



Division of Physiological Sciences
Department of Human Biology
Faculty of Health Sciences
University of Cape Town

**INFORMATION BOOKLET &
 APPLICATION FORM**
**Prospective MSc (Med) & PhD
 Students in Exercise Science**



	http://www.essm.uct.ac.za/		Enquiries: Hub-sportsinfo@uct.ac.za Applications: HUB-Sportsapplication@uct.ac.za
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A: Introduction

Exercise science is an established area of training and scientific investigation with a large international following. In most institutions, including our own, a multidisciplinary approach is used to acquire an integrated understanding of the effects of physical activity on the body. Exercise Science, Sports and Exercise Medicine, Sports Physiotherapy and Biokinetics courses have been introduced in response to a need expressed by scientists, clinicians and students for proficiency in this field. A combination of physiological, biochemical, biomechanical and clinical expertise is available to assist postgraduate students who are interested in adding to the body of knowledge in this field through original scientific endeavour.

B: Postgraduate Degrees in Exercise Sciences

Postgraduate training in **Exercise Science** can be undertaken at the Honours, Masters or Doctoral level within the Division of Physiological Sciences, Department of Human Biology, Faculty of Health Sciences at the University of Cape Town. Selection for all courses is made primarily on the basis of academic merit. Some consideration is also given to work experience.

Graduates with a BSc(Med)(Hons) or MBChB or equivalent degree are eligible to apply for the MSc (Med) degree. Graduates with an MSc are eligible for the PhD. The MSc degree usually takes up to 2 years to complete and the PhD 3 to 4 years. **MSc (Med) or PhD students in Exercise Science, who have not completed the BSc(Med)(Hons) in Exercise Science course at UCT are required to attend specific lectures and also pass the assignments and/or class tests associated with these lectures.**

C: Applications

The application process involves a number of steps:

1. After reading through the information in this booklet and visiting the Divisional and Physical Activity, Lifestyle and Sport Research Centre (HPALS) (www.essm.uct.ac.za/) web sites determine under which staff member you wish to do your MSc or PhD research project. There is a profile of each staff member and their body of research on the websites.
2. Once you have identified a potential supervisor, contact the staff member and find out whether that staff member has the capacity to supervise you should your application be successful. It is important to point out that the staff member will need to have a research budget to support your planned studies. Thus you will have to discuss with the staff member what potential research project you could do that falls within his or her research interest and area of expertise, for which there is funding.
3. Once you have established there is a willing supervisor who has funding for your proposed work, you will be asked to write a short description of the proposed research project on the attached application form.
4. Complete the attached internal application form and e-mail it together with the other required supporting documents as PDF files to **For Attention: Prof Malcolm Collins** (HUB-Sportsapplication@uct.ac.za). Your application “package” should include the completed internal application form, CV, transcripts of the degrees you have completed and a letter from your potential supervisor saying that they are willing to supervise you and that they have funding available for the work to be done (please make sure YOU submit this letter as part of your application).
5. Your application will be reviewed by an internal selection committee. If you fulfil the criteria, you will be invited to apply formally through the Faculty of Health Science to register as a MSc or PhD student in Exercise Science at UCT.
6. Eligible applicants should log onto the UCT website (<http://applyonline.uct.ac.za/>) to complete and submit the online MSc/PhD application forms.
7. This submitted UCT application form will go directly to the Faculty Office for processing.

D. Selection criteria

- **For MSc (Med) in Exercise Science**

- 1) Honours degree in Physiology, Exercise Physiology, Biokinetics, Physiotherapy, Medical Biochemistry, Dietetics (or equivalent approved by the UCT Senate)
- 2) Or a Medical or Veterinary degree
- 3) A high academic standard
- 4) A proven aptitude for project work and/or research is recommended

- **PhD in Exercise Science**

MSc or equivalent degree approved by the UCT Senate with a proven proficiency in research.

E. Objectives: MSc/PhD

A master's degree is frequently a student's first encounter with real research. Its primary function is training in research. It is a clearly circumscribed piece of work that the supervisor feels confident can be undertaken within, or close to, the minimum time period (generally within two years). The skills imparted, and which the candidate hones through the process, include posing a research question, undertaking a relevant literature review, engaging rigorously with research methods, drawing valid conclusions and communicating findings in a clear, logical and scholarly way. Importantly, the work does not have to contain original findings – it must simply demonstrate a mastery of the methods of research.

The degree of Doctor of Philosophy, on the other hand, demands that the candidate is able to conduct independent research on his/her own initiative. Through the thesis the candidate must be able to demonstrate in his/her thesis

that he/she is at the academic forefront in the topic selected, that the work is original and that it advances knowledge.

Each student has a main supervisor and another 1 or 2 co-supervisor(s) can be appointed by the student and the main supervisor. To achieve the goals of the thesis or dissertation, the student works closely with the supervisor(s), who will (i) guide the student through the process of planning, experimenting and writing and (ii) encourage the student to progress as independently as possible.

It is recommended that the MSc (Med) student should submit the research to a journal prior to graduation and that major portions of the research for a PhD should be published in peer-reviewed journals prior to submission of the thesis.

G. Programme structure

To achieve the goals set out in the previous section, we have structured some specific tasks and responsibilities for both MSc (Med) and PhD students. These are all applicable to full-time students and are applicable to part-time students unless noted otherwise in section VI.

1) General knowledge of exercise science

All newly enrolled MSc (Med) and PhD students in Exercise Science who have not completed the UCT Honours course in Exercise Science will be required to attend certain lectures with the Honours students and pass the associated assignments and/or class tests.

The Fundamentals module covers 'need to know' exercise physiology. Other modules that students may be required to attend include: Biological Basis of Physical Activity/Inactivity and Health; Sports Nutrition and Exercise Performance; Obesity and the Metabolic syndrome; High Performance; Biology of

Musculoskeletal Soft Tissue Injuries; Biomechanics and Technology in Sport. The decision about the courses required will be made by the supervisor and course convenor in discussion with the student. Students doing a thesis that includes laboratory work, will also be required to complete the laboratory techniques course.

2) In-depth knowledge in your specialised area

Students are required to undertake an extensive literature review for the thesis. Part of this should be done before planning the project/s, but students are also required to keep up with new publications in your area throughout the time-course of your projects and write-up. The final literature survey must be up to date.

You are required to submit your research proposal to the appropriate Ethics Committee and Postgraduate Research Committee of the Faculty of Health Sciences. You are encouraged to make contact with researchers from other UCT departments, local and international universities whose interests overlap with your own.

3) Research skill

The proposal/s for research related projects must be presented to the department for comment/suggestions before data collection is started. The research proposal must also be submitted in writing to the Postgraduate Research Committee of the Faculty of Health Sciences. If required, approval must also be obtained from the appropriate research ethics committee before data collection is started.

Where appropriate, senior MSc and PhD students will be required to co-supervise research projects of the Hons and MPhil students.

4) Proficiency in data collection and interpretation

Early in the year, new students will have the opportunity to join the honours techniques courses which will cover routinely used techniques in the biochemical, biomechanical and physiology laboratories. Students can discuss the content with their supervisor(s) to decide what is relevant. Students are encouraged to attend the honours research module which will cover topics related to writing and presentation skills, and statistics. Students are also be required to attend the weekly Divisional of Physiological Sciences and HPALS seminars.

H. Regulations

All MSc (Med) and PhD students must register each year. Within the first year of registration for the MSc, a research proposal must be submitted to the Postgraduate Research Committee of the Faculty of Health Sciences. The PhD candidate must be approved by the UCT Senate on recommendation from the Faculty. Approval is dependent on the suitability of the subject matter, the research proposal and the conditions under which the work will be carried out.

The main supervisor submits a progress report once a year to the Postgraduate Research Committee of the Faculty of Health Sciences. The candidate may not re-register unless the progress has been deemed satisfactory. The UCT Senate may suspend or cancel the registration of a candidate whose progress is unsatisfactory.

The minimum required time for an MSc (Med) is one year. A PhD candidate must be registered for at least two full years. Retrospective registration is not allowed, except by special permission of the UCT Senate. The candidate must maintain unbroken registration between admission and graduation unless granted leave of absence by the Doctoral Degrees Board.

Submission of the dissertation or thesis for examination imparts a free licence to the University to publish it in whole or in part in any format that the University deems fit.

Before the PhD thesis is submitted the candidate must notify the Doctoral Degrees Board Office in writing of the expected date of submission. This should be accompanied by a signed statement from the main supervisor that he/she supports the submission of the thesis for examination. This should be done by 1 Feb or 20 June, with final submission made by 1 Mar or 15 Aug for the June or December graduations respectively. The University does not undertake that the degree will in fact be awarded at any specific date.

More information about the roles and regulations for MSc and PhD students can be found at: <https://www.uct.ac.za/students/postgraduates/administration/>

I. Funding opportunities

Scholarships are available for MSc and PhD students from a variety of institutions.

For details check:

<https://www.uct.ac.za/students/postgraduates/funding/degrees/overview/>.

These awards are administered by UCT and are available for full-time students only. Criteria are in the first place, outstanding academic results, and in the second place above average potential as a researcher and a commitment and dedication to science. Financial need is also considered. In some instances only the cost of tuition is supplied. Renewal of scholarships is dependent on the academic performance of the student.



INTERNAL APPLICATION FORM for prospective MSc (Med) & PhD Students in Exercise Science

The selection of students for the MSc (Med) and PhD programmes in Exercise Science at within the Department of Human Biology's Division of Physiological Sciences at UCT is made firstly by an internal committee which then recommends to the the Faculty of Health Sciences that the applicant is accepted into the course. To assist us, please fill out the following questionnaire in as much detail as possible and return via e-mail to:

For Attention: Prof Malcolm Collins at HUB-Sportsapplication@uct.ac.za

The internal selection committee will also need:

- 1) Your CV containing (i) degrees already attained and number of years required for completion of each, (ii) degree and university for which you are currently registered, (iii) number of years you have been registered, and (iv) local international publications
- 2) Certified copy of your marks transcripts
- 3) A letter of support from you proposed supervisor

Surname	
First Name	
E-mail Address	
Cell Number	

Postal Address	
Postal Code	
Age	

Applying for	MSc (Med)		PhD	
What general area of Exercise Science are you particularly interested in and why?				
In what particular specialised area do you wish to concentrate your research?				

Main Supervisor	
Co-Supervisor(s)	
Short description of the proposed research project	
What research skills do you already possess?	

On what topics have you lectured to undergraduate students, graduate students, or the public?			
What are your ultimate career goals?			
How do you plan to finance your studies? Please provide some details.			
Scholarships/Bursaries			
Part time work			
Other			
<p>Please note: All newly enrolled MSc (Med) and PhD students in Exercise Science who have not completed the UCT Honours course in Exercise Science will be required to attend specific lectures and to also pass the associated assignments and/or class tests.</p>			
I have read and accept the above requirements			
Signature		Date	