

**Environmentally friendly recovery and purification of sulphated polysaccharides from seaweed**

**Chemical Engineering (read more [here](#) about the programme and admission requirements)**

**Hosts:** Prof Neill Goosen; Mr Zwonaka Mapholi

Prof Goosen and Mr Mapholi are seeking a motivated candidate to work on environmentally methods to recover and purify high-value sulphated polysaccharides from seaweed. Sulphated polysaccharides are high-value compounds found in seaweeds and are candidates for pharmaceutical use. To be eligible for use in the pharmaceutical sector, the compounds need to be obtained at high purity and all contaminants co-extracted from the seaweed need to be removed. Obtaining pure forms of sulphated polysaccharides remains a challenge at industrial level, and the project will investigate different pathways to obtaining high-purity sulphated polysaccharides extracted from South African seaweed.

The position is for full-time, on campus study at Stellenbosch University and forms part of ongoing work at the Department of Chemical Engineering on the development of sustainable biorefineries based on seaweed. Stellenbosch University is one of the leading research institutions on the African continent and is known for its academic excellence and rich on-campus student experience. If you are independent, curiosity driven, innovative, and willing to work in a multidisciplinary environment, then this exciting position could be yours!

**Commencement:** The successful candidate must assume postgraduate work in January 2025.

**Bursary:** Research and bursary funding has been applied for from a funder, and if successful a bursary of R135,000 will be provided. Candidates that already have their own funding for living expenses and tuition will have an advantage.

### **Requirements**

- A bachelor's degree (BEng/BScEng or similar) in Chemical Engineering from an accredited tertiary institution. *Candidates with BTech, National Diploma, or advanced diploma qualifications will not be considered.*
- Applicants must have good academic record (preferably with a course aggregate of >65%).
- Previous experience in bio-separations will be a definite advantage but is not required.
- Preference will be given to **South African citizens and permanent residents** who display academic excellence.

### **Application**

Interested candidates must provide the following documentation: a cover letter, CV, degree certificate(s), complete academic transcript(s), and contact details of at least three academic references. Applications can be sent to [njgoosen@sun.ac.za](mailto:njgoosen@sun.ac.za) or [zmapholi@sun.ac.za](mailto:zmapholi@sun.ac.za) before **15 November 2024**. Candidates may consider their application unsuccessful if they do not receive any feedback within four weeks of applying.

*Stellenbosch University reserves the right not to fill the position.*