

BIOTECHNOLOGY INNOVATION CENTRE

Professor: Biotechnology & Director. South African Research Chair in Biotechnology Innovation and Engagement

JL Limson, PhD, PGDHE(Rhodes)

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Senior Lecturer: Biotechnology

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MRC Career Development Lecturer:

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NS Gardiner, PhD(Rhodes)

J Jordaan, PhD(Rhodes)

B Zuma, PhD(Rhodes)

Emeritus Professor

PD Rose, BSc(Hons)(UCT), PhD(Rhodes)

Professional Associate

P Allison, BSc(Hons)(KZN)

Biotechnology is offered at the Honours, Masters and PhD level.

General Background

The Rhodes University Biotechnology Innovation Centre (RUBIC) is the academic home of the discipline of Biotechnology, providing a trans-disciplinary research and learning environment in the areas of Biomedical Biotechnology and in Environmental/Industrial Biotechnology. In addition to teaching and research, the Biotechnology Innovation Centre is engaged in technology transfer of Biotechnology research and the public engagement and communication of the field. See the Web Page <http://www.ru.ac.za/biotech> for further details.

Biotechnology Honours

This course is offered as a professional qualification for students interested in careers in the biotechnology sector. Biotechnology is a multi-disciplinary field of study at the intersection of the biological, chemical and physical sciences. As a prerequisite, candidates normally have either Microbiology or Biochemistry (or equivalent subjects) as one of their major BSc subjects. The course consists of lectures, seminars and essays covering a series of topics in Biotechnology such as alternative energy, wastewater treatment, biosensor technology, stem cells, protein

engineering, industrial bioprocess design and strategy and advanced topics in environmental biotechnology and management. The course also includes enrichment modules and seminars in bio-entrepreneurship, intellectual property management, biotechnology communication and current trend analysis. The coursework is followed by a research project of original investigation conducted in one of the research laboratories of the supervisor. All seminars, essays, practical reports and examinations will contribute to the final mark.

Biotechnology Masters and PhD

Degrees in Biotechnology at the Masters and Doctoral level are offered by research to suitably qualified graduates. MSc and PhD students conduct research under the supervision of one of the staff or in collaboration with affiliates in other departments at Rhodes as well as affiliates in the public and private research and industrial sector. Academic programmes including research seminars, conference presentations and advisory committees (constituted for masters and doctoral candidates) further support research activities. All postgraduates are offered voluntary short courses to enrich their learning and enhance their preparedness for the job market in areas including business plan development and biotechnology communication and public engagement. Finally, the Biotechnology Innovation Centre provides an Innovation space for graduates interested in the future technology transfer and commercialization of their postgraduate research.

MSc in Environmental Biotechnology

See Calendar entry for the Institute of Environmental Biotechnology, Rhodes University.

Higher Diploma in Environmental Biotechnology

A Higher Diploma in Environmental Biotechnology was offered in recent years, but will not be offered in 2016.

Requirements for the MSc and PhD degrees are given in the General Rules.