of diseases. A UX designer ensures that digital health platforms are easy for diverse communities to use. Meanwhile, a cybersecurity specialist protects sensitive patient information, and health workers use these systems to deliver better care.

Together, these roles show that advancing public health requires many people working with different strengths and that your background in IT can enable you to design innovative solutions that improve access, equity, and quality in healthcare across South Africa and the continent.

Understanding IT

Before you start: Why choose IT?

Before considering pursuing this field of study, here are some basic questions you can ask yourself:

- Why are you interested in studying IT?
- Where does your interest come from?
- Where are you hoping to be in five years' time? In ten years' time?
- What opportunities are you hoping to prepare for by completing a qualification in this field?

Why IT?

Many students say they want to study IT because they believe it guarantees high salaries and plenty of job opportunities. While the IT sector is one of the fastest-growing areas of employment and there is indeed a shortage of certain skills, it's important to research and analyse the field in more detail. These statements may not apply equally to all IT roles.

You also need to reflect on where you would fit within this diverse sector. IT is both an industry in itself and an essential part of almost every other industry. The field includes a wide variety of specialisations and job roles. For example, a computer programmer might work at a consulting firm developing software for different companies, or at a financial institution writing programmes for a specific bank.

Which field in IT?

The world of IT is broad and diverse, with career paths that suit different personalities, strengths, and interests. Some fields are highly technical, others focus on people and communication, and many combine both.

The activity below is a starting point to help you think about which areas in IT may align with your personal characteristics and interests. Remember, this is just a first step—use it to guide your further career research by reading more, speaking to professionals, and exploring opportunities.

Activity

- Read the “words to describe you” statements.
- Choose one or two that best describe you.
- See which IT job titles/fields are linked to those descriptions.
- Do further research on those fields.

Words to describe you	**Related IT job titles/fields**
I am a people person	Technical support, Education and training, IT sales and marketing
I like communication and teamwork	IT consulting, IT project management
I like to help others understand	Service delivery, Customer relations
I am happy to share what has been learned	Systems/business analyst, Technical writer
I see the big picture	Database design and administration
I learn by challenging situations or systems	Computer programming
I test constantly	Network design and administration
I analyse pieces of the whole	Systems development
I think about how parts fit together to make the whole work better	Technical advice and consultancy

Words to describe you	Related IT job titles/fields
I like complexity or puzzles	Web development, Human-Computer Interaction, UX design
I can keep things organised and in order	Technical writing, Database administration
I make sure projects stay on track	IT management, Project management
I give careful attention to structure and procedures	Policy planning and research, Quality management, Knowledge management
I can manage systems that need precision	Network design and administration, Computer programming
I ensure information is standardised	IT auditing, Support and administration
I can problem-solve on the spot	Technical support, Multimedia careers
I can deal with lots of change	Technical advice and consultancy
I like to negotiate	IT consulting, Project management
I like to troubleshoot	Database design and administration, Systems development
I like to express myself artistically	Games development, Web design, Multimedia careers
I like to tinker with equipment and see how it works	Computer programming, Hardware support
I am practical and resourceful	Web development, Games development

IT job titles

The IT field includes a wide variety of specialisation areas. Below are some examples of career paths and job titles you may come across. Use this list as a starting point to explore what appeals to you, then follow up with more detailed research about the skills and qualifications required.

Management and planning

- IT project manager
- Information systems manager
- Service delivery manager
- Policy and regulatory planner
- Knowledge management specialist

Systems and software development

- Software engineer/developer
- Systems analyst
- Systems architect or designer
- Database designer/administrator
- Web developer

Technical support and administration

- IT support technician
- Help desk operator
- Network administrator
- Systems integrator
- Hardware/software installer

Data and business analysis

- Business analyst
- Data analyst
- Quality assurance tester
- IT auditor
- Security specialist

Consulting and strategy

- IT consultant
- Enterprise resource planning (ERP) consultant
- Business process redesign (BPR) specialist
- Strategic planning advisor

Education, communication, and user support

- IT trainer or e-learning developer
- Technical writer
- Customer relations manager
- Social media or web content manager
- Community manager

Further reading

- MICT SETA Career Guide

Exploring and researching careers

Making informed career decisions means going beyond what you already know. Career research helps you explore opportunities in IT, understand what employers are looking for, and identify the steps you can take to prepare yourself.

Try this:

Here are some simple activities to help you explore opportunities in IT. Choose 2–3 to start with:

1. **Online search**
   Search “career in IT South Africa” or “entry-level jobs related to IT” and make a list of the qualifications and skills mentioned.
2. **Occupational information websites**
   Visit the South African Department of Higher Education and Training’s *National Career Advice Portal*. Search for specific job titles and read about work activities, skills, and job outlook.

3. **Job search portals**
   Check portals like Indeed, Career Junction or PNet. Type in specific job titles and see which employers are currently hiring and the requirements.
4. **LinkedIn**
   Search for Unisa alumni who studied IT and see where they work now. What career paths do they follow?
5. **AI tools**
   Use ChatGPT or Google Gemini to ask: "What are emerging careers in IT in South Africa?" Compare the results with what you see on job portals.
6. **Talk to others**
   Set up an informal chat with someone working in the field or at an organisation you are interested in to learn more about their career journey and daily work.
7. **Attend a careers fair**
   When Unisa or professional organisations host career fairs, look for employers related to IT. Prepare 2–3 questions to ask them about entry routes into the profession.
8. **Join a professional organisation or network**

- Institute of Information Technology Professionals South Africa (IITPSA)
- Institute of Chartered IT Professionals
- The South African Institute for Computer Scientists and Information Technologists
- South African Information and Communication Technology Association

9. **Volunteering**
   Look for volunteering or vacation work opportunities. Note the skills you develop through these experiences.

For more detailed steps and extra activities, see our Career Research brochure.

Preparing while you study

Many students believe that a degree will lead directly to a specific job. In reality, your career path is shaped by more than your major. It is also about the **skills you build, the experiences you gain, and how you prepare along the way**. While you study, there are many things you can do to get ready for opportunities.

Your degree is one part of your career journey. By building skills, gaining experience, keeping a portfolio, and investing in your confidence, you'll be better prepared for opportunities during and after your studies.

Develop your transferable skills

Your studies give you subject knowledge and valuable skills such as problem-solving, critical thinking, working independently, and adapting to new situations. Reflect on what you're learning and practise explaining these skills in ways that employers will understand.

Activity

- List three skills you've strengthened this year and one example of how you've used each.
- List three skills you intend to strengthen and how you plan on doing so.

Build a career portfolio

A portfolio helps you keep track of your achievements, experiences, and goals. Include your skills, certificates, volunteering, work experience, and career ideas. Over time, this will become a powerful tool for applications and interviews.

Useful resource

- Unisa Career Portfolio

Gain experience (volunteering or part-time work)

Getting experience outside your coursework helps you explore fields of interest, build networks, and develop workplace skills. Volunteering is especially valuable when done responsibly and with respect for the community.

Think about

- Which organisations could benefit from your skills?
- What could you gain in return (skills, networks, insights)?
- How will this experience link to your career goals?

Enhance your employability

Employability means your ability to get, keep, and grow in fulfilling work. Today's careers are flexible: people change jobs and industries often, and success can mean many different things. You can boost your employability by:

- Managing your personal brand (how others see your professionalism).
- Developing job search skills (CVs, cover letters, interviews, networking).
- Exploring flexible career paths and lifelong learning opportunities.

Useful resources

- Unisa Prepare for Job Opportunities
- Counselling and Career Development YouTube channel
- PNet Grad Pack
- GradNext

Grow your self-confidence

Believing in your ability to succeed is just as important as skills and knowledge. Low self-confidence can hold you back from studying effectively, applying for opportunities, or connecting with others.

Ways to strengthen your confidence

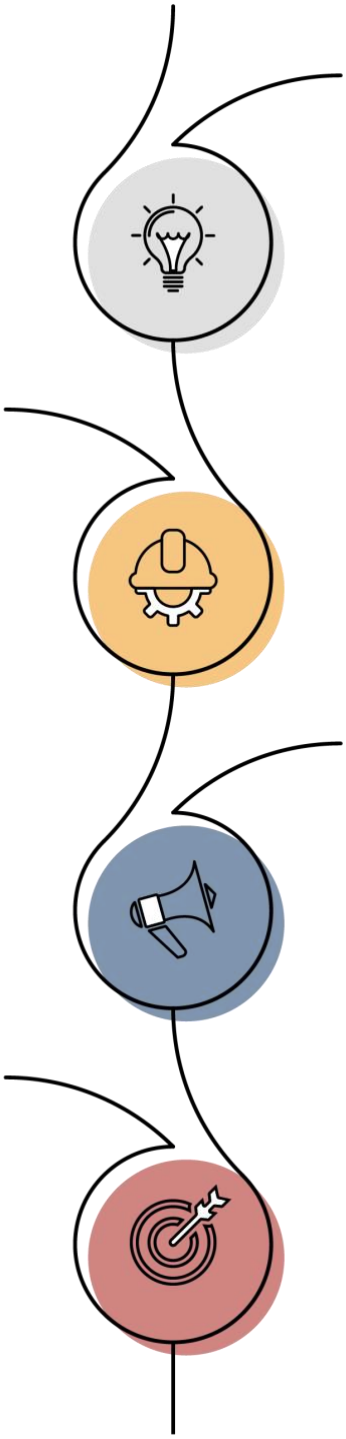
- Focus on your strengths and successes.
- Ask for help when needed: it's a sign of strength, not weakness.
- Practise self-talk that encourages growth instead of fear.

Remember: confidence grows with action. The more you try, the more you'll believe in yourself.

Your roadmap to success

Embarking on a career journey while studying can feel exciting and overwhelming. This roadmap will guide you year by year, helping you to stay intentional, informed, and adaptable.

Careers are rarely straight lines. Think of this roadmap as a flexible guide: you can move between stages depending on your opportunities and goals.



Year 1: Explore and build foundations

- Reflect on your interests, strengths, and career goals.
- Research career paths linked to your qualification.
- Plan your modules and think about postgraduate options.
- Identify key employability skills to develop.
- Create a basic CV and LinkedIn profile.
- Join a student or professional organisation.

Year 2: Grow and gain experience

- Focus on excelling in your studies.
- Apply for internships, part-time jobs, or volunteer work.
- Attend workshops, webinars, or conferences.
- Gain certifications (if relevant).
- Expand your professional network.
- Update your CV and portfolio with new experiences.

Year 3: Refine and specialise

- Revisit your career goals and explore specialisations.
- Connect with alumni and seek mentorship.
- Strengthen your professional presence (LinkedIn, portfolio, personal website).
- Practise with mock interviews and improve communication skills.
- Contribute to professional discussions online or at events.

Final Year: Launch your career

- Start an intentional job search (LinkedIn, job boards, company websites).
- Tailor your CV and cover letters for each application.
- Practise interviews and refine your elevator pitch.
- Attend career fairs and networking events.
- Evaluate and negotiate job offers with guidance from mentors.
- Commit to lifelong learning and professional development.

My career learning plan: Next steps

Your next step is to plan how you will get the information that you still need to make optimal career decisions. Use SMART goals to help you plan your career research.

S – Specific: What exactly do I want to find out?

M – Measurable: How will I know I've done it?

A – Achievable: Can I realistically do this step?

R – Relevant: Does this help me make better career decisions?

T – Time-bound: By when will I do it?

What career questions do I still need answers to?

My career question	What steps will I take?	By when?	Who/what can help me?	Done?	What's next?
E.g. What jobs can I do with a computer science degree?	Search LinkedIn profiles of Unisa computer science graduates	15 Oct	LinkedIn, Alumni page	Yes	Connect with 3 alumni

Career planning is not about having all the answers right now. It is about staying curious, setting small goals, and building momentum.

Study opportunities at Unisa

Undergraduate qualifications in chemistry

College of Science, Engineering and Technology

- Bachelor of Science Applied Mathematics and Computer Science (98801 - AMC)
- Bachelor of Science Chemistry and Computer Science (98801 - CCS)
- Bachelor of Science Chemistry and Information Systems (98801 - CIS)
- Bachelor of Science General (98801 - GEN)
- Bachelor of Science Mathematics and Computer Science (98801 - MCS)
- Bachelor of Science Mathematics and Information Systems (98801 - MIS)
- Bachelor of Science in Computing (98906 - COM)
- Bachelor of Science in Informatics (98907 - INF)

- Diploma in Information Technology (98806 - ITE)
- Advanced Diploma in Information Resource Management (90007)

College of Economic and Management Sciences

- Bachelor of Business Administration (98316 - BBA)
- Bachelor of Commerce (98314 - GEN)
- Bachelor of Commerce in Business Informatics (98300 - BIS)

If you do not meet admission requirements for the undergraduate qualification in the College of Economic and Management Sciences, then you will need to explore the option of applying for a Higher Certificate offered in the College of Economic and Management Sciences. Completing a relevant Higher Certificate programme will enable you to meet the requirements for a diploma or degree.

Visit the Unisa website at http://www.unisa.ac.za/qualifications for more information about the admission requirements for these degrees.

Postgraduate qualifications in IT

Honours degrees

- Bachelor of Commerce Honours in Business Informatics (98450)
- Bachelor of Science Honours in Computing (98908)

Master's and PhD

- Master of Science in Computing (98961)
- Master of Science in Information Technology Management (90157)
- Doctor of Philosophy in Computer Science (98803)
- Doctor of Philosophy in Engineering (90179)
- Doctor of Philosophy in Information Systems (98804)

Read more about the Research Focus Areas here.

Frequently asked questions

I did not complete mathematics and/or physical science at matric level – can I study IT at Unisa?

For the Colleges of Science, Engineering and Technology: No. The admission requirements stipulate that mathematics is one of the requirements. If you did not complete mathematics in matric, you cannot gain access to any of the BSc degrees. More information about the Unisa admission requirements:

College of Science, Engineering and Technology

College of Agriculture and Environmental Sciences

College of Economic and Management Science

I completed maths and science, but my marks were below 50% – what can I do?

You will need to consider applying for admission to a Higher Certificate offered in the College of Science, Engineering and Technology. Visit the Unisa website for more information about the available Higher Certificates and their requirements. Completion of a Higher Certificate does not guarantee you admission to a further qualification since the University also considers the number of available spaces for a specific qualification. Read more about the role of the higher certificate qualifications here.

Counselling and career development services at Unisa

The Unisa Directorate for Counselling and Career Development offers career, academic, and personal counselling services to Unisa students and the broader community. You can talk to a counsellor about:

- **Career decisions.** I am not sure which career path to follow; I don't know which qualification would be best; I want to change my career direction…
- **Career information.** How can I find out more about a career in …
- **Employability.** How do I market myself to employers? How can I look for work? How can I compile an effective CV? How do I go about networking with others? How do I put together my career portfolio? How can I meet potential employers? How can I improve my interview skills?)
- **My studies at Unisa.** How can I get started with my studies? How do I plan my studies? How can I study more effectively? I don't feel motivated to continue with my studies… I feel worried about preparing for/ writing the exams. I failed my exams – what now? I need to improve my reading/ writing/ numeracy skills
- **Personal issues and mental health.** How can I have better relationships with others? How can I cope more effectively with issues that impact my studies?

Contact us

- Send an email to counselling@unisa.ac.za.
- Make an appointment to see a counsellor:
  - In-person at a Unisa Centre
  - Online (on MS Teams)

Further self-help resources for career, academic and personal development

Our website: www.unisa.ac.za/counselling

Our YouTube channel: www.youtube.com/unisacareers