

# University of Pretoria Yearbook 2016

## HCert (Sports Science) Option: Education (10120002)

**Duration of study** 2 years

**Total credits** 130

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### Programme information

This programme will be an extended programme allowing the student to complete the programme in two years. The programme provides a basis for knowledge and skills development to improve athlete performance by means of physical assessment, exercise and conditioning prescription, and research. It aims to develop coaches who can function successfully in an interdisciplinary environment in order to improve athletes' and sports teams' performances using the latest techniques and research. It will therefore strive towards internationally recognised academic excellence, but with local relevance. The programme will create an ideal learning environment incorporating lectures, tutorials, practical sessions, and problem solving. Students will receive teaching and training by leaders in the field of Sports Science and coaching. Students will get the opportunity to work with various sporting codes and athletes of various skill levels. Upon completion, it will provide students wanting to further their studies with the opportunity to apply for the BA (Sports and Leisure Studies), Option: Sports Coaching Sciences in the Faculty of Humanities, or the BEd degree in the Faculty of Education.

### Other programme-specific information

\*Students who are deemed to be at risk of their level of academic literacy are compelled to take ALL 110 and ALL 125.

Students who are deemed NOT to be at risk of their level of academic literacy are compelled to take language modules to the value of 12 credits from the list of language modules.

## Curriculum: Final year

**Minimum credits: 118**

### 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 literacy 110 (ALL 110)

**Module credits** 6.00

**Service modules**

Faculty of Health Sciences  
Faculty of Theology

**Prerequisites** No prerequisites.

**Contact time** 2 lectures per week

**Language of tuition** English

**Academic organisation** Unit for Academic Literacy

**Period of presentation** Semester 1

**Module content**

This module intends to equip students to cope more confidently and competently with the reading and understanding of a variety of texts, to apply these skills in a variety of contexts and to follow the conventions of academic writing.



## Academic literacy for Humanities 125 (ALL 125)

<b>Module credits</b>	6.00
<b>Service modules</b>	Faculty of Health Sciences
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	English
<b>Academic organisation</b>	Unit for Academic Literacy
<b>Period of presentation</b>	Semester 2

### Module content

This module equips students to understand and use a range of discipline-specific terminology; apply the strategies of critical and comprehensive reading to their own academic literacy; apply the conventions of academic writing to their own writing, using the process approach, to produce intelligible academic texts and use the correct referencing technique as required by the faculty.

## Academic orientation 110 (UPO 110)

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

## Core modules

### Exercise and training principles 151 (EXE 151)

<b>Module credits</b>	6.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Double Medium
<b>Academic organisation</b>	Sport and Leisure Studies
<b>Period of presentation</b>	Quarter 2

### Module content

\*Closed – requires departmental selection

Introduction to physical fitness, multidimensional character of physical fitness, sport specific vs health-related fitness components, physiological effects of training, and application of training principles.

### Fundamental nutrition 152 (EXE 152)

<b>Module credits</b>	6.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Double Medium

**Academic organisation** Sport and Leisure Studies

**Period of presentation** Quarter 3

**Module content**

\*Closed – requires departmental selection

\*Offered by the Department of Human nutrition for the students in Biokinetics, Sport and Leisure sciences  
Nutrition and health, digestion, absorption and metabolism, carbohydrates, fats, proteins, energy balance and weight management.

## Sports injuries (I) 153 (EXE 153)

**Module credits** 6.00

**Prerequisites** No prerequisites.

**Language of tuition** Double Medium

**Academic organisation** Sport and Leisure Studies

**Period of presentation** Quarter 1

**Module content**

\*Closed – requires departmental selection

Biomechanic factors, causes of injuries, soft-tissue injuries, first aid (RICE), massage, strapping and CPR.

## Motor learning and development 159 (EXE 159)

**Module credits** 6.00

**Prerequisites** No prerequisites.

**Language of tuition** Double Medium

**Academic organisation** Sport and Leisure Studies

**Period of presentation** Quarter 4

**Module content**

\*Closed – departmental selection required

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.

## Sports practical (Basic) 151 (PRC 151)

**Module credits** 16.00

**Prerequisites** Admission into relevant programme

**Contact time** 5 practicals per week

**Language of tuition** Double Medium

**Academic organisation** Sport and Leisure Studies

**Period of presentation** Year

## Module content

\*Closed – requires departmental selection

Sport-specific skills, team situation; rules and regulations, refereeing; game analysis; coaching.

## Fundamental anatomy 151 (SMC 151)

**Module credits** 6.00

**Prerequisites** No prerequisites.

**Language of tuition** Double Medium

**Academic organisation** Sport and Leisure Studies

**Period of presentation** Quarter 2

## Module content

\*Closed – requires departmental selection

Orientation and terminology, osseous tissue and skeletal structure, axial skeleton, appendicular skeleton, articulations, and cardiorespiratory system.

## Fundamental physiology 152 (SMC 152)

**Module credits** 6.00

**Prerequisites** No prerequisites.

**Language of tuition** Double Medium

**Academic organisation** Sport and Leisure Studies

**Period of presentation** Semester 1

## Module content

\*Closed – requires departmental selection

The cell, bio-energy, muscle contraction, and respiration.

## Fundamental biomechanics 153 (SMC 153)

**Module credits** 6.00

**Prerequisites** No prerequisites.

**Language of tuition** Double Medium

**Academic organisation** Sport and Leisure Studies

**Period of presentation** Quarter 4

## Module content

\*Closed – requires departmental selection

This module focuses on the biomechanical principles involved in human movement and sport activities. It comprises the study and analysis of the forms of human movement, linear and angular kinematics and fluid mechanics.

## Foundations of recreation and sports management 110 (SRM 110)

<b>Module credits</b>	12.00
<b>Service modules</b>	Faculty of Economic and Management Sciences Faculty of Health Sciences
<b>Contact time</b>	3 lectures per week
<b>Language of tuition</b>	Double Medium
<b>Academic organisation</b>	Sport and Leisure Studies
<b>Period of presentation</b>	Semester 1

### Module content

This module is a broad introduction to sport and recreation as products in the market. Students discover the nature of sport and recreation, the difference between the concepts and policies, plans, strategies and structures of sport and recreation in South Africa and Zone VI in Africa. The dynamic scope and nature of recreation and sports management are introduced and discussed. Emphasis is placed on basic management tasks and functions in sport and recreation contexts, interpersonal skills, leadership and control systems and techniques in sport and recreation. The module establishes a foundation of management knowledge and skills on which subsequent sport and recreation management modules are built.

## Life orientation 111 (JLO 111)

<b>Module credits</b>	12.00
<b>Service modules</b>	Faculty of Health Sciences
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Both Afr and Eng
<b>Academic organisation</b>	Early Childhood Education
<b>Period of presentation</b>	Semester 1

### Module content

To empower the student teacher to achieve and extend his/her personal potential by addressing changes in youth behaviour. The module focuses on characteristics that have been identified in research to bring about positive behaviour change. Students are guided to develop knowledge and skills with regard to physical development and movement as one of the topics of the subject Life Orientation. The module also focuses on certain aspects of sport psychology as well as physiological dimensions needed to assess the movement skills of learners. The practical component focuses on learning and teaching of sport and human movement development skills for the school sport teaching and training environment. This practical component forms the foundation for the following study years.

## Life orientation 121 (JLO 121)

<b>Module credits</b>	12.00
<b>Service modules</b>	Faculty of Health Sciences
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Both Afr and Eng

**Academic organisation** Early Childhood Education

**Period of presentation** Semester 2

### Module content

To empower student teachers to achieve and extend their personal potential and to guide them to develop knowledge and skills with regard to physical and psychological development as two of the topics of the subject Life Orientation. The topic of this module is also Personal Development but focuses on the interpersonal and intrapersonal skills of the student. Topics covered include: developmental stages, self-actualisation, self-concept, conflict management and personal management. The module also focuses on human anatomy and basic physiology as background to developing human movement. The practical component focuses on learning and teaching of sport and human movement development skills for the school sport teaching and training environment. It forms the foundation for the following study years where different disciplines are learnt. On attainment of the learning outcomes the student should be able to demonstrate his/her knowledge and understanding of the theory to be applied in the practical classes.

## Human movement studies and sport management 114 (JMB 114)

**Module credits** 8.00

**Prerequisites** No prerequisites.

**Contact time** 2 lectures per week

**Language of tuition** Double Medium

**Academic organisation** Humanities Education

**Period of presentation** Semester 1

### Module content

The purposes of physical activities as well as theories and philosophies of movement are studied. In addition, the coaching of young athletes and the challenges facing the teacher as coach receive attention. The importance of planning as the first phase of sports management is emphasised.

## Human movement studies and sport management 115 (JMB 115)

**Module credits** 8.00

**Prerequisites** No prerequisites.

**Contact time** 2 practicals per week

**Language of tuition** Double Medium

**Academic organisation** Humanities Education

**Period of presentation** Semester 1

### Module content

In this module the student is required to master and apply basic swimming and life-saving techniques. Attention is also paid to motor skill development and games in the school context.

## Human movement studies and sport management 125 (JMB 125)

**Module credits** 8.00

<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Double Medium
<b>Academic organisation</b>	Humanities Education
<b>Period of presentation</b>	Semester 2

#### Module content

In this module students are introduced to the structure and functions of systems in the human body. The skeletal system and the muscular system receive primary attention. Additionally, students acquire knowledge and skills in management – particularly organizational skills in the sports context.

### Human movement studies and sport management 126 (JMB 126)

<b>Module credits</b>	8.00
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 practicals per week
<b>Language of tuition</b>	Double Medium
<b>Academic organisation</b>	Humanities Education
<b>Period of presentation</b>	Semester 2

#### Module content

Skills and methods for hockey and mini hockey are taught and applied. In athletics the acquisition of skills in various track events receive attention.

### Elective modules

#### Afrikaans 110 (AFR 110)

<b>Module credits</b>	12.00
<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Law Faculty of Health Sciences
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week, 2 discussion classes per week
<b>Language of tuition</b>	Afrikaans
<b>Academic organisation</b>	Afrikaans
<b>Period of presentation</b>	Semester 1





## Module content

*Taalkundekomponent:* Inleiding tot die Afrikaanse taalkunde met klem op lees-en skryfvaardigheid.

*Letterkundekomponent:* Inleiding tot die Afrikaanse en Nederlandse letterkunde aan die hand van kortverhale en gedigte.

## Afrikaans 120 (AFR 120)

**Module credits** 12.00

### Service modules

Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Economic and Management Sciences  
Faculty of Law  
Faculty of Health Sciences

**Prerequisites** No prerequisites.

**Contact time** 2 lectures per week, 2 discussion classes per week

**Language of tuition** Afrikaans

**Academic organisation** Afrikaans

**Period of presentation** Semester 2

## Module content

*Taalkundekomponent:* Inleiding tot die Afrikaanse sintaksis, fonetiek en taalgeskiedenis.

*Letterkundekomponent:* Inleiding tot die Romankuns Inleiding tot die Drama

## German: Cultural-professional (1) 113 (DTS 113)

**Module credits** 12.00

**Service modules** Faculty of Health Sciences

**Prerequisites** Grade 12 German

**Contact time** 2 lectures per week, 1 discussion class per week

**Language of tuition** Double Medium

**Academic organisation** Modern European Languages

**Period of presentation** Semester 1

## Module content

Comprehensive review of German grammar; development of reading, writing, speaking and understanding skills; analysis and interpretation of texts.

## German: Cultural-professional (2) 123 (DTS 123)

**Module credits** 12.00

**Service modules** Faculty of Health Sciences

**Prerequisites** DTS 113

**Contact time** 1 discussion class per week, 2 lectures per week

**Language of tuition** Double Medium

**Academic organisation** Modern European Languages

**Period of presentation** Semester 2

### Module content

Continuation of comprehensive review of German; further development of reading, writing, speaking and understanding skills; analysis and interpretation of texts.

## English 110 (ENG 110)

**Module credits** 12.00

**Service modules** Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Economic and Management Sciences  
Faculty of Law  
Faculty of Health Sciences

**Prerequisites** No prerequisites.

**Contact time** 1 discussion class per week, 2 lectures per week

**Language of tuition** English

**Academic organisation** English

**Period of presentation** Semester 1

### Module content

\*Alternative evening classes - 2 discussion classes per week Introduction to Literature in English (1) This module introduces the study of literature by examining a number of texts representing different genres (poetry, prose, drama). The texts studied here will be mainly from the pre-twentieth century era and may include texts written in English from both Africa and other parts of the world. The aim of this module is to equip students with the critical and analytical skills required for a perceptive reading of poetry, novels and plays.

## English 120 (ENG 120)

**Module credits** 12.00

**Service modules** Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Economic and Management Sciences  
Faculty of Law  
Faculty of Health Sciences

**Prerequisites** No prerequisites.

**Contact time** 1 discussion class per week, 2 lectures per week

**Language of tuition** English

**Academic organisation** English

**Period of presentation** Semester 2



## Module content

\*Alternative evening classes: 2 discussion classes per week

Introduction to Literature in English (2)

This module introduces the study of post-nineteenth century literature by examining a number of texts representing different genres (poetry, drama, prose). Texts will be from both Africa and other parts of the world. By the end of this module students should have the background and analytical skills to perceptively read modern and contemporary poetry, novels and plays.

## French: Cultural-professional (1) 113 (FRN 113)

**Module credits** 12.00

**Service modules** Faculty of Health Sciences

**Prerequisites** Grade 12 French

**Contact time** 1 discussion class per week, 2 lectures per week

**Language of tuition** Double Medium

**Academic organisation** Modern European Languages

**Period of presentation** Semester 1

## Module content

Comprehensive review of French grammar; development of reading, writing, speaking and understanding skills; analysis and interpretation of texts.

## French: Cultural-professional (2) 123 (FRN 123)

**Module credits** 12.00

**Service modules** Faculty of Health Sciences

**Prerequisites** FRN 113

**Contact time** 1 discussion class per week, 2 lectures per week

**Language of tuition** Double Medium

**Academic organisation** Modern European Languages

**Period of presentation** Semester 2

## Module content

Comprehensive review of French grammar; further development of reading, writing, speaking and understanding skills; analysis and interpretation of texts.

## History 110 (GES 110)

**Module credits** 12.00

**Service modules** Faculty of Education  
Faculty of Law  
Faculty of Health Sciences

**Prerequisites** No prerequisites.

<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Both Afr and Eng
<b>Academic organisation</b>	Historical and Heritage Stud
<b>Period of presentation</b>	Semester 1

#### Module content

The making of the Modern World: a survey

A selection of themes on Asia, Africa, the Americas and Europe and their contribution to the making of the Modern World.

### History 120 (GES 120)

<b>Module credits</b>	12.00
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<b>Service modules</b>	Faculty of Education Faculty of Law Faculty of Health Sciences
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<b>Prerequisites</b>	No prerequisites.
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<b>Contact time</b>	2 lectures per week
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<b>Language of tuition</b>	Both Afr and Eng
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<b>Academic organisation</b>	Historical and Heritage Stud
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<b>Period of presentation</b>	Semester 2
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#### Module content

Africa and South Africa: a survey

An overview focusing on the making of African and South African societies from the earliest times to the present with emphasis on the most significant historical forces, factors and events.

### Aspects of human geography 156 (GGY 156)

<b>Module credits</b>	8.00
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<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Health Sciences
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<b>Prerequisites</b>	No prerequisites.
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<b>Contact time</b>	1 tutorial per week, 3 lectures per week
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<b>Language of tuition</b>	English
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<b>Academic organisation</b>	Geography, Geoinf + Meteor
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<b>Period of presentation</b>	Quarter 2
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## Module content

This module begins by fostering an understanding of human geography. Then follows with the political ordering of space; cultural diversity as well as ethnic geography globally and locally; population geography of the world and South Africa: and four economic levels of development. The purpose is to place South Africa in a world setting and to understand the future of the country.

## Southern African geomorphology 166 (GGY 166)

**Module credits** 8.00

**Service modules** Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Humanities  
Faculty of Health Sciences

**Prerequisites** No prerequisites.

**Contact time** 4 lectures per week

**Language of tuition** English

**Academic organisation** Geography, Geoinf + Meteor

**Period of presentation** Quarter 3

## Module content

Investigating southern African landscapes and placing them in a theoretical and global context. The geomorphological evolution of southern Africa. Introduction to the concepts of Geomorphology and its relationships with other physical sciences (e.g. meteorology, climatology, geology, hydrology and biology). The processes and controls of landform and landscape evolution. Tutorial exercises cover basic techniques of geomorphological analysis, and topical issues in Geomorphology.

## Psychology 110 (SLK 110)

**Module credits** 12.00

**Service modules** Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Health Sciences  
Faculty of Natural and Agricultural Sciences

**Prerequisites** No prerequisites.

**Contact time** 2 discussion classes per week, 2 lectures per week

**Language of tuition** Both Afr and Eng

**Academic organisation** Psychology

**Period of presentation** Semester 1

## Module content

This module is a general orientation to Psychology. An introduction is given to various theoretical approaches in Psychology, and the development of Psychology as a science is discussed. Selected themes from everyday life are explored and integrated with psychological principles. This module focuses on major personality theories. An introduction is given to various paradigmatic approaches in Psychology.

## Psychology 120 (SLK 120)

**Module credits** 12.00

**Service modules** Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Health Sciences  
Faculty of Natural and Agricultural Sciences

**Prerequisites** No prerequisites.

**Contact time** 2 lectures per week, 2 discussion classes per week

**Language of tuition** Both Afr and Eng

**Academic organisation** Psychology

**Period of presentation** Semester 2

### Module content

This module introduces the student to a basic knowledge and understanding of the biological basis of human behaviour. The module addresses the key concepts and terminology related to the biological subsystem, the rules and principles guiding biological psychology, and identification of the interrelatedness of different biological systems and subsystems. In this module various cognitive processes are studied, including perception, memory, thinking, intelligence and creativity. Illustrations are given of various thinking processes, such as problem solving, critical, analytic and integrative thinking.

## Precalculus 133 (WTW 133)

**Module credits** 8.00

**Service modules** Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Economic and Management Sciences  
Faculty of Health Sciences

**Prerequisites** BSc and BCom students: At least 3 (40-49%) in Mathematics in the Grade 12 examination and must be taken concurrently with WTW133

**Contact time** 3 lectures per week, Foundation Course, MAMELODI, 1 practical per week

**Language of tuition** English

**Academic organisation** Mathematics and Applied Maths

**Period of presentation** Semester 1

## Module content

Real numbers, elementary set notation, exponents and radicals. Algebraic expressions, fractional expressions, linear and quadratic equations, inequalities. Coordinate geometry: lines, circles. Functions: definition, notation, piecewise defined functions, domain and range, graphs, transformations of functions, symmetry, even and odd functions, combining functions, one-to-one functions and inverses, polynomial functions and zeros.

Sequences, summation notation, arithmetic, geometric sequences, infinite geometric series, annuities and instalments. Degrees and radians, unit circle, trigonometric functions, fundamental identities, trigonometric graphs, trigonometric identities, double-angle, half-angle formulae, trigonometric equations, applications.

This module is only offered in English at the Mamelodi Campus for the BSc Extended programme. At the Hatfield and Groenkloof campuses it is offered in English and Afrikaans.

## Calculus 143 (WTW 143)

**Module credits** 8.00

<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Health Sciences
<b>Prerequisites</b>	BSc and BCom students: WTW 133 and WST133 and must be taken concurrently with WTW143
<b>Contact time</b>	Foundation Course, MAMELODI, 1 tutorial per week, 3 lectures per week
<b>Language of tuition</b>	English
<b>Academic organisation</b>	Mathematics and Applied Maths
<b>Period of presentation</b>	Semester 2

## Module content

Functions: exponential and logarithmic functions, natural exponential and logarithmic functions, exponential and logarithmic laws, exponential and logarithmic equations, compound interest. Limits: concept of a limit, finding limits numerically and graphically, finding limits algebraically, limit laws without proofs, squeeze theorem without proof, one-sided limits, infinite limits, limits at infinity, vertical, horizontal and slant asymptotes, substitution rule, continuity, laws for continuity without proofs. Differentiation: average and instantaneous change, definition of derivative, differentiation rules without proofs, derivatives of polynomials, chain rule for differentiation, derivatives of trigonometric, exponential and logarithmic functions, applications of differentiation: extreme values, critical numbers, monotone functions, first derivative test, optimisation.

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