University of Pretoria Yearbook 2016

BSportSci BSportSci (10135002)

Duration of study	3 years
Total credits	402
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Programme information

This three year full-time BSportSci programme will consist of two specialist qualification pathways, namely Biokinetics and Sports Science. The first two years of study will comprise a generic curriculum shared with all BSportSci students that will include basic and applied sciences of the human body. At the end of the second year selection will take place on academic merit and students will branch into the specific Sports Science curriculum or Biokinetics curriculum up until the completion of their three year of studies. The first year of internship for the Biokinetics students will run concurrently with their third year. Then the Biokinetics students will proceed with the BScHons in Biokinetics with the second year of their internship. The four-year Biokinetics programme (3 + 1) is in line with the new regulations of the HPCSA for Biokinetics training which all universities that offer this programme will follow. The Sports Science students have the option of proceeding with the BScHons in Sports Science, enrol and complete the PGCE or start working in the sporting industry.

Admission requirements

Selection is based on academic merit, using a combination of the the Admission Point Score (APS) and the National Benchmark Test (NBT) as well as a Value-Added Questionnaire (VAQ). For final selection, certain minimum achievement levels are required (refer to the minimum requirements on page 1). In the case of candidates who are still at school, the Grade 11 final examination marks are used as the basis for provisional selection. One hundred (100) students are selected on academic merit for the first year of study.

Minimum requirements for 2016												
Achievement level												
English				**Mathematics**				**Physical Sciences or Life Sciences**				**APS**
NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	
5	3	C	C	5	3	C	C	5	3	C	C	30

Curriculum: Year 1

Minimum credits: 141

Fundamental modules

Academic information management 101 (AIM 101)

Module credits	6.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Information Science
Period of presentation	Semester 1

Module content

Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology. Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

Academic English for Health Sciences (BCur, BDietetics, BOH, BOccTher, BRad and BPhysT) 121 (ELH 121)

Module credits	6.00
Service modules	Faculty of Health Sciences
Prerequisites	No prerequisites.
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	English
Academic organisation	Unit for Academic Literacy
Period of presentation	Semester 1

Module content

Academic reading as well as academic writing and presentation skills, based on the approach followed in the healthcare sciences. **Presented to students in Health Sciences only.*

Academic English for Health Sciences122 (ELH 122)

Module credits	6.00
Service modules	Faculty of Health Sciences
Prerequisites	No prerequisites.
Contact time	2 lectures per week, 1 discussion class per week
Language of tuition	English
Academic organisation	Unit for Academic Literacy
Period of presentation	Semester 2

Module content

Study of specific language skills required in the Health Care Sciences, including interviewing and report-writing skills. *Presented to students in Health Sciences only. (BCur, BDietetics, BOH, BOT, Brad, BPhysT)*

Academic orientation 110 (UPO 110)

Module credits	0.00
Language of tuition	Double Medium
Academic organisation	Health Sciences Dean's Office
Period of presentation	Year

Core modules

Physiology 110 (FSG 110)

Module credits	6.00
Service modules	Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Physiology
Period of presentation	Semester 1

Module content

Introduction (terminology and anatomical orientation); chemical principles; cytology and histology; neuro-physiology and the senses; haematology and body fluids; cardiovascular system.

Physiology 120 (FSG 120)

Module credits	6.00
Service modules	Faculty of Humanities Faculty of Natural and Agricultural Sciences

Prerequisites	FSG 110
Contact time	3 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Physiology
Period of presentation	Semester 2

Module content

Respiratory system; nutrition; digestion and metabolism; kidneys and acid-base equilibrium; endocrinology; reproduction physiology and reproduction; skin and body temperatures.

Medical terminology 180 (MTL 180)

Module credits	12.00
Service modules	Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Ancient Languages and Cultures
Period of presentation	Semester 1 and Semester 2

Module content

The acquisition of a basic medical orientated vocabulary compiled from Latin and Greek stem forms combined with prefixes and suffixes derived from those languages. The manner in which the meanings of medical terms can be determined by analysing the terms into their recognisable meaningful constituent parts, is taught and exercised. The functional use of medical terms in context as practical outcome of terminological application is continually attended to.

Physics for biology students 131 (PHY 131)

Module credits	16.00
Service modules	Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
Prerequisites	Refer to Regulation 1.2: A candidate must have passed Mathematics with at least 50% in the Grade 12 examination
Contact time	1 practical per week, 4 lectures per week, 1 discussion class per week
Language of tuition	Both Afr and Eng
Academic organisation	Physics
Period of presentation	Semester 1

Module content
Units, vectors, one dimensional kinematics, dynamics, work, equilibrium, sound, liquids, heat, thermodynamic processes, electric potential and capacitance, direct current and alternating current, optics, modern physics, radio activity.

Sports injuries I 110 (EXE 110)

Module credits	12.00
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection

This module serves as an introduction to the fundamental concepts related to sports injuries.

Research methodology I 111 (EXE 111)

Module credits	12.00
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection Introduction to information technology in Sport and Exercise – computer skills; research techniques; library services and functions; searches, referencing techniques, plagiarism, ethics in research, theories in research.

Motor learning and development I 120 (EXE 120)

Module credits	12.00
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection A study, critique and analysis of human motor growth and development in regular populations. Growth, maturation, physical activity and performance of children and adolescents as they progress from birth to young adulthood are included.

Exercise science programme development 121 (EXE 121)

Module credits	12.00
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection Development of programmes for stretching and flexibility training, strength training, speed development and plyometrics, endurance training, exercise selection, and periodisation. Sport specific. Periodisation: concepts and applications.

Measurement and evaluation 320 (EXE 320)

Module credits	15.00
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection Selecting appropriate tests, testing protocols and procedures, and evaluation of test data.

Sports practical (basic) 100 (PRC 100)

Module credits	12.00
Contact time	2 practicals per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed – requires departmental selection. Sports-specific skills, team situation; rules and regulations, refereeing; game analysis; coaching.

Introduction to human anatomy 123 (ANA 123)

Module credits	8.00
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed - requires departmental selection This module introduces the student to basic anatomical concepts regarding body areas, levels, axes of motion and anatomical terminology. Development anatomy forms the first part of the module. From there the student continues to the study of osteology, anthropometry, musculo-skeletal system, bone function and classification, nerve innervation, anatomy of the brain, the cardio-respiratory system and the endocrine system. An important aspect of the module is movement anatomy and its application.

Curriculum: Year 2

Minimum credits: 141

Core modules

Sports injuries II 210 (EXE 210)

Module credits	16.00
Prerequisites	EXE 110
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection Overuse injuries, lower limb injuries, knee injuries, and shoulder injuries. Sport-16 specific injuries, sports massage, and advanced CPR.

Applied nutrition 220 (EXE 220)

Module credits	16.00
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection Nutrition and health, digestion, absorption and metabolism, carbohydrates, fats, proteins, energy balance and weight management. Food environment, nutrition during growth, nutrition and physical fitness, nutrition and stress management.

Motor learning and development II 221 (EXE 221)

Module credits	16.00
Prerequisites	EXE 120
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection This module introduces the field-based professional to the processes that underlie human movement learning. Principles of performance assessment, effective instruction, designing practice, rehabilitation and guidelines to optimise training experience, skill acquisition and performance will be included. Opportunities to apply principles and concepts will be incorporated.

Sports practical (advanced) 200 (PRC 200)

Module credits	16.00
Prerequisites	PRC 100
Contact time	2 practicals per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed – requires departmental selection Sports-specific skills, team situation; rules and regulations, refereeing; game analysis; coaching.

Fundamental physiology 110 (SMC 110)

Module credits	12.00
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection The cell, bioenergy, muscle contraction, and respiration.

Applied kinesiology (anatomy) 210 (SMC 210)

Module credits	16.00
Prerequisites	ANA 121, ANA 122
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection. Biomechanics and muscle anatomy, classes of levers, structural kinesiology, central nervous system, and peripheral nervous system.

Applied biomechanics 211 (SMC 211)

Module credits	16.00
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection. This module focuses on the biomechanical principles involved in human movement and sports activities. It comprises the study and analysis of linear and angular kinetics and the understanding of the biomechanical principles underlying the skeletal system and joints.

Applied physiology (exercise) 220 (SMC 220)

Module credits	16.00
Prerequisites	SMC 110
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection. Acid-base balance, thermoregulation, hypo and hyperbaria, exercise metabolism, factors affecting performance.

Event management and entrepreneurship 210 (SMS 210)

Module credits	16.00
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection. Planning, organising, logistics and management of events, and also the effect of events.

Curriculum: Final year

Minimum credits: 130

Core modules

Biomechanics II 321 (BGN 321)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	1 practical per week, 2 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection Applying biomechanical principles through understanding the use of various measurement techniques and technology for the biomechanical analysis of sport.

Applied exercise science (gymnasium) 310 (BGN 310)

Module credits	15.00
Contact time	1 practical per week, 1 lecture per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection The student will be taught on disciplines such as gymnasium layout, warm-up techniques and training methods with reference to traditional anatomical areas.

Testing and evaluation (laboratory) 320 (BGN 320)

Module credits	15.00
Contact time	1 lecture per week, 1 practical per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection After completion of this module the student will be able to perform the following applied physiological practical tests during talent identification and programme prescription: static lung functions, direct maximal oxygen consumption, indirect maximal oxygen consumption, anaerobic power tests, anthropometry, and the Wingate anaerobic muscle endurance test.

Research methodology II 301 (EXE 301)

Module credits	20.00
Prerequisites	EXE 311
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed – requires departmental selection In this module the focus will be on fundamental quantitative or experimental research methodology, and statistics. The student will have the opportunity to demonstrate an understanding of the module through the medium of a written theoretical examination and a research proposal.

Sports injuries (upper and lower quarter) 310 (EXE 310)

Module credits	15.00
Prerequisites	EXE 210
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection This module focuses primarily on preparing the student for specialisation in biokinetics at postgraduate level. The focus is primarily on the anatomical position, symptoms and identification of the most important soft tissue injuries in sport and the use of exercise as a rehabilitation modality in the final phase of rehabilitation.

Laboratory evaluation 301 (PRC 301)

Module credits	20.00
Contact time	2 practicals per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed – requires departmental selection Sports-specific specific evaluation and programme prescription.

Applied physiology 320 (SMC 320)

Module credits	20.00
Prerequisites	SMC 220

Contact time	1 tutorial per week, 2 lectures per week
Language of tuition	English
Academic organisation	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection. Environmental considerations, nutrition, body composition and performance, cardio-vascular physiology.