



SAAO
South African
Astronomical Observatory



Welcome to this special edition of **Careers at SAAO**

Focused to grades 10, 11 and 12



ARE YOU STRUGGLING TO FIND YOUR CAREER PATH?

**ARE YOU CONFUSED ABOUT WHICH CAREER WOULD
BETTER SUIT YOUR PERSONALITY?**

**OR ARE YOU JUST OVERWHELMED WITH HAVING TO
MAKE THIS DECISION IN THE FIRST PLACE?**

Firstly it's important to know that YOU ARE NOT ALONE!

*Since we are currently unable to run our much loved SAAO
Job Shadow Programme due to COVID-19 restrictions, we have
come up with this careers brochure to assist you in making that
tough study and subsequent career choice!*

So go ahead...

**FIND OUT ABOUT
THE VARIOUS CAREERS
AT SAAO!**

My name is

Kathryn

and I am a...

MECHANICAL ENGINEER



Why did you choose mechanical engineering as a career?

I knew I wanted to do something that meant I get to work with my hands sometimes – not always behind a desk. I also really liked solving puzzles. Then with a marine engineer dad, it seemed only natural.



What school subjects are important for this career?

Definitely Mathematics and Physical Science. But also just being curious, even at school, about everything in the world around you. Whether it's how a machine works, or why clouds are forming.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

My job is to design hardware or processes to solve engineering problems. For the observatory, sometimes this involves designing tiny mechanisms to move filters around, and sometimes it means making up jigs and parts to safely carry large mirrors around. Sometimes it means figuring out how on earth to connect Part A to Part B in the smallest space possible.

For the design part of it I use a few software tools:

- 3D CAD software is a big one – making sure that all the things you want to build will fit where they're supposed to, and giving that information to a workshop so it can be made.
- Finite element analysis software, to figure out whether your parts will be strong and stiff enough to do what they're supposed to.

And then for the rest of it you get quite comfortable with hand tools: spanners, screwdrivers, drills, taps, etc.

What do you love most about your career?

Every so often, I take a step back, look at the things I've done and the people I get to work with, and go "wow!" At the moment I love that I get to play with telescopes and their fiddly bits. Everything from big motors and control to tiny mechanisms and fragile pieces of glass! I love that there's something different to tackle all the time – it never stays the same.

What is your least favourite part about your career?

Unfortunately we don't always get to just sit in a corner and play with our toys! Most projects also come with the less fun duties of scheduling, budgeting, procuring, etc, etc, etc. But the satisfaction of a job well done is worth it.

Where did you decide to study and why did you choose that institution?

I studied at the University of Cape Town. It had a good Mechanical Engineering programme, and critically, was close to home!

What did you study and what was the duration?

I did a BSc (Mech Eng) and continued to MSc (Mech Eng). In total I was registered for seven years.

What skills or personality traits are necessary for this career?

Resilience, curiosity, and attention to detail. Everything else can be learnt or overcome, but these three are critical from Day 1.

While salaries vary depending on the type of organization/ industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

The minimum entry level salary for this position is around R420 000.00 per annum.

Are there any perks in this career (e.g.: travelling)?

This depends on where you work. Some places require you to travel for consulting, or conferences, or to meet suppliers. Other places don't require much travel, but maybe you get to work in the harbour every day. Each job is different.

My name is *Rudi*
and I am an...
ASTRONOMER



Why did you choose astronomy as a career?

I was interested in astronomy from a very young age and after taking some time off after high school and working, I decided to study astronomy at UCT.

What school subjects are important for this career?

Mathematics, physical science and any computer programming related studies are the most important.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

Most of my time is spent writing computer code to analyse the data and observations taken by the telescope. I mostly use the python programming language, but also some specialised software that was made by other astronomers.

What do you love most about your career?

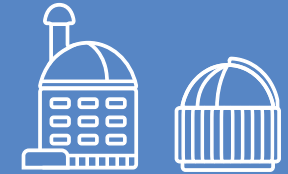
I love the freedom to explore new ideas. We are required to write papers on the research that we do, but we have a lot of freedom to test new ideas and come up with some really neat explanations to outstanding questions in astronomy.

What is your least favourite part about your career?

There are a lot of other things to do. I also teach at UCT and sometimes my days get very long with normal work and extra teaching duties and preparations for that.

Where did you decide to study and why did you choose that institution?

I studied at the University of Cape Town (UCT) as it was the only university (in South Africa) at the time that had undergraduate courses in astronomy.



What was your least favourite part about studying at this institution?

I did not stay on campus, so driving from my home meant that I had to get up before 6am every morning and drive to campus before traffic started.

What did you study and what was the duration?

I did an undergraduate Bachelor of Science degree with Physics and Astrophysics as my majors. I also had Applied Mathematics, Mathematics and Statistics courses up to 2nd year level. I then did the NASSP honours course after which I started with an MSc which was upgraded to a PhD after two years. All in all my studies took eleven years.

What skills or personality traits are necessary for this career?

The ability to work and solve problems on your own is very important. Reading and understanding research papers is also vital, as you will be doing a lot of reading of scientific journals and using that to make better insights into your own research.

While salaries vary depending on the type of organization/ industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

The starting salary is around R400 000.00 per year.

Are there any perks in this career (e.g.: travelling)?

Before COVID there was a lot of opportunity to travel. You are expected to attend conferences and present your work at these conferences, so travel is very much a part of your job.

My name is
Theresa
and I am a...
LIBRARIAN



Why did you choose librarianship as a career?

I allowed myself to be influenced by a well respected Professor in Library and Information Science whilst I was an undergraduate at UCT.

What school subjects are important for this career?

Languages and Mathematics.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

I provide a library and information service to a specific group of people. At the SAAO, that service would be in the astronomy field. In this career you need to be able to search and navigate databases, catalogue information online and make information accessible and available to the users of the library.

What do you love most about your career?

I am able to work in any environment because my skills can be applied in any sector, such as:

- Public Libraries – here the highlight is the interaction with a diverse community
- Special Library – such as the SAAO Library, law, entertainment, engineering...
- Academic libraries at universities and colleges
- School Libraries in public or private schools

What is your least favourite part about your career?

The employment opportunities are not very high. Librarians tend to enjoy their jobs and it can be quite difficult to enter the job market.

Where did you decide to study and why did you choose that institution?

I studied at the University of Cape Town (UCT) because it has the best Library & Information Science Department in the entire country (my opinion of course 😊 but it is a fact).

What was your least favourite part about studying at this institution?

My studies were during the apartheid regime and I felt the discrimination. Fortunately, things are different today.



While salaries vary depending on the type of organization/industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

Minimum entry level salary for this position is around R330 000.00 per year, depending on your qualification and experience.

What did you study and what was the duration?

You can either do a Bachelor of Library & Information Science (BBibI) or, as I did, do any undergraduate degree plus a Post Graduate Diploma in LIS (PGDipLis). I did a three year BA (majoring in English & History) + one year PGDipLis. So you can have any majors for your undergraduate degree because you could end up working in any LIS sector as I have (Academic, Public, School and now Special). I studied for a BBibI (Hon) part-time at UCT and I am about to obtain a Master of Philosophy, MPhil (LIS), also at UCT.

What skills or personality traits are necessary for this career?

You must enjoy reading, working with people and working with information. You must be organised and accurate as well as creative.

Are there any perks in this career (e.g.: travelling)?

You get an overall view of what is happening in the workplace because you deal with everyone. There is a professional body that provides ample opportunity for professional growth.

My name is

Egan

and I am a...

MECHANICAL TECHNICIAN



Why did you choose mechanical technician as a career?

I always loved the idea of making something useful from various pieces of unrelated "junk". As a kid, sometimes this meant ripping apart old/broken appliances and toys I have grown bored of, just so that I could use the parts to create something new!



What school subjects are important for this career?

Mathematics, Physical science and English are prerequisites for this field. But you will find (should you be a natural engineer) that you will appreciate the value of being knowledgeable in many subjects.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

My job is to design hardware for solving engineering challenges. I also physically manufacture, assemble and install hardware systems as required. Some of my past and present projects are: Cable handling systems, a compact camera shutter for a wide-field CCD detector, an instrument selector which directs the scientific beam of a telescope to a user chosen instrument from an array of instruments. All of the above requires me to make use of many engineering tools and skills both theoretical and practical:

Designs: I use a CAD package called Siemens NX. This allows me to test my design digitally before building it.

Construction: Anything at my disposal - Lathes, Milling machines, CNC machines, welding machines and hand tools. One can never predict 100% what you'll need to turn an idea into reality!



What do you love most about your career?

What I love most about my career is that it is so broadly applicable to everyday challenges. Through experience I can look at problems and have confidence that they can be solved. This feels like playing a game and my family loves having a person who can tackle projects head-on around the house. I don't always have 100% success rate but enough to earn me a decent amount of brownie points!

What is your least favourite part about your career?

Unfortunately and fortunately, depending on how you look at it, engineering is very broad and you will either get a job in a very narrow but focused area of the field or a broad but general area. Though, if you learn and "play" outside the constraints of your day-job, the possibilities will be endless!

Where did you decide to study and why did you choose that institution?

I studied at the Cape Peninsula University of Technology (CPUT). They had a good programme to grow theoretical knowledge at the same rate as practical experience. Giving you exposure to the full development cycle from the get-go.

What did you study and what was the duration?

I did a BTech degree in Mechanical Engineering and majored in Strength of Materials and Thermodynamics. Full time this would take four years but because I did part of it part-time, it took me six years.

What skills or personality traits are necessary for this career?

Creativity, innovativeness and curiosity will take you a long way but ultimately you will have to cultivate many skills such as detail-focus, stress-management and communication to give you the ultimate edge.

While salaries vary depending on the type of organization/ industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

Experience vs Salary is almost directly proportional for a techy. The more useful you are, the more valuable you become in the job market. Expect to earn around R280 000.00 per year at entry level. Of course, these values will vary depending on where you work and your level of expertise.

Are there any perks in this career (e.g.: travelling)?

Besides having an awesome repertoire of skills - there are opportunities to apply your skills all over the world!



My name is

Glenda

and I am an...

ACCOUNTANT



Why did you choose accounting as a career?

When I decided that it was time to study for a degree, I looked at where my strengths and experience lay. My marks were good in several subjects but I decided a financial degree would be the most practical for me as I was already working in a financial environment.

What school subjects are important for this career?

Mathematics, Economic & Management Science (EMS) and Business studies.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

I manage the Finance Department. I oversee the processes and processing of financial entries. I also prepare the budget for SAAO with my colleagues. I report on expenditure compared to budget. As a public entity we are governed by the Public Finance Management Act (PFMA). This holds public entities accountable for how they spend their funds.

What do you love most about your career?

I have the satisfaction of knowing that I am contributing to the success of astronomical research in South Africa. The finance department is an integral part of the support operations. I appreciate that I work for a larger organization than just the SAAO and I know that I can count on the support of my colleagues from other facilities for shared experience and knowledge.

What is your least favourite part about your career?

It can be very time demanding and stressful especially at financial year end and audit. Sometimes you are required to extend your working hours to ensure that financial and reporting deadlines are met.

Where did you decide to study and why did you choose that institution?

Funding for tertiary studies restricted my choice to study straight after school. I registered for a Management Accounting degree through UNISA only after I had been working for a few years. The advantage was that by that time, I at least knew what I wanted to study.



What did you study and what was the duration?

I completed a degree in Management Accounting (BCom Mac). UNISA offered a degree in three years, but because I studied part-time I took longer.

What was your least favourite part about studying at this institution?

Part time studying meant working during the day and studying in the evenings. It was tough and took a lot of motivation and commitment to complete my studies.

What skills or personality traits are necessary for this career?

You need to be accurate with numbers, have integrity, be trustworthy and organised. You will need computer skills like Excel. Take advantage of the learning opportunities and be aware of what's happening in the economy of the country.

While salaries vary depending on the type of organization/industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

Entry level salary for this position would be around R350 000.00 per year, depending on your qualification and experience.

Are there any perks in this career (e.g.: travelling)?

As with any job, the more you put in, the more you get out. Be pro-active and confident so that you can make a success of your career. Be open to learning opportunities because they do arise.

My name is

Carel

and I am a...

SOFTWARE ENGINEER



Why did you choose software engineering as a career?

I actually studied physics, but along the way I picked up some programming skills. When it came to looking for a job afterwards, I realised there weren't that many physics jobs outside of academia. Programming was a career path where I could use a lot of the problem solving and computing skills I had developed, and it was full of interesting and challenging work (and paid reasonably well!).

What school subjects are important for this career?

Well, the obvious ones are computing, IT, technology and maths, but really anything that helps your problem-solving (and thinking!) skills would help.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

It's mostly about meeting people's needs. Programming is only part of it. The first step is figuring out what exactly is needed, and then designing a solution that meets that need. Once you have a design, you can start to implement it in code. Finishing coding isn't the end though – you need to test the solution you've developed, verify that it meets the need that started the whole process, and very often you'll be supporting the code afterwards – possibly bug-fixing, and more often extending the code to meet new needs.

What do you love most about your career?

Seeing something through from a concept to a finished product, and the many challenges encountered on the way.

What is your least favourite part about your career?

Spending days trying to find a bug, only to discover it was caused by a typo!

Where did you decide to study and why did you choose that institution?

I studied at UCT – I'm from Cape Town, but it was also considered to be a very good university.

What was your least favourite part about studying at this institution?

Walking between lectures in a winter rainstorm. Why are there so few covered walkways, UCT?

What did you study and what was the duration?

I did a BSc in physics and applied maths, before going on to do an honours, masters and PhD in theoretical physics, so I was at university for over ten years. But it's not necessary to study so much to get a job as a programmer. Some people don't study formally at all – the field is all about what you can do, not how many degrees and diplomas are on your CV. A computer science degree, however, is certainly very helpful, and will teach you things you might not learn through self study. Nevertheless – if you do it right, no study is wasted. Many people get into software development after having studied wholly unrelated things.

What skills or personality traits are necessary for this career?

Tenacity when solving problems, an analytical mind and the desire to keep learning. It helps if you like doing things systematically.



While salaries vary depending on the type of organization/industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

As a junior programmer, one might start out at earning in the region of R420 000.00 per annum but salaries quickly become about what you can do.

Are there any perks in this career (e.g.: travelling)?

Increasingly, travel even to the office is becoming optional. Many software engineers work from home, at least some of the time. However, I've got to live and work in many different parts of the world as a programmer.

My name is
Siphosethu

and I am a...

HUMAN RESOURCE OFFICER



Why did you choose human resources as a career?

I chose HR because it offers an opportunity to impact individuals and the entire organization in meaningful ways. HR influences a number of aspects of the organization. It assists in the development of employees and plays a part in strategic business decisions.

What do you love most about your career?

I love the fluidity of my career, its never static. This is because we deal with different kinds of people and different systems. Policies, technology and legislation is always changing, giving us an opportunity to learn every day.

What school subjects are important for this career?

English and Mathematics

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

On a day-to-day HR functions include employer branding, change management, recruitment and selection, training and development, employee relations, contracts of employment, complaints and grievances, employee benefits, performance appraisals, as well as health and safety.

We use a system called Symplexity for payroll and remunerations and Enterprise Resource Planning (ERP) system for other HR functions.

What is your least favourite part about your career?

Some administrative tasks are my least favourite part of this job, such as filing employee documents.

Where did you decide to study and why did you choose that institution?

I chose Rhodes University because it was close to my home town and it was recommended by family.

What did you study and what was the duration?

I completed a three year Bachelors degree in Social Science, with Industrial Psychology as a major.

What was your least favourite part about studying at this institution?

Water shortages on campus.



What skills or personality traits are necessary for this career?

I would say the following personality traits are needed for a career in HR:

- Strong communication skills
- Emotional intelligence
- Empathy
- Problem solver
- Cooperative

While salaries vary depending on the type of organization/ industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

You can earn around R280 000.00 per year on entry level, depending on your qualification and experience.



Are there any perks in this career (e.g.: travelling)?

Travelling for training could be considered a perk.

My name is

Grant

and I am a...

PROCUREMENT OFFICER



Why did you choose procurement as a career?

It allows me to work with people in different fields, whether they are suppliers and/or internal customers.

What school subjects are important for this career?

There are very few specific subjects related to the field but it would help to have business orientated subjects like economics, accounting and of course mathematics.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

Being a procurement officer involves administrative work. You need to know the market of various commodities, goods and services. You also need to know which suppliers can give you the best service and prices. We use a number of computer software packages, some designed specifically for Supply Chain Management.

What do you love most about your career?

The work is always a challenge, there is never a dull moment and there are very few mundane tasks.

What is your least favourite part about your career?

It is a very high pace job, we serve many internal customers and we need to comply to many rules and regulations. It is very easy to get yourself on the wrong side of auditors. The rules are often not well defined and open to interpretation.

Where did you decide to study and why did you choose that institution?

I studied with UNISA because they offered a good course and I could do the studies part time.

What did you study and what was the duration?

I completed a BCom in Supply Chain and Operations Management. It was a three year degree but part time.



What was your least favourite part about studying at this institution?

Sometimes getting support was not easy but they are a world class long distance university.

What skills or personality traits are necessary for this career?

Integrity, honesty, people skills and a self starter.



While salaries vary depending on the type of organization/ industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

Depending on your qualification and experience, you can earn from around R280 000.00 per year at entry level.

Are there any perks in this career (e.g.: travelling)?

Travelling could be considered a perk, however bare in mind that this would be local travel and not international. Another perk in this field is that you will get to meet interesting people.

My name is **Daniël**
and I am an...
ASTRONOMER



Why did you choose astronomy as a career?

My grandfather had a passion for astronomy and through him I discovered the wonders of the Universe. What sealed the deal for me was when I saw the famous 'Pale Blue Dot' photograph of Earth taken by Voyager 1. In it Earth is suspended like a speck of dust in a ray of sunlight. That photo made me realize how small we really are in the vast expanse of space and I wanted to find out what else was out there and how it works.

What school subjects are important for this career?

Physics and Mathematics are compulsory in this field. Computer literacy is also very important.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

A large portion of our time is spent acquiring and analysing datasets. We apply for time on telescopes across the world, and if successful, we would be required to travel to the telescope and do our observations. With telescopes now becoming remotely accessible all over the world, astronomers can now do their observations without ever leaving their home. A few telescopes, like the Southern African Large Telescope (SALT), are operated using queue scheduling. Astronomers from all over the world will put in proposals, a committee will review them and allocate each proposal a certain amount of time. The targets/objects from these proposals are put into a database and a dedicated team of astronomers (like myself) are responsible for doing the requested observations.

Once we receive the data, we will often write our own programs (in Python, R or other programming languages) to analyse and reduce the data. Once we have reduced the data, we will then prepare a journal article where we describe how the data was obtained and reduced, but most importantly, how the results can be explained/viewed.

What do you love most about your career?

Traveling the world and seeing places I wouldn't have had the chance to see otherwise. The fact that we get paid to study the wonders of the Universe is a privilege. I also love working with a diverse group of people who positively impact every aspect of my life.

What is your least favourite part about your career?

I think all careers have some negative aspects to them, but I have found that my energy is best spent focusing on the positive aspects of my job. A dear friend gave me the following advice: "When confronted with a negative situation, leave the negative energy behind. Only take from the situation the lessons you need to improve yourself."

Where did you decide to study and why did you choose that institution?

I complete my undergraduate studies at North-West University (NWU), the Potchefstroom Campus. It had an excellent Space Science programme, but more importantly, it was close to home.

What did you study and what was the duration?

I studied physics and majored in Physics, Mathematics and Applied Mathematics. In total I spent nine years completing my studies. My BSc degree took three years, one year for my Hons degree whilst my MSc and PhD degrees took two and three years respectively.

What was your least favourite part about studying at this institution?

I don't have anything negative to say here, I enjoyed my time at NWU, I made lifelong friends here and learned a lot about myself.

While salaries vary depending on the type of organization/industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

It really depends on the position you start in and where you decide to work. The typical approach is to do a postdoctoral after your PhD and a good postdoc position can pay around R400 000.00 annually at entry level.

What skills or personality traits are necessary for this career?

The most common trait all astronomers share is curiosity. In this career we get to study all the wonders of the Universe and figure out how the different pieces fit, just like building a puzzle. Personally I also feel that anyone who wants to pursue this career path needs to be resilient. This is a very long and sometimes difficult path to walk. It is important that you surround yourself with like minded peers who will motivate you along this journey.

Are there any perks in this career (e.g.: travelling)?

There are many perks in this career, traveling being at the top of the list for me. Traveling to different places for workshops/conferences is a privilege and has allowed me to visit places I wouldn't have been able to see otherwise. Antarctica and the Americas are the only continents I haven't been to yet. Also, you get to work flexible working hours and the salary is also not bad.

My name is
Lucian
and I am an...
IT SYSTEMS ENGINEER



Why did you choose engineering as a career?

I have always had an interest in how things work and how to solve problems. It's just really cool what you can do with all the tools, which in most cases, are freely available on the Internet.

What school subjects are important for this career?

My subjects were Maths, Physical Science, Biology and Geography. These subjects in itself opened up a world of knowledge and brain teasers about how most things happen around us. The knowledge about nature, science, animals and the human body are captured in these subjects, which basically covers a lot of the things that I have an interest in.

What exactly does your career involve?
What do you do and what sort of tools and/or systems do you use?

My job is to provide a secure and stable environment for IT services and applications for the general use by the users. This involves making sure the Internet link, Email, Telephones, Storage Systems, Application Software, Antivirus, Backups, Networks, Printers, Video Conferencing systems are all working. This enables everyone to do their jobs which makes my job so important in the bigger scheme of things. I am an advocate for open source tools and services. We use things like Hypervisors, Containerization, VoIP, MySQL, Ansible, etc. which are free tools to assist me in creating an environment that is secure and very cost effect. We don't need to pay license fees for any of the software on these platforms.

What do you love most about your career?

To have a look at the things around me and see projects, which I have contributed to, come to life. My job involves making it possible for each employee to accomplish their own tasks because of the systems that I help maintain in providing the IT services for the organization. To know that I assisted in some way to produce science that is recognised world wide gives me a very satisfactory feeling.



What is your least favourite part about your career?

People do not always appreciate the fact that their work days went by without any IT glitches, down times, buffering when streaming, zero dropped calls, missed emails, audio and video issues during their virtual meetings. And when something does go wrong, your phone never stops ringing. 😊

Where did you decide to study and why did you choose that institution?

I studied at the University of Western Cape (UWC) because they had a good Computer Science programme at the time. That was the same time that the Y2K date bug was around, which confirmed my IT interest.

What did you study and what was the duration?

I completed a Bachelor of Science degree with Computer Science and Physics as my majors. I then did a BSc Honours in Computer Science. All in all it took a total of four years.

What was your least favourite part about studying at this institution?

We did not have properly defined career paths attached to our postgrad programme. I followed an academic stream of modules instead of a career driven one. If I had known in advance I probably would've chosen a few different modules to assist my career choice.

What skills or personality traits are necessary for this career?

You must have the right aptitude for doing this job. Troubleshooting and analysis skills are high on the list of skills. The ability to multitask is also essential. A lot of reading and showing an interest in what is happening in your field.

While salaries vary depending on the type of organization/ industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

You could earn around R280 000.00 annually, and obviously more in the private sector.

Are there any perks in this career?

Although most of the gatherings I attend have a virtual component, there are always opportunities to travel to workshops, summits, and conferences. I attended a couple of overseas conferences and workshops, and a few around the country.

My name is
Thembela

and I am a...

PUBLIC RELATIONS OFFICER



Why did you choose public relations as a career?

I have always been curious about the stories behind the organizational brands, which make people choose one brand over others.

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

PR helps organizations to tell a story about their business in a strategic and ethical way.

The strategic approach of storytelling considers reflective strategic communication, reputation management and risk assessment as well as positioning messages towards the correct target audiences.

What school subjects are important for this career?

Languages, mathematics and a portfolio of artwork (perhaps an example of your writing, if you were a member of a writing club at school). In the absence of these, an entrance exam.

What do you love most about your career?

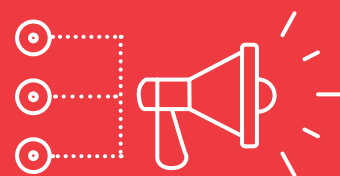
It aligns with my values and who I am, while also considering people as major role players. To be cheesy, it is the only thing I ever want to do with my life.

What is your least favourite part about your career?

The biggest challenge in PR is encroachment. This is quite tiring and deeply disheartening.

Where did you decide to study and why did you choose that institution?

I studied at Cape Technikon because it was offering theory for two years and six months, as well as a six month experiential training programme.



What did you study and what was the duration?

I completed my National Diploma in Public Relations Management. The duration was three years, followed by one year BTech and I am currently doing Masters with a focus on stakeholder relations.

What was your least favourite part about studying at this institution?

Nothing, and I am happy to learn that they are constantly improving the programme to meet industry expectations.

What skills or personality traits are necessary for this career?

Strategic thinking, ability to build relationships, and a curiosity about the world around you.

While salaries vary depending on the type of organization/industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

Salaries are organization dependent. You could earn around R280 000.00 per annum at entry level.

Are there any perks in this career (e.g.: travelling)?

It depends on the organization.



My name is

Keegan

and I am an...

ELECTRONICS TECHNICIAN



Why did you choose electronics technician as a career?

I was always intrigued by technology and actually should have studied computer science as I was more interested in computer systems and programming.



What school subjects are important for this career?

Mathematics and Physical Science

What exactly does your career involve? What do you do and what sort of tools and/or systems do you use?

At the SAAO we are responsible for all of the electronic devices that are used to capture the light from a star and store it as digital data. This includes the control of the building, the telescope as well as the instruments which we mostly build ourselves. We use many different tools/systems as we work on many different things including programming control hardware, maintaining very cold vacuum chambers and controlling extremely sensitive CCD cameras.

The systems we develop ourselves require us to design, build, test, install and maintain them.

What do you love most about your career?

Developing and creating new technologies is very rewarding. I also love the feeling when a project is finally finished and you get to see the finished product in action for the first time.

There is also nothing quite like solving a problem that you have been struggling with for weeks if not months. I know it sounds bad but it is always worth the struggle!

What is your least favourite part about your career?

Drawing up parts lists and buying the required parts for a project can be painful. Also keeping documents up to date for old projects is very difficult and time consuming.

Where did you decide to study and why did you choose that institution?

My circumstances forced me to study at CPUT but there are similar if not better courses at UCT and Stellenbosch.

What did you study and what was the duration?

I studied Electrical Engineering and I majored in Computer Systems. The duration was five years in total to get a bachelor's degree.

What was your least favourite part about studying at this institution?

I found the facilities and tutors were lacking at times but I am not sure if it is any better at other institutions.

What skills or personality traits are necessary for this career?

As in most careers I would say perseverance as you will face many obstacles especially when designing things. Logical thinking, attention to detail and problem solving abilities are also crucial.

While salaries vary depending on the type of organization/industry (e.g.: private or government), as well as on the person's qualification and experience - Can you give me a rough indication of what to expect in this career?

I think the going rate at entry level for an Electronics Technician is around R280 000.00 per year.

Are there any perks in this career (e.g.: travelling)?

In the right company you can do lots of travelling. I think the best perk is that the skills you learn can be applied to many real world problems.



SAAO

South African
Astronomical Observatory

**We hope that our
careers brochure has
assisted you in making
your career choice.**

**All the best with
your studies!**

**Special thanks to all SAAO staff who participated in
providing the content for this careers brochure.**

**Note: All salary ranges mentioned herein are aligned to
the market as at April 2021 and are subject to change.**



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