

BSc Chemistry

This programme provides students with training in the different fields of chemistry such as inorganic, organic, analytic, physical, and polymer chemistry in one of the most dynamic and best equipped chemistry departments in the country. Take note of the three focal areas within which you have options in choosing your majors.

Focal areas	Major/s
Chemistry & Polymer Science	Chemistry and Applied Chemistry, Applied Mathematics, Computer Science, Mathematics, Microbiology or Physics
Chemical Biology	Chemistry & Biochemistry
Applied & Sustainable Chemistry	Chemistry & Applied Chemistry

Consult the latest Faculty of Science Yearbook (Part 5) for information on subjects and modules.

Do I qualify?

Minimum admission requirements to apply

- Average (excluding Life Orientation): **65%**
- English OR Afrikaans
(Home Language or First Additional Language): **50%**
- Maths: **70%**
- Physical Sciences: **50%** (both Chemistry & Physics)

TAKE NOTE: The selection criteria used for admission are higher than this.



Focal areas explained

Chemistry and Polymer Science

Students are trained to become professional chemists and analytical chemists who have the chemistry-based technical background for a career in any industrial or other sector in which chemistry plays a role. You will gain a thorough knowledge of polymers as the basis of various materials, and of sophisticated synthetic and analytic techniques for polymers.

Applied and Sustainable Chemistry

Students will learn innovative solutions to environmental challenges, focusing on minimizing pollution, reducing waste, and developing safer, renewable materials. Students will learn to think critically about chemical life cycles and will be trained to become responsible, forward-thinking scientists.

Chemical Biology

Students are trained to become scientists for a career in those sectors of the chemical industry involved in the more organic and biochemical aspects of chemistry (such as food production and medicinal chemistry). This focal area will also prepare you for postgraduate studies and a research career in Organic Chemistry and/or Biochemistry.

NB: You can also consider another programme in chemistry: the BSc (focal area Applied Medicinal Chemistry), majoring in Chemistry.



Why study BSc Chemistry?

- I want to help solve global challenges like access to clean water, reduced dependency on fossil fuels, solutions to antimicrobial resistance, improved food security, environmental pollution, human health issues such as cancer, heart diseases, malaria and TB, sustainable lifestyle interventions etc
- I want to develop research, problem-solving and analytical skills.
- I enjoy chemistry, mathematics and physics.
- I love the prospect of new discoveries and finding out how things work.
- I would like to focus on medicinal chemistry and drug development.

Why study Chemistry at Stellenbosch University?

- The Department of Chemistry and Polymer Science is one of the top departments in this field in Africa – we have a strong research ethos and the largest research effort in polymer science in Africa.
- You can develop your skills and explore many options during the three years of study so that you do not limit yourself when finally deciding on a career path of choice.

What can I do with a BSc Chemistry degree?

Analytical chemist

Disaster management officer

Environmental consultant

Forensic chemist

Geochemist Product developer

Laboratory director

Nanotechnologist

Paint chemist

Physical sciences teacher

Pharmaceutical scientist

Product engineer

Quality assurance manager

Research scientist

Senior researcher

Toxicologist

"It is a challenging, multidisciplinary course that focuses on the student's level of understanding rather than just absorbing and memorising information."

– undergraduate BSc student

Contact details

Department of Chemistry and Polymer Science

Tel: (021) 808 3331

E-mail: cheminfo@sun.ac.za

Website: <https://www0.sun.ac.za/chemistry/>

Contact our recruitment officer

science@sun.ac.za

Deadline: Apply with your grade 11 marks by 31 July

General admission and selection criteria

<https://www.sun.ac.za/english/maties>

Hierdie program bied aan studente opleiding in die verskillende velde van chemie, soos anorganiese, organiese, analitiese, fisiese, en polimeerchemie in een van die mees dinamiese en goed toegeruste chemie-departemente in Suid-Afrika. Neem kennis van die drie fokusareas waarbinne jy opsies het om jou hoofvakke te kies:

Fokusareas	Hoofvakke
Chemie en Polimeerwetenskap	Chemie en Toegepaste Chemie, Toegepaste Wiskunde, Wiskunde, Rekenaarwetenskap, Mikrobiologie of Fisika
Chemiese Biologie	Chemie en Biochemie
Toegepaste & Volhoubare Chemie	Chemie en Toegepaste Chemie

Raadpleeg die nuutste Jaarboek van die Fakulteit Natuurwetenskappe (Deel 5) vir inligting oor vakke en modules.

- NSS-gemiddeld van **65%** (Lewensoriëntering uitgesluit)
- Engels OF Afrikaans (Huistaal of Eerste Addisionele Taal) **50%**
- Wiskunde **70%**
- Fisiese Wetenskappe **50%** (beide Chemie én Fisika)

NEEM KENNIS: Die keuringskriteria wat vir toelating gebruik word, is hoër.

Chemie en Polymeerwetenschap

Studente word opgelei om professionele chemici en analitiese chemici te word wat die chemie-gebaseerde tegniese agtergrond het vir 'n loopbaan in enige industriële of ander sektor waarin chemie 'n rol speel. Jy sal 'n deeglike kennis opdoen van polimere as die basis van verskeie materiale, en van gesofistikeerde sintetiese en analitiese tegnieke vir polimere.

Studente sal leer om met innoverende oplossings vir omgewingsuitdagings vorendag te kom, met die fokus op die beperking van besoedeling, die vermindering van afval, en die ontwikkeling van veiliger, hernubare materiale. Hulle sal ook leer om krities oor die lewensiklus van chemikalieë te dink en sal opgelei word om verantwoordelike, vooruitdenkende wetenskaplikes te word.

Studente word opgelei om 'n loopbaan as wetenskaplike te volg in daardie sektore van die chemiese industrie wat te make het met die meer organiese en biochemiese aspekte van chemie (soos voedselproduksie en medisinale chemie). Hierdie fokus-area sal jou ook voorberei vir nagraadse studies en 'n navorsingsloopbaan in Organiese Chemie en/of Biochemie.

NB: Jy kan ook 'n ander program in chemie oorweeg: die BSc (fokusarea Toegepaste Medisinale Chemie), met Chemie as hoofvak.



- Ek wil help om globale uitdagings die hoof te bied, soos toegang tot skoon water, verminderde afhanklikheid van fossielbrandstof, oplossings vir antimikrobiële weerstandigheid, verbeterde voedselsekureit, omgewingsbesoedeling, gesondheidsverwante kwessies soos kanker, hartsiektes, malaria, tuberkulose, en volhoubare leefstylintervensies.
- Ek wil navorsings-, probleemoplossings- en analitiese vaardighede ontwikkel.
- Ek geniet chemie, wiskunde, en fisika.
- Ek hou van die vooruitsig van nuwe ontdekkings en om uit te vind hoe dinge werk.
- Ek wil graag fokus op medisinale chemie en die ontwikkeling van nuwe geneesmiddels.

- Die Departement Chemie en Polimeerwetenskap is een van die top- departemente in hierdie veld in Afrika – ons het 'n sterk navorsingsetos en die grootste navorsingsgroep in polimeerwetenskap in Afrika.
- Gedurende die drie jaar van studie kan jy jou vaardighede ontwikkel en verskeie opsies ondersoek sodat jy nie jouself beperk wanneer jy uiteindelik finaal 'n loopbaan kies nie.

Analitiese chemikus	Laboratoriumdirekteur	Produkingenieur
Farmaseutiese wetenskaplike	Materiaalwetenskaplike	Rampbestuurbeampte
Forensiese chemikus	Nanotegnoloog	Toksikoloog
Gehalteversekeringbestuurder	Navorsingswetenskaplike	Verfchemikus
Geochemikus	Omgewingskonsultant	

- Voorgaardse BSc-student

Department of Chemistry and Polymer Science
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science@sun.ac.za

Sperdatum: Doen aansoek met jou graad 11-punte voor 31 Julie

Algemene toelatings- en keuringscriteria

<https://www.sun.ac.za/afrikaans/maties>