

University of Pretoria Yearbook 2020

BScHons Biochemistry (02240701)

Minimum duration of study 1 year

Total credits 135

NQF level 08

Programme information

Renewal of registration

- Subject to exceptions approved by the Dean, on the recommendation of the relevant head of department, a student may not sit for an examination for the honours degree more than twice in the same module.
- A student for an honours degree must complete his or her study, in the case of full-time students, within two years and, in the case of after-hours students, within three years of first registering for the degree. Under special circumstances, the Dean, on the recommendation of the relevant head of department, may give approval for a limited extension of this period.

In calculating marks, General Regulation G.12.2 applies.

Apart from the prescribed coursework, a research project is an integral part of the study.

Admission requirements

- An appropriate BSc degree
- A final grade point average of at least 60% in Biochemistry at third-year level
- Applicants may be subjected to an entrance evaluation examination.

Other programme-specific information

- A pass mark is required for all the components of the honours programme and the average mark is calculated proportionally to the credits.
- Additional modules can be prescribed to remedy shortcomings in a candidate's undergraduate training.

Pass with distinction

The BScHons degree is awarded with distinction to a candidate who obtains a weighted average of at least 75% in all the prescribed modules and a minimum of 65% in any one module.

Curriculum: Final year

Minimum credits: 135

Core modules

Trends in biochemical research 771 (BCM 771)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Year

Module content

Study and discussion of topical research results from recent scientific publications.

Research project and report 773 (BCM 773)

Module credits	60.00
Prerequisites	No prerequisites.
Contact time	1 other contact session per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Year

Research methods 774 (BCM 774)

Module credits	30.00
Prerequisites	Admission into BSc Hons Biochemistry, Biotechnology, Genetics, Microbiology, Bioinformatics or Human Physiology
Contact time	2 practicals per week, 2 web-based periods per week, 4 lectures per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Year

Module content

Students are guided through the methodology of research planning and data handling, as well as science communication skills. They are offered hands-on experience in a range of advanced techniques employed in biochemistry, molecular technologies and biochemical analysis. Scientific writing and presentation skills required for research in biochemistry, are also addressed. Ethical and philosophical issues in the broader field of the Cellular and Molecular Sciences are also addressed. Several of these aspects will be presented collaboratively by the Department of Genetics and the Department of Microbiology and Plant Pathology.

Advanced biochemistry 775 (BCM 775)

Module credits	15.00
Prerequisites	Admission into BSc Hons Biochemistry, Genetics, Microbiology, Bioinformatics or Human Physiology
Contact time	4 lectures per week, 4 web-based periods per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Year

Module content

The latest trends towards a biological systems approach of metabolism, functional genomics and control. This includes integration of metabolic pathways, mechanisms of regulation and metabolic control analysis.

Molecular and cellular biology 721 (MLB 721)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	2 discussion classes per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Semester 2

Module content

Principles and applications of recombinant DNA, and other novel molecular and genomics technologies, to address questions in the biological sciences and/or biotechnology. Strong emphasis is placed on the principles of research planning, including identifying suitable research objectives, formulating a research strategy and understanding the relevance and feasibility of research. The module is assessed by means of a research project proposal, conceived and formulated by each student. The proposal must focus on the use of molecular technologies in addressing realistic questions in biology and/or biotechnology. There is also an oral defense of the project proposal.

This module is jointly presented in the Departments of Biochemistry, Genetics and Microbiology.

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.