



**UCT DIVISION OF EXERCISE  
SCIENCE AND SPORTS MEDICINE (ESSM),  
DEPARTMENT OF HUMAN BIOLOGY**



**FACULTY OF HEALTH SCIENCES,  
UNIVERSITY OF CAPE TOWN**

## **MASTER OF PHILOSOPHY: BIOKINETICS**

# **STUDENT BROCHURE**

**PROGRAMME LAYOUT AND CONTENT**

# **2021**

**Programme Convenor:** Dr Jacolene Kroff  
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**Introduction:**

The University of Cape Town's Division of Exercise Science and Sports Medicine (ESSM) is proud to announce an MPhil in Biokinetics degree, which will be among the first such qualifications offered in South Africa. A structured master's programme with research will provide an opportunity for important clinical continuing education for the biokineticist, as well as creating a platform for conducting clinically relevant research to add to the growing body of evidence-based practice.

**Aim:**

One of the primary aims of the MPhil Biokinetics degree is provide in-depth and advanced training into the four sub-areas of Biokinetics. The course also aims to fulfil a need that practicing Biokineticists have highlighted (via a survey) to provide an evidence-based, and continuously updated approach to the Biokinetics clinical rehabilitation and management of patients and clients. Additionally, this course provides a vehicle for engaging students in clinically relevant research in the discipline of biokinetics and therapeutic exercise.

**Modules:****2021:**

1. Advanced Clinical Exercise Physiology (HUB5023S)
2. Research Methods and Biostatistics (HUB5017F)
3. Biokinetics in the Workplace (HUB5018F)
4. Nutrition and Ergogenic Aids (HUB5022S)
5. *MPhil Biokinetics Mini Dissertation (HUB5024W) – second years only*

**2022:**

1. High Performance Athlete (HUB4072F)
2. Physical Activity and Epidemiology (HUB5017F)
3. Advanced Strength and Conditioning for Athletic Populations (HUB5020S)

4. Biokinetics in persons with neuromuscular conditions (HUB5021S)
5. *MPhil Biokinetics Mini Dissertation (HUB5024W)* – for all second years in 2022.

The modules will comprise of 12 lectures either offered face-2-face, online synchronously and online asynchronously. Non-Covid-19 Course structure: Some of the lectures will take place during a 'block week' (2-3 consecutive days) at the beginning and/or at the end of each term/semester. The balance of lectures will take place once every second week until the end of the semester, either on a Monday from pm to 5pm or a Thursday from 3pm to 5pm. Covid-19 Course Structure: Lectures will take place once every second week per module until the end of the semester. Modules may be separated as theory and practical components. Where practical components cannot be offered synchronously or asynchronously online, the practical components will be completed either preceding the module (for the next semester) or following the exam of module which will be between the two module exams (one week apart) within the semester.

The evaluation for each of the modules will comprise of two assignments and a written exam. The assignments will be submitted during the semester. Some assignments may be written assignments for hand-in and other assignments may require a presentation to the lecturer and group (or both formats). The written examination will take place at the end of each semester. The student must pass each of the modules (50% pass mark) in order to qualify for the degree. The total assignment mark (average of the two assignments) will count 50% towards the final mark of the module. The examination mark counts for the other 50% of the final mark of the module.

One Examination is completed per module. Each theory examination will count 100 marks and will be completed over 3 hours. Exam papers usually consist of 5 x 20 mark questions, where a 20 mark question will cover a specific topic. The 'topic' question will be divided into any of the following: 1 x 20 mark essay question, 2 x 10 marks, 4 x 5 marks, 5 x 4 marks, etc.

## **Duly Performed (DP) Requirements**

Students must attend 80% of the total number of lectures per module to write the written examination.

## **Dissertation:**

Each student will be required to complete a mini-dissertation, with the bulk of the work being completed in the second year of study. Students must register for the mini-dissertation within their second year of study. The mini-dissertation must be submitted by early February of the following year to prevent re-registration for the mini-dissertation. Students will be encouraged to submit their experimental chapter for publication in peer-reviewed journal.

## **FREQUENTLY ASKED QUESTIONS:**

### **1. When do applications open and close?**

Applications open in April and the closing date is the 31 October.

Applicants will be informed of the outcome end November/beginning December.

### **2. Who do I contact for an application form?**

Contact Ms Salega Tape at the UCT Postgraduate office. Her email address is: [salega.tape@uct.ac.za](mailto:salega.tape@uct.ac.za) and her telephone number is 021 021 406 6340

### **3. Who should I contact if I have any other queries related to the course work?**

Please contact the course coordinator, Dr Jacolene Kroff. Her email address is: [jacolene.kroff@uct.ac.za](mailto:jacolene.kroff@uct.ac.za) and her telephone number is 021 6505126.

### **4. How long does It take to complete the MPhil Biokinetics degree?**

This is a two-year course to complete all coursework. Students are encouraged to complete their mini-dissertation during year two of the course, but will be allowed to re-register for additional years based on supervisor recommendations.

**5. What is the overview of the course?**

The course comprises of 8 modules and a mini-dissertation. Four modules are completed in year one, and the remaining 4 modules in year 2 plus the mini-dissertation.

**6. How often do lectures take place?**

Two modules are completed per semester. Lectures happen once or twice (2 hours per lecture) every second week per module, respectively. Where the module require sface-to-face practical components, these components will be offered face-to-face between examination dates at the end of the semester. Therefore lectures are presented weekly on Monday and/or Thursday from 3pm to 5pm alternating from week to week between modules.

**7. How are the modules evaluated?**

Students must attend at least 80% of all lectures. There are TWO assignments and one exam per module. The exam takes place the last week of the semester.

**8. Which modules take place in year 2021 (year 1)?**

1. Clinical Exercise Physiology (HUB5023S)
2. Research Methods and Biostatistics (HUB5017F)
3. Biokinetics in the Workplace (HUB5018F)
4. Nutrition and Ergogenic Aids (HUB5022S)
5. MPhil Biokinetics Mini Dissertation (HUB5024W) (if you are 2<sup>nd</sup> year)

**9. Which modules take place in year 2022(year 2)?**

1. High Performance Athlete (HUB4072F)
2. Physical Activity and Epidemiology (HUB5017F)
3. Advanced Strength and Conditioning for Athletic Populations (HUB5020S)
4. Biokinetics and Neuromuscular Disorders (HUB5021S)
5. MPhil Biokinetics Mini Dissertation (HUB5024W) (if you are 2<sup>nd</sup> year)

**10. How much does the dissertation contribute to the final mark?**

Each student must complete a dissertation, the sub-section of which are; research proposal, literature review and the research project which can be drafted as for a peer-reviewed publication. The dissertation contributes a third of the total credits for the degree and should therefore comprise of two chapters (a literature/systemic review and one experimental chapter)

**11. Can you tell me more about ESSM?**

More information on ESSM can be found on their website at;

<http://www.essm.uct.ac.za/>

**12. What is the costs involved?**

In 2021, each course code fee were R5410, thus R 5410 x 4 modules in year one = R21 640, and approx. R5 700 x 4 modules (5% increase in 2022). If you need to complete / register for your mini-dissertation (second year of study) the fee is R21 190 for the minor dissertation fee (this will increase with a minimum of 5% in 2022).

**Quick Summary of Courses for MPhil Courses for MPhil specialisation in Biokinetics:**

All the courses are compulsory and more than 50% of the work towards the dissertation must be completed in year one.

	NQF credits	HEQSF level
HUB4072F High Performance Athlete	15	9
HUB5016F Physical Activity and Epidemiology	15	9
HUB5017W Research Methods and Statistics for Physical Activity	15	9
HUB5018S Biokinetics in the Workplace	15	9
HUB5020F Advanced Strength and Conditioning for Athletic Performance	15	9
HUB5021S Biokinetics and Neuromuscular Disorders	15	9
HUB5022S Nutrition and Ergogenic Aids	15	9
HUB5023S Advanced Clinical Exercise Physiology	15	9
HUB5024W Biokinetics minor dissertation	<u>60</u>	<u>9</u>
Total NQF credits:	<u>180</u>	

### **HUB5017F RESEARCH METHODS AND STATISTICS FOR PHYSICAL ACTIVITY**

**NQF credits:** 15 at HEQSF level 9

**Course entry requirements:** None.

**Course outline:** The aim of this course is to provide students with the skills and knowledge to conduct both quantitative and qualitative research studies. In addition, the course facilitates the development and investigation of statistical methods and their application in clinical research. The course is divided into two parts: (i) research methods and (ii) statistics. Content includes the planning, development, execution and evaluation of a qualitative research study; and advanced statistical methods, such as linear regression and survival analyses.

### **HUB5018F BIODYNAMICS IN THE WORKPLACE**

**NQF credits:** 15 at HEQSF level 9

**Course outline:** This course is comprised of work site health promotion programmes. The coursework includes the theory underlying work-site health promotion programmes, how to plan and conduct a needs assessment, and to plan various work site health promotion strategies such as return to work assessments and programmes. The module consist of several real life examples of worksite health promotion programmes.

### **HUB5023S ADVANCED CLINICAL EXERCISE PHYSIOLOGY**

**NQF credits:** 15 at HEQSF level 9

**Course outline:** The aim of this course is to provide biokineticists with advanced training in exercise physiology, enabling them to have a greater understanding of the physiological and metabolic processes and mechanisms that may influence both disease progression and sporting performance. The course content includes delving into the cellular and molecular adaptations that may occur with exercise training and the relationship between genetics, injuries and sports performance. Other topics that are addressed are the effects of exercise on the metabolic system, cellular respiration and regulation, and metabolism during exercise.

### **HUB5022S NUTRITION AND ERGOGENIC AIDS**

**NQF credits:** 15 at HEQSF level 9

**Course outline:** Many clients and patients seeking biokinetics advice also require nutritional support. These include overweight and obese persons, persons with chronic, non-communicable disease, and sports persons and athletes. This course aims to provide students with a broad understanding of how ergogenic aids and nutrition can influence exercise and sports performance and also of weight management. The course aims to equip students to make sound judgements of both the value and dangers of ergogenic aids in exercise performance. The topics that are addressed in this course include energy expenditure and requirements for weight management and exercise performance, hyponatremia, body composition for sport and the use and abuse of nutritional and pharmacological supplements and ergogenic aids in sport. (It is important to note that students will not be sufficiently qualified to prescribe diets and eating plans for individuals or athletes; rather they will have an understanding of the physiological mechanisms and adaptations that occur with various forms of nutritional supplementation and effects of ergogenic aids.)

### **HUB5016F PHYSICAL ACTIVITY AND EPIDEMIOLOGY**

**NQF credits:** 15 at HEQSF level 9

**Course outline:** This course aims to provide students with an understanding of the complex nature of the biological, socio-cultural and socio-ecological interactions on physical activity and health promotion, with an emphasis on quantifying the burden of disease associated with physical activity/inactivity, its relationship with other risk factors, and the evaluation of health promotion programmes in various settings. The topics that are covered in this course include the history of physical activity and health; concepts and methods in epidemiology; measurement and surveillance; development, implementation and evaluation of evidence-based health promotion programmes, focusing on physical activity in various settings; theories of behaviour change and their application in promoting physical activity; and environmental determinants of physical activity.

### **HUB4072F HIGH PERFORMANCE ATHLETE**

**NQF credits:** 15 at HEQSF level 8

**Course outline:** Sports performance is improving almost daily in most sporting codes, which may in part be due to the many advances in sports training. This course provides an extensive understanding of skills applied when working with high performance or elite athletes. The coursework includes working in a multidisciplinary team, game analysis, travelling with a team, the influence of environmental factors on performance, developing sports-specific drills, and how to prepare for competitions such as the Olympics or World Cup.

### **HUB5021S BIODYNAMICS AND NEUROMUSCULAR DISORDERS**

**NQF credits:** 15 at HEQSF level 9

**Course entry requirements:** None.

**Course outline:** This course specifically focuses on the role and application of biokinetics (in which exercise is the therapeutic modality) for patients and clients with neuromuscular conditions, and throughout life. A key focus is to position biokinetics practice, and align it with other disciplines such as physiotherapy and occupational therapy. The conditions that are addressed in this course include the aetiology, prognosis and exercise prescription for patients with stroke, spinal cord injuries, amputees, cerebral palsy, and Parkinson's disease.

### **HUB5020S ADVANCED STRENGTH AND CONDITIONING FOR ATHLETIC PERFORMANCE**

**NQF credits:** 15 at HEQSF level 9

**Course outline:** There is an increasing need for biokineticists to expand their skills to become specialised sports and conditioning practitioners, especially in the climate of rapidly changing and evolving training methods and approaches. The course aims to provide biokineticists with advanced skills for strength and conditioning training, which



will equip them to prescribe training regimes for special populations, general fitness and conditioning regimes, and sports performance and the rehabilitation of injuries. The coursework includes advanced training in understanding physiological and biomechanical mechanisms, principles and assessment, and how these apply to strength and conditioning training.

### **HUB5024W BIODYNAMICS MINOR DISSERTATION**

**NQF credits:** 60 at HEQSF level 9

**Course outline:** The minor dissertation is prepared under supervision. It must be between 15 000 and 20 000 words in length and must be on a topic in biokinetics. Students are trained in statistics where necessary, in research methods, in conducting literature reviews, and in designing a research proposal. Having submitted their research proposals and obtained formal ethics approval where necessary, candidates proceed with their research, analyse the results and write up the dissertation. Master's degree candidates must be able to reflect critically on theory and its application. They must be able to deal with complex issues systematically and creatively, to design and critically appraise research, to make sound judgements using the data and information at their disposal, and to communicate their conclusions clearly to specialist and non-specialist audiences.

**Assessment:** External examination of the minor dissertation.

**EXAMPLES OF LECTURE SCHEDULES FOR EACH MODULE (YEAR 1 - 2020)**  
*(Titles and dates are subject to change)*

<b>Semester 1</b>				
<b>HIGH PERFORMANCE ATHLETE HUB4072F</b>				
<b>Nr</b>	<b>Date</b>	<b>Time</b>	<b>Lecture</b>	<b>Lecturer</b>
1	27-Jan-20	15h00 - 17h00	Background to monitoring fitness and fatigue	Mike Lambert
2	03-Feb	09h00 - 11h00	Practical aspects - monitoring fitness and fatigue 1	Mike Lambert
3	03-Feb	11h30 - 13h30	Practical aspects - monitoring fitness and fatigue 2	Mike Lambert
4	03-Feb	14h00 - 16h00	Introduction to Circadian rhythms, sleep, travel on performance.	Dr Dale Rae
5	04-Feb	09h00 - 11h00	Rugby Team Analysis 1	Dr Sharief Hendricks
6	04-Feb	11h30 - 13h30	Circadian Rhythms: Influence on performance	Dr Dale Rae
7	04-Feb	14h00 - 16h00	Rugby Team Analysis 2	Dr Sharief Hendricks
8	17-Feb-20	15h00 -17h00	<i>accommodate change</i>	
9	02-Mar-20	15h00 -17h00	Paralympic sport (Governance and classification system)	Sarah Arnold
10	16-Mar-20	15h00 -17h00	<i>Accommodate change or added lecture</i>	
11	30-Mar-20	15h00 -17h00	High Performance testing for competitive swimmers 1	Lezandr� Wolmarans
12	20-Apr-20	15h00 -17h00	High Performance testing for competitive swimmers 2	Lezandr� Wolmarans
13	30-Apr-20	15h00 -17h00	Drugs and Sport 1	Dr Jeroen Swart
14	07-May-20	15h00 -17h00	Drugs and Sport 2	Dr Jeroen Swart
	<b>08-Jun-20</b>	<b>9h00 - 12h00</b>	<b>WRITTEN EXAM</b>	

<b>PHYSICAL ACTIVITY AND EPIDEMIOLOGY HUB5016F</b>				
<b>Nr</b>	<b>Date</b>	<b>Time</b>	<b>Lecture</b>	<b>Lecturer</b>
1	10-Feb-20	15h00 -17h00	Making the case for PA (inlc role of PA, barriers)	Vicki Lambert
2	24-Feb-20	15h00 -17h00	Physical Activity and Policy	Vicki Lambert
3	09-Mar-20	15h00 -17h00	Best Practice for PA interventions	Vicki Lambert
4	23-Mar	09h00 - 11h00	Environmental determinants of Physical activity 1	Vicki Lambert
5	23-Mar	11h30 - 13h30	Theories of behaviour change	Philippa Skowna
6	23-Mar	14h00 - 16h00	Basic measures in PA epidemiology 1	Vicki Lambert
7	24-Mar	09h00 - 11h00	Objective Measures of Sleep & Physical activity: Actiwatch 1	Dale Rae
8	24-Mar	11h30 - 13h30	Objectives Measures of Physical activity	Jacolene Kroff
9	24-Mar	14h00 - 16	Survey instruments and analysis	Vicki Lambert
10	06-Apr-20	14h00 - 16h00	Objective Measures of Sleep & Physical activity: Actiwatch 2 - Presentation (assignment)	Dale Rae
11	04-May-20	15h00 -17h00	Environmental determinants of Physical activity 2	Vicki Lambert
12	11-May-20	15h00 -17h00	Leading the horse to water	Vicki Lambert
13	18-May-20	15h00 -17h00	Physical activity and children 1	Catherine Lacey
14	25-May-20	15h00 -17h00	Physical activity and children 2	Catherine Lacey
	<b>17-Jun-20</b>		<b>WRITTEN EXAM</b>	

## Semester 2

<b>STRENGTH AND CONDITIONING FOR ATHLETIC POPULATIONS HUB5020S</b>				
<b>Nr</b>	<b>Date</b>	<b>Time</b>	<b>Lecture</b>	<b>Lecturer</b>
1	13-Jul-20	09h00-11h00	Revision of anatomy of musco-skeletal system	Graham Louw
2	13-Jul-20	11h30 - 13h30	RIPT	Niel Michau
3	13-Jul-20	14h00 - 16h00	Testing and Evaluation	Ayden Smith
4	14-Jul-20	09h00 - 11h00	Adaptations to endurance training	Ben Capostagno
5	14-Jul-20	11h30 - 13h30	DOMS and Muscle degeneration	Mike Lambert
6	14-Jul-20	14h00 - 16h00	Exercise, Spotting techniques, biomechanics of resistance training	Ayden Smith
7	27-Jul-20	15h00 - 17h00	Age and sex related differences and their implications of resistance training	Ayden Smith
8	17-Aug-20	15h00 - 17h00	Plyometric, power, ballistics, reactive strength	Ayden Smith
9	31-Aug-20	15h00 - 17h00	Speed, agility, speed endurance development	Ayden Smith
10	14-Sep-20	15h00 - 17h00	Periodization	Ayden Smith
11	28-Sep-20	15h00 - 17h00	RIPT	Niel Michau
12	12-Oct	15h00 - 17h00	Periodization models	Ayden Smith
	09-Nov-20	9h00 - 12h00	Strength and Conditioning Exam	

## SEMESTER 2

<b>BIOKINETICS AND NEUROMUSCULAR DISORDERS HUB5021S</b>				
<b>Nr</b>	<b>Date</b>	<b>Time</b>	<b>Lecture</b>	<b>Lecturer</b>
1	20-Jul-20	15h00 - 17h00	Central Nervous System	Graham Louw
2	03-Aug-20	15h00 - 17h00	Peripheral Nervous System	Graham Louw
3	24-Aug-20	09h00 - 11h00	Rehabilitation of people living with Spinal Cord Injuries	Yumna Albertus
4	24-Aug-20	11h30 - 13h30	Rehabilitation of people living with spinal cord injuries: Intro to Exo-skeleton	Rob Evans
5	24-Aug-20	14h00 - 16h00	Rehabilitation of people with traumatic brain injuries: Assessment and exercise prescription	Rob Evans
6	25-Aug-20	09h00 - 11h00	Functional activities of unilateral transtibial amputees Including the findings of muscle activation and biomechanical analysis	Sarah Arnold
7	25-Aug-20	11h30 - 13h30	Practical implementation using functional exercises for transtibial amputees	Sarah Arnold
8	25-Aug-20	14h00 - 16h00	Cerebral Palsy - Exercise Prescription & Rehabilitation of people living with CP	Rob Lamberts
9	07-Sep-20	15h00 - 17h00	Cerebral Palsy - Best practice rehabilitation	Rob Evans
10	21-Sep-20	15h00 - 17h00	Parkinson's disease	Elizma Atterbury
11	05-Oct-20	15h00 - 17h00	Stroke Patients: Evidence based rehabilitation	Elizma Atterbury
12	19-Oct	15h00 - 17h00	Parkinson's disease	Elizma Atterbury
13	26-Oct	15h00 - 17h00	Stroke Patients: Best Practice Rehabilitation techniques	Elizma Atterbury
	<b>16-Nov-20</b>	<b>09h00 - 12h00</b>	<b>Biokinetics and Neuromuscular disorders Exam</b>	

**EXAMPLE LECTURE SCHEDULE (YEAR 2 – 2021)**

<b>SEMESTER ONE</b>				
<b>RESEARCH METHODS AND BIOSTATS</b>				
	<b>DATE</b>	<b>Time</b>	<b>Topic</b>	<b>Lecturer</b>
1	06-Mar	15H00-17H00	Searching electronic indices for appropriate references- PubMed, Scopus and Web of Science ; capturing on reference manager or similar	Dale Rae
2	24-Mar	15H00-17H00	Probability and hypothesis testing: 2 samples (t-tests)	James Brown
3	03-Apr	15H00-17H00	Analysis of variance & post-hoc testing	James Brown
4	24-Apr	15H00-17H00	Analysis of variance for repeated measures/ covariance	James Brown
5	03-May	9H00 - 11H00	Library Orientation (Literature Searches)	Gill Morgan
6	03-May	12H00-14H00	Correlations and Limits of Agreement	Mike Lambert
7	03-May	15H00-17H00	Critical appraisal techniques and reviewing manuscripts	Mike Lambert
8	08-May	15H00-17H00	Introduction to systematic reviews and meta-analysis	Vicki Lambert
9	15-May	15H00-17H00	Practical implementation of a meta-analysis	Vicki Lambert
10	12-Jun	15H00-17H00	Introduction to qualitative research	Cathi Draper
11	19-Jun	9H00-11H00	Qualitative research methods	Cathi Draper
12	19-Jun	12H00-14H00	Qualitative data analysis	Cathi Draper
	<b>10-Jul</b>	<b>09h00 - 12h00</b>	<b>Exam</b>	-----

<b>SEMESTER ONE</b>				
<b>BIOKINETICS IN THE WORKPLACE</b>				
	<b>DATE</b>	<b>Time</b>	<b>Topic</b>	<b>Lecturer</b>
1	21-Aug	15H00-17H00	Overview of Worksite Health Promotion	Vicki Lambert
2	04-Sep	15H00-17H00	Needs Analysis for Health Promotion Programmes	Vicki Lambert
3	26-Sep	9H00-11H00	EOH Health:	Paula Pienaar
4	26-Sep	12H00-14H00	Evaluation Planning	Jacolene Kroff
5	26-Sep	15H00-17H00	Return to Work	Jacolene Kroff
6	28-Sep	9H00-11H00	EOH Health:	Paula Pienaar
7	28-Sep	12H00-14H00	Developing Worksite Health Promotion Programmes	Vicki Lambert
8	28-Sep	15H00-17H00	Health Promotion in SA workplace: ESKOM	Nilo Kriek
9	10-Oct	15H00-17H00	EOH Health:	Paula Pienaar
10	23-Oct	15H00-17H00	Presentation of New Health Promotion Programme	Vicki Lambert
11	06-Nov	09H00-11H00	Health Promotion in SA workplace: ESKOM (field visit)	Nilo Kriek
12	06-Nov	12H00-14H00	Health Promotion in SA workplace: ESKOM (field visit)	Nilo Kriek
	<b>20-Nov</b>	<b>09h00 - 12h00</b>	<b>THEORY EXAM</b>	

<b>SEMESTER 2</b>				
<b>NUTRITION AND ERGOGENIC AIDS HUB5022S</b>				
	<b>DATE</b>	<b>Time</b>	<b>Topic</b>	<b>Lecturer</b>
1	14-Aug	15H00-17H00	Nutrition, Physical Activity and Energy Balance	Rowena Visagie
2	28-Aug	15H00-17H00	Energy Metabolism: Protein, Fats, Carbohydrates	Jacolene Kroff
3	18-Sep	15H00-17H00	Sports Specific Nutrition 1 (Endurance Sports)	Rowena Visagie
4	27-Sep	9H00-11H00	Sports Specific Nutrition 2 (Power Sports)	Dietetics Dept
5	27-Sep	12H00-14H00	Nutrition for Weight Control	Dietetics Dept
6	27-Sep	15H00-17H00	Nutrition for Diabetes	Sarah Chantler
7	02-Oct	15H00-17H00	Fad and Quick Fix Diets	Dietetics??
8	16/29 Oct	15H00-17H00	High Fat Low Carbohydrate Diets	Dietetics Dept
9	30-Oct	15H00-17H00	Vitamins and Minerals for Nutrition	Shelley Meltzer
10	06-Nov	15H00-17H00	Supplements: Ergogenic Aids (composition, contamination, etc)	Gary Gabriels
11	07-Nov	9H00-11H00	Supplements: Ergogenic Aids (incl legislation and testing)	Gary Gabriels
12	07-Nov	12H00-14H00	Fact versus fiction (nutritional and ergogenic supplements)	Gary AND Shelly
	<b>13-Nov</b>	<b>09h00 - 12h00</b>	<b>THEORY EXAM</b>	



<b>SEMESTER TWO</b>				
<b>ADVANCED CLINICAL EXERCISE PHYSIOLOGY</b>				
	<b>DATE</b>	<b>Time</b>	<b>Topic</b>	<b>Lecturer</b>
1	13-Mar	15H00-17H00	Exercise Physiology Fundamentals test	Ayesha (invigilating)
2	30-Mar	15H00-17H00	Central Governor Theory	Tim Noakes
3	10-Apr	15H00-17H00	Recovery after exercise	Mike Lambert
4	02-May	09H00-11H00	Introduction to Genetics	Alison September
5	02-May	12H00-14H00	Biomedical Innovation in advanced Exercise Physiology 1	Sudesh Sivasasu
6	02-May	15H00-17H00	Biomedical Innovation in advanced Exercise Physiology 2	Sudesh Sivasasu
7	04-May	9H00-11H00	The future of genomics in Clinical Exercise medicine	Alison September
8	04-May	12H00-14H00	Biomedical Innovation in advanced Exercise Physiology 3	Sudesh Sivasasu
9	04-May	15H00-17H00	Obesity and Metabolic Sequale	Louise Clamp
10	22-May	15H00-17H00	Exercise and Respiratory Disease	Jacolene Kroff
11	29-May	15H00-17H00	Exercise Induced Bronchospasm tests	Jacolene Kroff
12	05-Jun	15H00-17H00	Oral Glucose Tolerance Test and Diabetes	Jacolene Kroff / Hendriena Victor
	<b>14-Jul</b>	<b>09h00 - 12h00</b>	<b>THEORY EXAM</b>	