

APPLICATION PROCESS:

▲ Resident students:

Please apply for postgraduate study at NAS Student Administration in the foyer of the Agricultural Sciences building or online at https://www.up.ac.za/psp/upapply/employee/hrms/c/up_oap_menu.up_oap_login.gbl. Please ensure that you provide the correct contact details and address on the application since we will contact you during December/January using these details. It is essential that you include an up-to-date **study record**. Note that applications *will not* be processed based on 1st and 2nd year marks only. Your application must furthermore be accompanied by a **handwritten, legible essay** on “*The role and promise of genetics in the future of health and disease in...*”. Please take note of the attached closing dates for applications.

▲ Students from institutions other than UP:

Interested persons may apply by completing the online **UP application form** at https://www.up.ac.za/psp/upapply/employee/hrms/c/up_oap_menu.up_oap_login.gbl. Please ensure that you provide the correct contact details and address. It is essential that an up-to-date **study record** is attached as supporting documentation (see “step 10” of the online UP application process). If you do not have your final marks as yet, please include your official progress marks and ensure that we receive your final marks as soon as possible! Note that applications *will not* be processed based on 1st and 2nd year marks only. Your application must furthermore be accompanied by a **handwritten, legible essay** on “*The role and promise of genetics in the future of health and disease in...*”. Please attach this along with the other supporting documentation. Please take note of the attached closing dates for applications.

ADMISSION PROCESS:

There are only a limited number of Honours positions available each year. The admissions panel will consist of all the lecturing personnel in the Department and attention will be given to the applicant’s undergraduate achievement, the essay submitted with the application and English language proficiency. There will be two cycles of selection - the first will take place early in August and the second in early December. Successful and short listed candidates will be notified telephonically by the beginning of either August or December. Late applications will be considered if and when positions become available, and after attention has been given to any short listed candidates. The admissions panel reserves the right to require an applicant to write an admission examination to verify basic genetics background and/or level of understanding.

BURSARIES:

UP postgraduate fee waiver bursaries are potentially available to students with an undergraduate final year weighted average of **at least 60%**. (PLEASE NOTE: The actual cut off percentage will vary depending on the availability of funds and bursaries are **not** guaranteed). There are a number of NRF bursaries available for students who have excelled in their undergraduate studies. There is also the possibility of an SAWISE bursary for outstanding female South African students (<http://web.uct.ac.za/org/sawise/InfoLeaflets/SAWISE%20Angus%20scholarship%20ad.pdf>). Please consult the University’s bursaries office for more information.

COMPOSITION OF THE PROGRAMME

The Honours programme serves as the first level of postgraduate training in Genetics and therefore covers the broader field of Genetics. The Honours programme starts off with a personal interview with each student in order to discuss any preferences and expectations. While students do choose in which research specialization field they would like to do their research project, they are nonetheless students are strongly advised to use the Hons programme as an opportunity grow and enhance their skills and knowledge in all aspects of Genetics. The Genetics Honours programme currently consists of:

- **GTK 702: Seminar Course**

During this module students are expected to both present several short “journal club”-type presentations of selected articles, and to complete one detailed written and presented seminar. The objective of the module is to teach students how to collect information and condense this into the format of either a short oral presentation or a more detailed oral and written report. A main outcome for this module is that students understand the process through which information is accumulated, evaluated, processed and communicated.

- **GTK 704: Trends in Genetics**

A short series of discussions and essays focusing on a selection of advanced topics, as well as recent advances in the field of genetics, and 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.

- **GTK 705: Research Methods**

Students are guided through the methodology of research planning and data handling. The *joint techniques course* covers all basic recombinant DNA techniques and related technologies such as centrifugation, electrophoresis, gene cloning, hybridization, protein analysis, as well as PCR, sequencing and basic bioinformatics training. This course is followed by a selection of *advanced technique courses*. Scientific writing and presentation skills required for research in genetics are also addressed. The module is assessed by means of reports, brief presentations, as well as during the mid-year exam.

- **GTK 703: Research Project**

An Honours research project has well defined limits and aims to teach students the basic concepts involved in research planning, how to develop appropriate strategies and how to use technology to answer well defined questions. The module also has a strong theoretical component since emphasis is placed on writing and presenting a comprehensive literature review and project proposal.

The projects will give students experience in a range of technologies to which they will be exposed in the workplace. Students are first introduced to the various research focus areas in the Department and then allowed to select a project from one of the research areas. The project is usually conducted under the direct mentorship of a senior postgraduate student and the Honours student forms part of the research programme's team. The research project is the main activity during the second half of the year and is assessed in the form of a written report in the format of a research article, a formal presentation and a research poster. In some instances may be possible to extend the Honours project to develop into an MSc project. This might reduce the time necessary to complete the MSc.

- **MLB 721: Molecular and Cellular Biology**

The module addresses the principles and applications of molecular biotechnology. Very strong emphasis is placed on the principles of research planning and the use of molecular technology to address questions in the biological sciences. The module is assessed by means of a research project proposal submitted by each of the students. This proposal should focus on the use of recombinant DNA technology in addressing questions in the biological sciences. Students may choose their own research proposal topic and are encouraged to choose something that is directly related to their own field of interest, postgraduate specialization or future career commitments. There is also an oral examination based on the proposal submitted.

Students are welcome to approach any of the lecturing staff in the Department of Genetics if you have any more questions regarding the Honours programme or if you would like to know more about the research programmes in the Department.

Last updated: March 2014

HONOURS in GENETICS HONOURS in BIOTECHNOLOGY

IMPORTANT DATES - HONS 2014

➤ 1st round applications* closing date for Hons in 2014:	31 July 2013
➤ 1st round notification of acceptance:	14 August 2013
➤ 2nd round applications*[@] - closing date for Hons in 2014:	8 Nov 2013
➤ 2 nd round notification of acceptance:	before 7 Dec 2013
➤ Final date for accepted students to confirm intent to register:	6 Jan 2014
➤ Start of Hons Programme in 2014 (<i>will be confirmed after acceptance</i>):	about 13 Jan 2014
➤ Postgraduate registration 2014#:	by end Feb 2014

* **Please note:** There will be two rounds of selection for Hons. The first round will be completed by end of July and the second round will be completed by 7 December. The Department may furthermore decide to shortlist candidates for if and when places become available at short notice. All shortlisted candidates will receive final notification by 10 January 2014.

@ **Please note:** All applications not admitted during the 1st round of acceptance will automatically be included during the 2nd round. It is not necessary to re-apply.

Please note: Access to electronic resources, such as ClickUP and the UP library, can only be activated after registration. Hence, delays in registration will result in a delay in access to these important resources. We therefore kindly request that persons admitted to the Hons programme please finalise registration **before the end of January**.