

Life Sciences @ Unisa

A complete guide to preparing
yourself for career opportunities



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of south africa

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The information in this publication is correct as of 20 August 2019. Visit the Unisa Counselling and Career Development downloads page (<http://bit.ly/30ygrll>) to check for updates.

How will this brochure help you?

- It will provide you with some insight into what studying life sciences involves.
- It will help you gain more information about the skills needed for your career in life sciences.
- It will help you identify possible career fields related to life sciences.
- It will assist you in finding life science-related qualifications offered by Unisa.

What are life sciences?

Life sciences is a collective term used for scientific disciplines which study living things. It includes disciplines such as biology, botany, zoology, microbiology, biochemistry, and physiology.

Biology

Biology is the study of living organisms and their interactions with one another and their environments. This is a very broad definition because the scope of biology is vast. Biologists may study anything from the microscopic or sub microscopic view of a cell to ecosystems and the whole living planet. Listening to the daily news, you will quickly realize how many aspects of biology are discussed every day. For example, recent news topics include Escherichia coli outbreaks in spinach and Salmonella contamination in peanut butter. Other subjects include efforts toward finding a cure for AIDS, Alzheimer's disease, and cancer. On a global scale, many researchers are committed to finding ways to protect the planet, solve environmental issues, and

reduce the effects of climate change. All of these diverse endeavours are related to different facets of the discipline of biology (<http://bit.ly/29cJPfe>).

Botany

Botany is the scientific study of plants. "Plants," to most people, means a wide range of living organisms from the smallest bacteria to the largest living things - the giant sequoia trees. By this definition plants include: algae, fungi, lichens, mosses, ferns, conifers and flowering plants. Today scientists believe bacteria, algae and fungi are in their own distinct kingdoms, but most general botany courses, and most Botany Departments at colleges and universities, still teach about these groups.

Because the field is so broad, there are many kinds of plant biologists and many different opportunities available. Botanists interested in ecology study interactions of plants with other organisms and the environment. Other field botanists search to find new species or do experiments to discover how plants grow under different conditions. Some botanists study the structure of plants. They may work in the field, concentrating on the pattern of the whole plant. Others use microscopes to study the most detailed fine structure of individual cells. Many botanists do experiments to determine how plants convert simple chemical compounds into more complex chemicals. They may even study how genetic information in DNA controls plant development. Botanists study processes that occur on a time scale ranging from fractions of a second in individual cells to those that unfold over eons of evolutionary time.

The results of botanical research increase and improve our supply of medicines, foods, fibres, building materials, and other plant products. Conservationists use botanical knowledge to help manage parks, forests, range lands, and wilderness areas. Public health and environmental protection professionals depend on their understanding of plant science to help solve pollution problems.

Source: <http://bit.ly/297mYIF>

Further reading

- Visit this website to read interviews with professionals in the field of botany:
<http://bit.ly/297Gmge>.

Zoology

Zoology is the scientific study of animals. There are so many organisms to study in this field, that many branches of zoology have been established. The branches includes aquaculture (study of aquatic organisms) to entomology (study of insects), and bacteriology (study of bacteria).

Further reading

- View this presentation (<http://bit.ly/29blpTG>) for an overview of the various branches of zoology.
- Download the [Making Sense of a career in Zoology](#) document to read more about zoology in the South African context.
- Visit the [Zoological Society of South Africa website](#) for more information about zoology in South Africa.

Microbiology

The Microbiology Society defines microbiology as “the study of micro-organisms, or microbes. Microbes matter because they affect every aspect of our lives. By understanding microbes, we can solve many problems from those affecting our health to the environment, climate change and food and agriculture”¹. Specific job titles related to microbiology include: Biomedical scientist, clinical researcher, food technologist, microbiologist, research scientist (life sciences), scientific laboratory technician, technical brewer, forensic scientist, science writer, and water quality scientist. Individuals with training in microbiology are employed in a wide range of industries, including healthcare organisations; environmental organisations; food and drink manufacturers, pharmaceutical research organisations, water and

¹ <https://microbiologysociety.org/why-microbiology-matters/what-is-microbiology-.html>

biotechnology companies; forensic science laboratories; research organisations; and higher education institutions.

Further reading

- American Society for Microbiology Careers site:
<https://www.asm.org/index.php/learn-about-careers>

Biochemistry

The Biochemical Society defines biochemistry as “the branch of science that explores the chemical processes within and related to living organisms. It is a laboratory based science that brings together biology and chemistry. By using chemical knowledge and techniques, biochemists can understand and solve biological problems” (<http://www.biochemistry.org/?TabId=456>).

Specific job titles related to training in biochemistry include analytical chemist, biomedical scientist, healthcare scientist, clinical research associate, forensic scientist, research scientist (life sciences), scientific laboratory technician, and toxicologist. Individuals with training in biochemistry are typically employed in a wide range of industries such as research institutes; universities; government departments; forensic science services; healthcare organisations, pharmaceutical organisations, biotechnology companies, food, water and agricultural companies; and scientific and medical publishers.

Further reading

- Biochemistry: The career guide
<https://biochemistry.org/education/careers/becoming-a-bioscientist/>
- Resources for undergraduate biochemistry students (American Society for Microbiology)
<https://www.asm.org/Browse-By-Audience/Undergraduate-Student>
- South African Society for Biochemistry and Molecular Biology
<http://sasbmb.org.za/>

Physiology

Physiology can be described as “the study of the function of body parts and the body as a whole”². Specific job titles related to physiology include biomedical scientist, clinical research associate, exercise physiologist, healthcare scientist, pharmacologist, and research scientist (medical). Individuals with a physiology background may be employed by research centres and academic institutions; pharmaceutical and biotechnology companies; hospitals, medical centres and healthcare organisations; military services; universities; scientific publishers. Non-scientific employers could include management consultancies and retail companies.

Further reading

- American Physiological Society career site (<https://www.the-aps.org/professional-development/career-professional-development/careers?SSO=Y>)
- The Physiological Society (<https://www.physoc.org/>)

Forensic science and life sciences

Forensic science is the application of science to answer questions related to the law. Biologists as well as chemists and biochemists can be forensic scientists. Forensic scientists provide scientific evidence for use in courts, and their job involves examining trace materials associated with crimes. Interest in forensic science has increased in the last few years, possibly because of popular television shows that feature forensic scientists on the job. Also, the development of molecular techniques and the establishment of DNA databases have expanded the types of work that forensic scientists can do. Their job activities are primarily related to crimes against people such as murder, rape, and assault. Their work involves analysing samples such as hair, blood, and other body fluids and also processing DNA found in many different environments and materials. Forensic scientists also analyse other biological evidence left at crime scenes, such as insect larvae or pollen grains. Students who want to pursue careers in forensic science will most likely be required

² <https://www.cliffsnotes.com/study-guides/anatomy-and-physiology/anatomy-and-chemistry-basics/what-is-anatomy-and-physiology>

to take chemistry and biology courses as well as some intensive math courses (<http://bit.ly/29cJPfe>).

Further reading

- A career in forensic science in South Africa (DNA project) (<http://dnaproject.co.za/blog/a-career-in-forensics-in-south-africa>)
- Forensics careers with the SAPS (http://www.saps.gov.za/careers/downloads/saps_career_booklet_part2.pdf)

Biotechnology

The American Chemical Society defines biotechnology as “the study and use of living organisms or cell processes to make useful products. The first person to produce beer by using the process of fermentation could be described as an amateur biotechnologist. Over time, the term evolved as biotechnology advanced in areas such as drug development, human and animal nutrition, agricultural improvements, and environmental protection. The cloning of insulin, used to treat diabetics, was one of the earliest modern breakthroughs in biotechnology.” (<http://bit.ly/29i5lZK>). Specific job titles related to biotechnology include laboratory assistant, forensic DNA analyst, natural science researcher, clinical research associate, bioinformatics specialist, product developer, and consultant. Individuals with a biotechnology background may be employed by research centres and academic institutions; biotechnology companies, pharmaceutical companies; universities; and scientific publishers. Non-scientific employers could include management consultancies and retail companies.

Further reading

- National Research Foundation Careers in Biotechnology (<http://www.nrf.ac.za/sites/default/files/documents/Careers%20in%20Biotechnology.pdf>)
- Department of Science and Technology Fact Public Understanding of Biotechnology website (<http://www.pub.ac.za/>) and range of fact sheets related to

biopharming, biotech in medical research, biofuels, and more

(<http://www.pub.ac.za/factsheets/>)

Biomedicine

Biomedicine is a branch of medical science that applies biological and other natural-science principles to clinical practice. The branch especially applies to biology and physiology. It includes many biomedical disciplines and areas of specialty that typically contain the "bio-" prefix such as: molecular biology, biochemistry, biotechnology, cell biology, embryology, nanobiotechnology, biological engineering, laboratory medical biology, cytogenetics, genetics, gene therapy, bioinformatics, biostatistics, systems biology, neuroscience, microbiology, virology, immunology, parasitology, physiology, pathology, anatomy, toxicology, and many others that generally concern life sciences as applied to medicine

(<https://en.wikipedia.org/wiki/Biomedicine>). Specific job titles related to biotechnology include biomedical scientist, forensic scientist, pharmacologist, healthcare scientist, clinical biochemist, healthcare scientist, and research scientist (medical). Individuals with a biomedical background may be employed by research centres and academic institutions; biotechnology companies, private pathology laboratories; forensic laboratories; veterinary companies; universities; and scientific publishers.

Further reading

- Biomedical careers in industry (<http://bit.ly/297bWMm>)

Life Sciences and food security

An important concept that can be addressed by the field of Life Sciences is food security. But what exactly is meant by the term food security?

What is food security?

The Food and Agriculture Organisation of the United Nations (FAO) defines food security as “when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life”. Conversely, food insecurity “exists when people do not have adequate physical, social or economic access to food as defined above” (<http://bit.ly/296PHZF>). Food security enjoys priority attention for most governments, and the United Nations included food security in its Global Goals for Sustainable Development (<http://www.globalgoals.org/>).

Food security depends on a number of aspects, including:

- **Food availability:** is there enough food available consistently?
- **Food access:** can we grow our own food, or do we have to buy it? Do we have enough resources to do so?
- **Food utilisation:** are we implementing food safety principles? This includes using food according to basic nutrition principles, and having access to adequate water and sanitation.
- **Stability:** can we ensure stable food prices, and help vulnerable populations to secure incomes?

There are a number of debates related to food security, including the following:

- There is enough food in the world to feed everyone adequately – the problem is distribution.
- Future food needs can – or cannot – be met by current levels of production.
- National food security is paramount; or it may no longer be necessary due to global trade.

- Globalisation may – or may not – lead to the persistence of food insecurity and poverty in rural communities.

Food security is closely linked to poverty as people in low income brackets are especially vulnerable to rising food prices. Rising food prices also force people to make poorer, more affordable food choices, which in turn impacts on nutrition and general health. Policies and projects that increase the real income of poor people therefore contribute to the improvement of food security. Ensuring food security should also incorporate the goals of improved well-being, protection of the environment, and improved public health (FAO, <http://bit.ly/29ezLnM>).

Sustainable environmental and community practices are key factors in ensuring food security. Environmental sustainability can be defined as “the ability to maintain the qualities that are valued in the physical environment”, including human life, the capacity of the environment to sustain living for humans and all living beings, producing renewable resources such as water, timber, fish, and solar energy. In addition, sustainability should maintain quality of life for people, and the functioning of society (<http://bit.ly/2965bKD>).

Sustainable communities are “continually adjusting to meet the social and economic needs of its residents while preserving the environment’s ability to support it” (<http://bit.ly/2947NWm>). Specifically, “a sustainable community uses its resources to meet current needs while ensuring that adequate resources are available for future generations. It seeks a better quality of life for all its residents while maintaining nature’s ability to function over time by minimizing waste, preventing pollution, promoting efficiency and developing local resources to revitalize the local economy. Decision-making in a sustainable community stems from a rich civic life and shared information among community members. A sustainable community resembles a living system in which human, natural and economic elements are interdependent and draw strength from each other”. Sustainable community thinking plays an important role in terms of sustainable economic development, as well as ensuring food security.

Read more about food security

- FAO Trade Reforms and Food Security (<http://bit.ly/297dNlf>)
- United Nations Sustainable Development Goal 2 (<http://www.un.org/sustainabledevelopment/hunger/>)
- South African Development Community (<http://bit.ly/2941Jh4>)
- The World Bank Food Security (<http://www.worldbank.org/en/topic/foodsecurity>)
- Do a search on Google for “food security south Africa” to access a number of reports and other information related to food security in South Africa

Identify opportunities with career research

How do you identify opportunities?

Labour market information can help you when you search for work, plan your career or explore self-employment opportunities. It is essential information to have if you want to make informed career decisions and/or search for a job. It can tell you how industries and occupations are changing; what skills are needed; and the working conditions for specific jobs and industries.

There are many factors that influence the availability of jobs such as the impact of globalisation (local companies having to compete on the global market) and technology (use of computers and the availability of information electronically) on the international and national labour market. This means that you need to do continuous research as circumstances change constantly. Also, you will need to be creative in

finding labour market information – all the information that you need is not stored in one place.

Your career research will connect you to others who will help you to:

- answer questions you have with relation to your career choice;
- expand your understanding of the opportunities related to your career vision;
- identify “hidden” career paths that you did not think of previously; and
- think about how you could plan to pursue specific opportunities.

Prepare

Think about what you still need to find out: what questions do you have? You will use these questions as a starting point to structure your research. Examples of questions include: “What can I do with a major in...”, “How much do laboratory assistants earn?” or “What must I study to be ..?”

Keep track of information

Keep track of your research by making notes about what you learn and what you still need to find out. Use online services or apps such as Evernote (<http://www.evernote.com>) or Diigo (<http://www.diigo.com>) to keep track of your research online.

Evaluate

Evaluate the information that you are finding: Who wrote the information (person/ organisation)? Which country does the information relate to? Also check when the information was last updated. After you have visited a number of websites, you could compare your notes about the information you found – what are the similarities and differences? What else do you need to find out?

Further ways to do career research

1 Online search

Use a search engine such as Google to search for information related to your questions. For example, you need to find out about career opportunities related to one of the life sciences (e.g. biotechnology). You could start with using keywords such as “careers in biotechnology”, or “biotechnology companies” and then to further contextualise your findings, you could search keywords such as “careers in biotechnology Africa” and “careers in biotechnology South Africa”. Scan the brief descriptions of the first ten results and decide which website you would want to explore first. Skim read through the information on the website (start with the headings) to get an understanding of the content of the page and to find information related to your question. Also check whether there are links to other websites that you could further explore. As you are reading, make a summary of the information. You could use the information you find to make lists of job titles related to your field of study, and organisations that employ individuals in these fields.

Remember to bookmark pages that you would want to return to and make notes about what you find and what you would still like to find out about.

Activity

Use Google to find specific job titles related to the field(s) of study you wish to explore. The following are some example search terms you could consider: “job titles life sciences”; and “job titles biochemistry graduates south africa”.

Job title	Website
Example:	
Biochemist	Quintcareers.com

Job title	Website

2 Occupational information websites

The following websites will help you to learn more about specific job titles:

Website	Description
Unisa Counselling & Career Development http://bit.ly/2TO2KoR	This website provides more information about opportunities related to qualifications at Unisa.
National Career Advice Portal http://ncap.careerhelp.org.za/occupations	Search for information about any of the specific job titles you identified during your Google search and in this brochure. The website also provides information about occupations that have been identified as in high demand, and green occupations.
Career Planet http://www.careerplanet.co.za/	Learn more about career areas such as IT, tourism, engineering and more. The website also contains information about learnerships and student finance

Website	Description
O*Net http://www.onetonline.org/	Explore job titles related to different categories such as your interests, skills, values, typical work activities, and more. You could also browse through groups of occupations related to specific industries or economic sectors.
Prospects http://www.prospects.ac.uk/	Explore different job titles related to job sectors, as well as what you could do with your major subject.
Get-SET-Go: A world of opportunities through careers in Science, Engineering and Technology http://www.nrf.ac.za/sites/default/files/documents/Get%20Set%20Go.pdf	Brochure with information about career options in Science, Engineering and Technology

3 Job-search portals

Finding job advertisements that interest you is a worthwhile activity, even if you are not currently applying for jobs. You may not yet be eligible to apply for your dream job, but you can still gain a lot of information that can be applied to your career planning. For example, you are interested in biochemistry, microbiology, and biotechnology but you are not sure which specific job titles are linked to this field; or you want to know what kind of qualifications and skills are needed to be a psychologist at a hospital.

You can use this information to make career goals, and think strategically about how you can develop experiences which will help you meet more of the selection criteria in the future.

Job search sites include

- PNet (<http://www.pnet.co.za>)
- Careerjunction (<http://www.careerjunction.co.za>)
- Careers24 (<http://www.careers24.com/>)
- Indeed (<http://www.indeed.co.za>)
- Government positions (<http://www.gov.za/aboutgovt/vacancies.htm>)

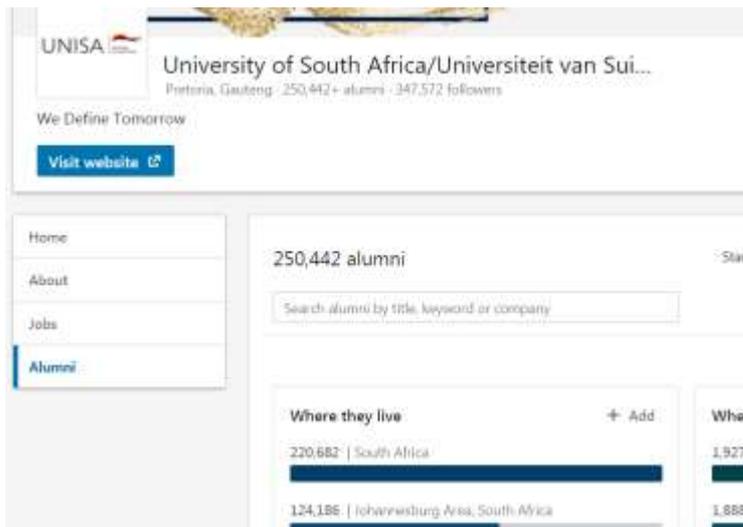
4 LinkedIn

If you have not done so already, start building your network on LinkedIn (<http://www.linkedin.com>) today!

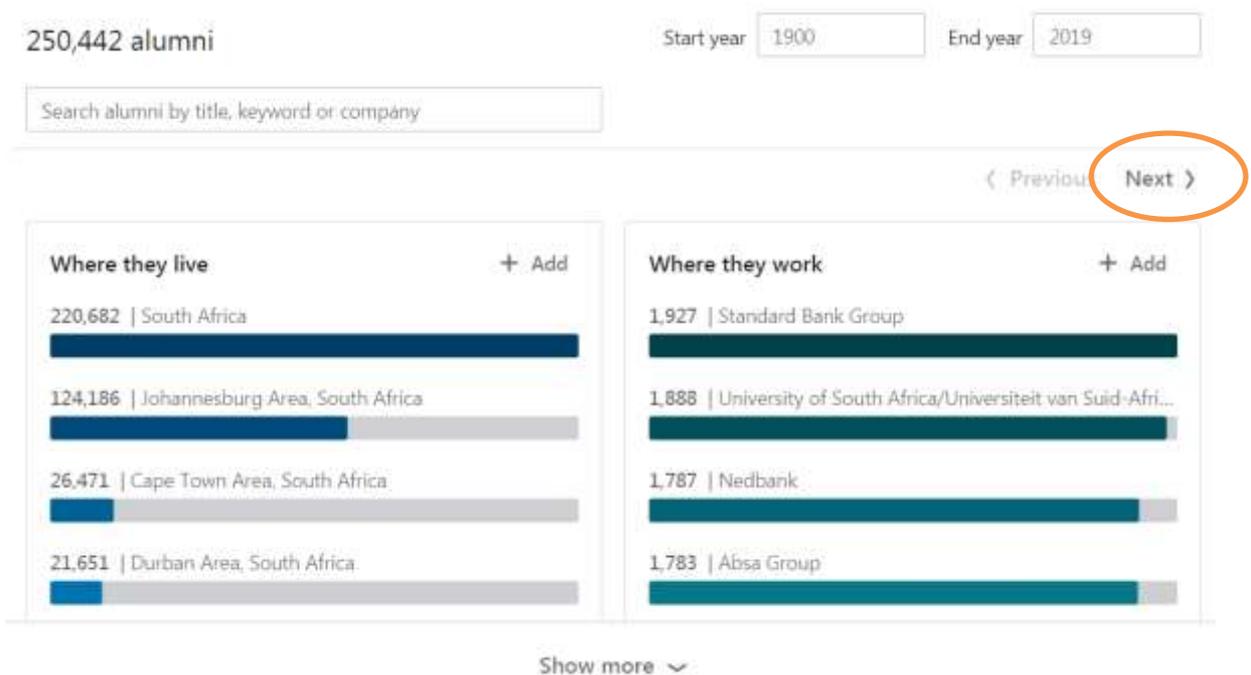
Register for a free account and start connecting with your network online. Join groups relevant to your career field so that you could participate in discussions, ask questions and provide answers about specific topics and search for people, organisations and jobs in your field of interest. Do research about companies and employees to help you identify opportunities. To learn more about using LinkedIn effectively, go to <http://bit.ly/2JSxa3b>.

1. Go to www.linkedin.com and sign in to your LinkedIn account. If you do not have an account yet, then create one.
2. Make sure that you have captured your current or previous studies at Unisa on your LinkedIn profile.
3. Once you are signed in, go to the University of South Africa page at <https://www.linkedin.com/school/12049/>.

4. Click on the “Alumni” link.



5. Click on the “Next >” link to go to the next set of headings (“What they do” and “What they studied”).

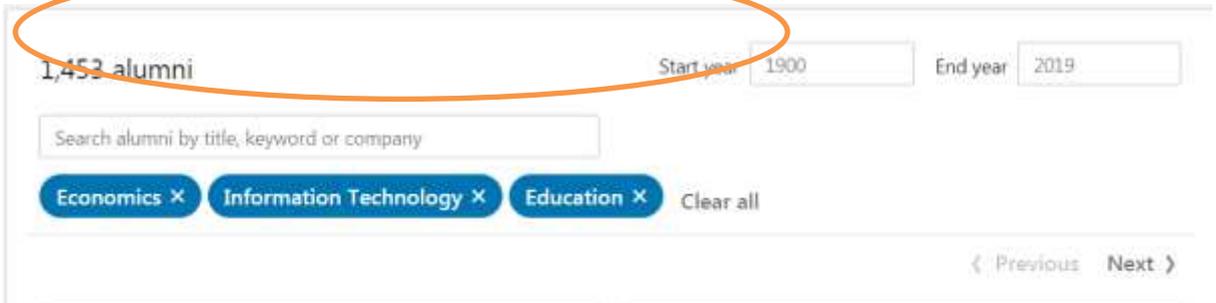


6. Click on “+Add” next to the heading “What they studied”



7. Type the name of your field of study (e.g. “botany” or “zoology”) in the search box.
8. You will notice that the graphs for the different headings adjust. You have now filtered the information to contain information about Unisa graduates who studied economics.
9. You can now see how many graduates from your field of study are on LinkedIn, where they live, where they work, what they do, what they’re skilled at, and how you are connected. For example, in August 2019, most alumni who studied zoology worked at Higher Education Institutions (Unisa, UCT, UP), the South African National Biodiversity Institute, and the Department of Water and Sanitation).
10. You are also able to view the profiles of alumni who meet the criteria you searched for. For example, you can filter your search results to those alumni who indicated that they studied zoology, and work at the Department of Environmental Affairs.

11. As you filter the results, you will get an indication of the filters you have selected (e.g. economics and information technology and education). You can clear these filters by clicking on the x next to the filter, or clicking on “Clear all”.



12. Make some notes about the interesting things you find below.

Your notes about what you find on LinkedIn

5 Talk to others (informational interviewing)

Once you have done some research about specific options, your next step is to talk to individuals in the type of job/ industry that you are interested in. The goal of these conversations is to explore your career options, to expand your network, to build confidence, to access information and to identify your own strengths and areas of development. For example, you read

an article of an interview with the owner of a new biotechnology company and you feel curious about the person’s career. You could contact him or her to ask if they would be willing to share how they went about identifying an area of specialisation. Before you interview someone, do research about what you would want to discuss with them – you could ask

this person to “fill in the gaps” for you. Start with people you already know: friends, family, neighbours, colleagues, lecturers, tutors and fellow students. Use online social networks such as LinkedIn to further identify potential people. For more information on how to go about this and suggestions for questions that you might want to ask, visit <http://bit.ly/2LX7qp3>. Also, watch

this video to learn more: The Dos and Don'ts of Informational Interviews: <http://youtu.be/ixbhtm8l0sl>.

Remember to keep track of the information you have gathered and how you make sense of this. Also, track the questions you still have and how you think you would be able to get answers to these questions.

Activity

Write a list of any people you know who might work in the fields you are interested in. For instance, do any of your parents' friends work in any of the fields you are considering? And write a list of those people who could give you information about any careers you are considering.

You may have identified a lot more people than you thought! Imagine how much information you can gather about the career you are interested in just by talking to these people. Each person will give you fresh insights opinions and valuable information about the careers you are considering, whether they are currently working in that field or are only remotely related to or associated with it.

The South African Agency for Science and Technology Advancement maintains a database of Science Field Experts on their website at <http://www2.saasta.ac.za/scientists/science-field-experts-database/>.

6 Attend a careers fair event

Attending a careers fair event gives you the opportunity to speak to people from different industries. You may be studying a qualification that does not seem to have a direct link to the exhibitors or the presenters, but they have one thing in common: they employ people, who work in organisations, who do business with all kinds of

suppliers and services. Somewhere in this value chain your qualification will find a place to fit – either as a customer or as an employer or employee.

The annual Unisa Careers Fair usually takes place from March to August at various venues. Go to <http://www.unisa.ac.za/counselling> for more information.

7 Experience studying topics related to your field of interest

Explore what the life sciences are by watching and listening to on-line lectures and reading free open textbooks on a variety of topics related to data science. These resources will enhance your understanding of the different life sciences and the various opportunities related to this field.

Search for life science-related courses and open textbooks on these sites:

- Khan Academy (<https://www.khanacademy.org/>)
- Coursera.org (<http://www.coursera.org/>)
- Udemy (<http://www.udemy.com/>)
- Saylor Academy (<http://www.saylor.org/books/>)
- MITOpenCourseware (<http://ocw.mit.edu/index.htm>)
- Open Culture (<http://www.openculture.com/freeonlinecourses>)
- iTunes university (<http://www.apple.com/education/itunes-u/>)
- YouTube education (<http://www.youtube.com/education?b=400>)
- FreeVideoLectures (<http://freevideolectures.com/>)

Unisa qualifications

Undergraduate qualifications

Higher Certificate

- [Higher Certificate in Physical Sciences \(90101\)](#)

Bachelor degrees

- [Bachelor of Science in Life Sciences \(Biochemistry \(or Physiology or Microbiology\) with Business Management Stream\) \(98053 - BBM\)](#)
- [Bachelor of Science in Life Sciences \(Biochemistry and Botany Stream\) \(98053 - BAB\)](#)
- [Bachelor of Science in Life Sciences \(Biochemistry and Microbiology Stream\) \(98053 - BAM\)](#)
- [Bachelor of Science in Life Sciences \(Biochemistry and Physiology Stream\) \(98053 - BAP\)](#)
- [Bachelor of Science in Life Sciences \(Biochemistry and Zoology Stream\) \(98053 - BAZ\)](#)
- [Bachelor of Science in Life Sciences \(Botany and Microbiology Stream\) \(98053 - BNM\)](#)
- [Bachelor of Science in Life Sciences \(Botany and Zoology \(with Geography\) Stream\) \(98053 - BZG\)](#)
- [Bachelor of Science in Life Sciences \(Microbiology and Physiology Stream\) \(98053 - MAP\)](#)
- [Bachelor of Science in Life Sciences \(Microbiology and Zoology Stream\) \(98053 - MAZ\)](#)
- [Bachelor of Science in Life Sciences \(Physiology and Zoology Stream\) \(98053 - PAZ\)](#)
- [Bachelor of Science in Life Sciences Biomedical Sciences \(98053 - BMI\)](#)
- [Bachelor of Science in Life Sciences Biotechnology Stream \(98053 - BIT\)](#)

- [Bachelor of Science in Life Sciences Genetics and Zoology \(or Botany, Microbiology, Physiology or Biochemistry\) \(98053 - GZB\)](#)
- [Bachelor of Science in Life Sciences Psychology and Physiology Stream \(with Genetics\) \(98053 - PPG\)](#)
- Life Science subjects can also be taken as a major for the [Bachelor of Science General \(98801 - GEN\)](#)

Honours degrees

- [Bachelor of Science Honours in Life Sciences \(Biochemistry stream\) \(90084 - BIO\)](#)
- [Bachelor of Science Honours in Life Sciences \(Botany stream\) \(90084 - BOT\)](#)
- [Bachelor of Science Honours in Life Sciences \(Genetics stream\) \(90084 - GNE\)](#)
- [Bachelor of Science Honours in Life Sciences \(Microbiology stream\) \(90084 - MIB\)](#)
- [Bachelor of Science Honours in Life Sciences \(Physiology stream\) \(90084 - PHY\)](#)
- [Bachelor of Science Honours in Life Sciences \(Zoology stream\) \(90084 - EZO\)](#)

Masters and Doctorate studies

- Master of Science in Life Sciences (Full Dissertation) (98016)
- Doctor of Philosophy in Life Sciences (90012)

Learn more about [research focus areas](#) and the departmental selection process in the Unisa Department of Life Sciences.

Short Learning Programmes (SLPs): College of Agriculture and Environmental Sciences

Unisa offers a number of SLPs that people could look at completing. It is important to remember that a SLP is not a formal qualification and will not allow you to qualify for a formal qualification. Visit http://brochure.unisa.ac.za/slp/showlist.aspx?d=d_744 for more information about the short learning programmes are offered by the Centre for Sustainable Agriculture and Environmental Sciences.

Counselling and career development services at Unisa

The Unisa Directorate: 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.** How can I have better relationships with others? How can I cope more effectively with issues that impact on my studies?

Visit our website at <http://www.unisa.ac.za/counselling> to access many self-help resources, or talk to a counsellor by e-mail to counselling@unisa.ac.za.