University of Pretoria Yearbook 2019

BScHons Genetics (02240705)

Minimum duration of study	1 year
Total credits	135

Programme information

The honours study programmes serve as the first level of postgraduate training and the aim is therefore to introduce students to the methods of research – from the reading of research papers, through to the conceptualisation, planning, execution and communication of a research project.

Renewal of registration

i. Subject to exceptions approved by the Dean, on the recommendation of the relevant head of department, and in the case of distance education where the Dean formulates the stipulations that will apply, a student may not sit for an examination for the honours degree more than twice in the same module.
ii. 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 and, in the case of distance education students, within the period stipulated by the Dean. 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 with a final grade point average (GPA) of at least 60% and including at least four genetics modules at final-year level or permission by the Head of Department. Preference will be given to applicants with the highest final GPAs for their preceding degree and qualifying applicants may be subjected to an entrance evaluation examination. Admission is furthermore contingent on the availability of supervisors and/or research projects within the Department.

Examinations and pass requirements

A pass mark is required for all the components of the honours study programme and the final honours mark is calculated proportionally to the credits of the respective prescribed modules.

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

Minimum credits: 135

Other programme-specific information:

- Additional modules may be prescribed by the head of the department where deemed necessary. Honours students may also be required to complete a biometry or equivalent module, if they have not already done so during their undergraduate training.
- Suitably qualified candidates may also apply for the interdepartmental BScHons in Biotechnology (Code 02240393) with a registration in the Department of Genetics. For more information, please refer to the programme information for the BScHons in Biotechnology.

Core modules

Seminar course 702 (GTK 702)

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

Module content

Students are guided to collect relevant literature from disparate papers and to condense and collate this into a written seminar. Seminars are presented, along with formal article talks. Themes and articles covered in the course form part of the written examination upon completion of the module.

Research project 703 (GTK 703)

Module credits	60.00
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Year

Module content

A mini-dissertation with well-defined limits is undertaken under the guidance of a supervisor. The students are allowed to choose from a number of projects from the different research programmes in the department. The module also has a strong theoretical component since emphasis is placed on writing and presenting a comprehensive literature review and project proposal. Additional technical and analytical training is provided. The project is concluded with a final report, presented in the format of a short manuscript, as well as a poster and an oral presentation.

Trends in genetics 704 (GTK 704)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	4 discussion classes per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Year

Module content

Discussions and essays focusing on a selection of advanced topics, as well as recent advances in the field of genetics, with an emphasis on contextualising these developments within the broader framework of the Biosciences and its role in modern society. Ethical and philosophical issues in genetics are debated.

Research methods 705 (GTK 705)

Module credits	30.00
Prerequisites	No prerequisites.
Contact time	10 discussion classes per week, 5 web-based periods per week, 5 practicals per week, 5 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. They are offered hands-on experience in a range of advanced techniques employed in molecular research and analysis. Scientific writing and presentation skills, required for research in genetics, are also addressed.

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.