



Division of Exercise Science & Sports Medicine
Department of Human Biology
University of Cape Town

INFORMATION BOOKLET

Prospective MSc/PhD Students

University of Cape Town:
www.uct.ac.za

Division of Exercise Science and Sports Medicine (ESSM)

A: Introduction

Exercise science is developing area of 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 and Sports Medicine courses have been introduced in response to a need expressed by doctors, scientists and students for proficiency in this field. A combination of biochemical, physiological 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.

The Division of Exercise Science and Sports Medicine (ESSM) is accommodated in the Sport Science Institute of South Africa, Newlands and is a unit within the Department of Human Biology, Faculty of Health Sciences at the University of Cape Town.

B: Postgraduate Degrees at ESSM

Postgraduate training in Exercise Science can be undertaken at the Honours, Masters or Doctoral level. Selection for all courses is made primarily on the basis of academic merit. Some consideration is also given to work experience and recreational or sporting activities.

MSc and PhD. Students with the BSc(Med)(Hons) or MBChB or equivalent degree are eligible for the MSc. Students with an MSc or 1 year of full-time registration for an MSc are eligible for the PhD. The MSc degree usually requires 2 years to complete and the PhD 3-4 years. **MSc or PhD students in Exercise Science, who have not completed the BSc(Med)(Hons) Exercise Science course, are required to attend the honours Fundamentals lectures and to also pass the class tests associated with this course.**

C: Applications

The application process involves a number of steps.

1. After reading through the information in this booklet and visiting the ESSM web site (<http://www.essm.uct.ac.za>), determine under which staff member you wish to do your MSc or PhD. There is a profile of each staff member and their body of research on the website.
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. There is an area on the attached application form where you will indicate who your potential supervisor will be.
3. Once you have established there is a willing supervisor who has funding for your proposed work, you will need to write a short research proposal for the selection committee that will be submitted with your application questionnaire (attached).
4. When you are ready to submit your application, log onto the UCT website and complete the online application form for MSc/ PhD and then submit.
[http://applyonline.uct.ac.za/](http://applyonline.uct.ac.za)
This application form will go directly to the Faculty Office for processing.
5. Please also complete the questionnaire and other application documents that accompany this booklet and send to Prof Malcolm Collins (malcolm.collins@uct.ac.za). Your application “package” should include the questionnaire, CV, transcripts of the degrees you have completed, 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 and NOT that the supervisor emails me directly), and a short project proposal.

D: Address

UCT Division for Exercise Science and Sports Medicine
Sport Science Institute of South Africa
PO Box 115,
Newlands
7725
SOUTH AFRICA

E. Selection criteria

(a) MSc

- 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.

(b) PhD

MSc, (or an appropriate MA) with a proven proficiency in research.

F. Objectives: MSc/PhD

- 1) Development of in-depth knowledge and advanced research skills in an approved specialised area of your choice
- 2) Continued development and maintenance of a sound basic and current knowledge of the field of exercise science
- 3) Proficiency in data collection and interpretation of results (see specific requirements below)
- 4) Competent dissemination of information, including presentation and writing of scientific topics

Specific additional objectives for PhD

- 1) To develop a capacity for critical evaluation of research in your area
- 2) To develop innovative thinking
- 3) To improve problem-solving abilities
- 4) To investigate and utilise funding opportunities/ grant applications
- 5) To gain independence in research and scientific writing skills
- 6) To gain experience in supervision of research
- 7) To publish the results of your research in peer-reviewed international scientific journals
- 8) To present research results at national and international conferences and to interact with fellow researchers in your field.

G. Thesis

The major goal of the MSc/PhD student is to produce a thesis/dissertation containing:

- (i) a critical and thorough appraisal of the basic knowledge and the current issues in the research area of your choice
- (ii) a detailed description of the research proposal, methodology used and the results obtained, and

(iii) an interpretation of the results and a discussion of their relevance relative to other work in the field.

The PhD degree requires that the research should have an original component, and that the results should add significantly to our knowledge in the area.

The MSc thesis is evaluated by two external examiners and the PhD is evaluated by three external examiners. In both cases the examiners are from other institutions, usually from overseas academic institutions.

Each student shall select a main supervisor and another 1 or 2 co-supervisors will be selected/appointed by the student and the chief supervisor. To achieve the goals of the thesis, the student will work closely with 2 supervisors, who will (i) guide you through the process of planning, experimenting and writing and (ii) encourage you to progress as independently as possible.

It is recommended that the MSc 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. The thesis itself may be written as a series of related journal articles.

H. Programme structure: MSc and PhD

To achieve the goals set out in the previous section, we have structured some specific tasks and responsibilities for both MSc 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 and PhD students who have not completed the UCT Hons course in Exercise Science will be required to attend certain lectures with the Honours students and pass the “Fundamentals” Module,

The Fundamentals module covers ‘need to know’ exercise physiology. Other modules that you may 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. Students doing a thesis that includes laboratory work, will be required to complete the techniques course.

2) In-depth knowledge in your specialised area

- (i) You are required to undertake an extensive literature review for the thesis. Part of this should be done before planning the project/s, but you 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.

A summary of your initial literature survey must accompany your proposed research outline when this is submitted to the 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 research proposal/s for thesis 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.

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, the 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. You can discuss the content with your supervisor to decide what is relevant to your research. Students are encouraged to attend the honours Research module which will cover topics related to writing and presentation skills, and statistics.

I. Regulations:

All MSc 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 per 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 is 1 year. The PhD candidate must be registered for at least 2 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 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/>

J. Funding opportunities

Scholarships

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.

