

ADMISSION PROCEDURE

To register for your postgraduate studies, a three-phased approach is followed:

1. Initial Application

- An initial application is submitted on the university website <http://www0.sun.ac.za/pgstudies/>
- The main purpose is for the student to receive a student number that is then used for tracking purposes.

2. Selection Phase

- Selection occurs through the postgraduate program committee of the Physiotherapy Division.
- The **purpose** is to identify candidate suitability, and whether the division will be able to provide supervision for the specific research topic area.
- **The division will publish potential research topic areas**
 - These research areas have been described by staff and supervision can thus be provided for the intended study year.
 - Alternatively students may also motivate for alternate research topic areas. **A clear motivation** must accompany the divisional application.
- **Students must submit the following documents electronically** to the Physiotherapy postgraduate administration officer erein@sun.ac.za
 - Two page Curriculum Vitae;
 - One page letter to motivate why you should be considered for selection to the postgraduate program;
 - The chosen research topic area
- **PLEASE NOTE:** The internal deadline for applications is **15 November** in the year before the intended study-year.
- Students will be informed of the outcome of this process by the end of November in the year before the intended study-year.

3. Registration Phase

- Once you are accepted into the program you must register.
- This is the formal phase where you will become an official student of Stellenbosch University, and is administered by the central administration.
- It is possible to register on-line. Information will be available at <http://sun025.sun.ac.za/portal/page/portal/postgraduate/home>
- **D-date for registration is March of the intended study year.**
- The department also requires a postgraduate Memorandum of Understanding (MOU) to be signed. You will finalize the content of this MOU in consultation with your supervisor. Completed forms must be submitted to the Physiotherapy postgraduate administration officer erein@sun.ac.za by 30 March.



Faculty of Medicine and Health Sciences
Stellenbosch University



PHYSIOTHERAPY POSTGRADUATE PROGRAMS

M Physiotherapy (Thesis)

PROSPECTUS 2015

AIMS OF THE PROGRAMME

The aim of the programme is to:

- equip students with the necessary skills in order to undertake original, advanced and independent research in the field of Physiotherapy;
- prepare students for various forms of scientific professional communication; and
- produce professionals with the skills and critical cognitive capability to advance the profession and to contribute to a pool of professional and academic practitioners in the field of Physiotherapy.

ADMISSION REQUIREMENTS

- A four-year bachelor's degree in Physiotherapy, or an equivalent qualification approved by Senate; and
- Registered as a Physiotherapist/ Physiotherapy student with the South African Health Professions Council.

COURSE DURATION

- One year full time
- Two years part time

Successful completion of Research Methodology Course is compulsory.

CONTACT INFORMATION

Postgraduate Administration : Ms E Reinke 021 938 9037

erein@sun.ac.za

Chair: Postgraduate Committee: Prof S Hanekom 021 9389496

sdh@sun.ac.za

Proposed research projects for 2015

The following research topic areas have been described by staff members. The Physiotherapy division can provide supervision for these research projects in 2015. There are also a number of existing research projects which students can join. This information is available on request
(Please refer to the description of the selection phase of the admission procedure)

PEDIATRIC NEUROLOGY

DR M UNGER (munger@sun.ac.za) MS M BURGER (MBU@sun.ac.za)

Optimizing functional ability of children with cerebral palsy (measurement and intervention studies):

Comparator studies: e.g. land-based vs. vibration platform training

What is the influence of wearing shoes on the balance subscale/dimension in selected developmental motor performance measures/scales?

Efficacy studies of aerobic based activities vs. resistance based activities in children with and/or without pathology

Neuro-developmental outcome of infants born to mothers with severe mental illness:

The objective of this study is to evaluate infants' fine and gross motor outcome of children born to mothers with severe mental illness at 6months corrected age.

NEUROMUSCULOSKELETAL: PROF Q LOUW (galouw@sun.ac.za)

Etiology of anterior knee pain

This project encompasses a range of investigations into the etiology of anterior knee pain. Biomechanical and morphological factors will be investigated. The project will be conducted by a multidisciplinary team consisting of physiotherapists, bioengineers, orthopaedic surgeons and radiologists.

PAIN: MS D ERNTSZEN (DD2@sun.ac.za)

The focus of this project is the assessment of pain in various health care contexts in South Africa. These healthcare contexts could include primary, secondary or tertiary in the neuro-musculoskeletal or neurological fields. Aspects could include validation of pain outcome measures, as well as investigation into the prevalence and characteristics of pain in selected groups.

EXERCISE AND REHABILITATION: DR M UNGER (munger@sun.ac.za)

Efficacy studies investigating exercise equipment designed for rehabilitation purposes

This project encompasses a range of investigations into the associative and causative factors of neuromuscular-skeletal pain as well as investigations into a new approach to assessment and treatment of NMS pain and dysfunction. The study involves laboratory motion analysis, force plate and EMG studies

MOVEMENT ANALYSIS: DR Y BRINK (ybrink@sun.ac.za)

The postural stability and motor control of children diagnosed with Fetal Alcohol Spectrum Disorders. The project focusses on describing the gross and fine motor functioning of children with Fetal Alcohol Spectrum Disorders compared to children with no prenatal alcohol exposure. The research team includes physiotherapists and bioengineers.

ADULT NEUROLOGY: MS INGLIS-JASSIEM (gakeemah@sun.ac.za)

Description of the biomechanics of gait in adults with stroke: The main aim of this study would be to describe the biomechanics of gait using objective gait analysis in adults with stroke. A secondary aim is the development of a classification system for walking gait in adults with stroke.

Biomechanics/kinematics of the trunk segment of normal adults and adults with neurological dysfunction: The main aim of this study would be to investigate various models to describe the biomechanics/kinematics of the trunk segment during gait. Other aims include the description of various movement strategies used by normal individuals and deviations in adults with neurological dysfunction.

Physical approaches to improve the biomechanics/kinematics of the trunk segment of adults with neurological dysfunction: The main aim of this study would be to investigate the effectiveness of various physical approaches to improve the biomechanics/kinematics of the trunk segment of adults with neurological dysfunction.

The effect of sensory and proprioceptive retraining strategies on the gait of adults with neurological dysfunction: The main aim of this study would be to investigate the effectiveness of different physical approaches on the biomechanics of gait.

CARDIO PULMONARY: DR S HANEKOM (sdh@sun.ac.za)

Exercise prescription in ICU: Immobility of critical ill patients has been associated with the development of pulmonary-, neuromuscular and physical impairments. The timing and dose-response of weight bearing positioning and activity is not clear. This international collaborative project will aim to define the safety and effect of positions and activity on cardiac and pulmonary functioning, skeletal muscle activity and patient perception. This data will inform exercise prescription in the critically ill population.

Ventilator Induced Diaphragmatic Dysfunction (VIDD) VIDD is a well described phenomenon in the mechanically ventilated population. This multidisciplinary project will aim to identify predictive markers for extubation failure and develop targeted management strategies to address diaphragmatic weakness.

Pulmonary rehabilitation in pulmonary tuberculosis (PTB) population
This comprehensive multidisciplinary project will aim to investigate health related quality of life and pulmonary dysfunction of PTB populations (adolescents and adults); develop an evidence based approach to the management of pulmonary dysfunction in a rural community; and develop multidisciplinary implementation strategies in consultation with the community to facilitate evidence uptake.

Patient outcome following the implementation of an evidence based protocol in a surgical ICU

Comparing patient outcome (functional ability, HRQoL and patient perception) when implementing early mobility activities in a surgical ICU population compared to usual care