



BScHons Bioinformatics

Programme code

02240702

Bioinformatics is the application of computer science, mathematics, statistics and informatics techniques to biological data. The biological data may be in the form of protein or nucleic acid sequences, whole genomes, macromolecular structures, expression levels, transcription levels or metabolic pathway models. Bioinformatics has applications at various levels, from pure application to biological problems, to software and algorithm design. Bioinformatics may be applied to the fields of agriculture, veterinary science, medicine, environmental sciences and to information technology-related fields. The Bioinformatics Unit at the University of Pretoria forms part of a national bioinformatics network at the South African National Biodiversity Institute (SANBI), and represents the Gauteng hub.

Bioinformatics is based on biological, mathematical and computer sciences. Postgraduate studies in this programme include honours, master's and doctoral degrees. The oneyear honours degree is open to students with degrees in biological sciences, computer science, mathematical statistics or other related fields. Additional biology, computer science or mathematics subjects may be prescribed. At master's and doctoral levels, students are required to complete research projects in bioinformatics.

For more information, please consult the Faculty webpage.

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Faculty notes

The Faculty of Natural and Agricultural Sciences is home to more than 6 500 undergraduate and postgraduate students. The Faculty presents degrees in fields ranging from the proverbial A to Z - from actuaries to zoologists, and consists of 13 departments.

All degree programmes are designed to develop problem-solving individuals who can easily adapt to changing circumstances and take the lead in their chosen fields of specialisation. The qualifications awarded are of world-class and provide access to a multitude of career opportunities for dynamic and creative people. According to the latest Times Higher Education World University Rankings the University has achieved new world rankings in Physical Sciences, a discipline which features



strongly in NAS and also maintains excellent positions on the ISI Web of Science (WOS) field rankings in Plant and Animal Sciences, Agricultural Sciences, and Environment and Ecology Sciences.

In the Faculty of Natural and Agricultural Sciences, we strive to continuously improve our high impact research and significantly address the national shortage of PhD graduates that respond to global and local challenges.

Minimum duration

1 years, full-time

Admission requirements

Relevant BSc degree A weighted average of at least 60% at final-year level

Note: Additional modules may be required in order to reach the desired level of competency