



Edith Cowan University

Bachelor of Science (Exercise & Sports Science)

ShanghaiRanking 2017
Global Ranking of Sports Science Schools

No. 19



Cert No. : EDU-2-2100
Validity : 07/06/2017 - 06/06/2021



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RCB No: 200305869C Exp: 13 July 2018 – 12 July 2022

ECU Bachelor of Science (Exercise & Sports Science)

DESCRIPTION

Students who study the Exercise & Sports Science degree in the School of Medical and Health Sciences specialise in the design, implementation and evaluation of exercise and physical activity for healthy people. They provide programs for improving general health, prevention of chronic diseases, health promotion, and enhanced sports performance.

The Course prepares students for a variety of professional roles in the corporate and government sectors where high levels of competence are required in the area of exercise and sports science.

COURSE LEARNING OBJECTIVES

1. Apply broad discipline knowledge to a range of exercise and sport science theoretical and practical situations.
2. Communicate exercise and sport science knowledge, concepts and skills to a variety of populations.
3. Demonstrate a global outlook in exercise and sport science situations, showing sensitivity for diversity.
4. Demonstrate appropriate social and ethical values by working cooperatively and collaboratively in exercise and sports science settings.
5. Demonstrate autonomy, accountability and initiative for own learning and professional practice.
6. Think creatively to anticipate challenges and generate solutions in exercise and sport science contexts.
7. Think critically to analyse, interpret and solve complex exercise and sport science situations.
8. Use digital technologies and literacies to assess, evaluate and synthesise information from multiple sources.

JOB PROSPECTS

The following is an indicative list of the potential job role(s) for this qualification:

- Exercise Physiologist
- Exercise Scientist
- Biomechanist
- Personal Trainer
- Sports Coach
- Sports & Exercise Scientist
- Researcher
- Strength & Conditioning Coach
- Sports Medicine Trainer
- Exercise Rehabilitation Coach

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ENTRY REQUIREMENTS

Age	Minimum 18 years old
Academic qualification	<ul style="list-style-type: none"> A Level aggregated score of 5 or more, from minimum 2 and maximum 3 A Level subjects (A=5, B=4, C=3, D=2, E=1); or Recognised Polytechnic diploma; or Relevant diploma issued by the United States Sports Academy; or Australian Qualification Framework Certificate IV or above; or Pearson BTEC Level 4 HNC Diploma
English language proficiency	<ul style="list-style-type: none"> O Level Pass in English at C6 and above; or IELTS 6.0 and above

INTAKES

Intakes are in February and October each year. Please contact ISA for specific intake dates.

COURSE DURATION

Full-time / part-time	24 months	3 – 5 days a week	3 hours a day
Total hours	1,200		

The number of hours listed above are subject to change. To be awarded the Bachelor of Science (Exercise & Sports Science), students must successfully complete all requirements for the course, attain the required number of credit points or units of competency required, and fulfil the requisite number of hours.

PATHWAYS

Students who have previously completed a diploma at ISA or at one of Singapore's polytechnics, may be eligible for advanced standing, which will reduce the number of units students will need to complete to be awarded the ECU qualification. Please speak to our staff to see if you are eligible for advanced standing.

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RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) is a process where a candidate may be granted credit or partial credit towards a qualification in recognition of skills and knowledge gained through work experience and/or formal training. For additional information relating to RPL for this course, please contact our admissions team.

DELIVERY METHODS

The course will be delivered face-to-face on campus through lectures and tutorials. Lecturers from Edith Cowan University in Australia will be flown in to conduct lectures.

ASSESSMENT METHODS

Assessment methods can include one or more of the following:

- Written examinations
- Presentations
- Assignments

HOW TO ENROLL

Contact ISA at 6423 0668 or info@isa.edu.sg.

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COURSE OUTLINE

Total number of modules = 24

- 18 compulsory core modules
- 6 minor modules

COMPULSORY CORE MODULES	
Unit Code	Unit Title
EBH1101	Human Anatomy
EBH1102	Human Physiology
SPS1108	Foundations of Social Psychology
SPS1114	Acquisition of Skill
SPS1111	Foundations of Fitness and Training
SPS1116	Biomechanics and Functional Anatomy
NUT1121	Human Nutrition
SPS2116	Applied Biomechanics
SPS2203	Principles and Practices of Resistance Training
SPS2201	Physiology of Exercise 1 (Cardiorespiratory)
MAT2107	Statistical Research Methods
SPS2112	Motor Control
SPS2301	Exercise Rehabilitation
SPS1107	Sports Science Applications 1
SPS3111	Physical Activity and Health
SPS3112	Exercise and Sports Science Practicum
SPS3101	Psychology of Sport and Exercise
SPS3301	Physiology of Exercise 2 (Applied Physiology)
MINOR UNITS	
SPS3120	Psycho-social Aspects in Physical Activity and Chronic Disease
HST1152	Introduction to Occupational Health and Safety
NUT3215	Exercise Nutrition
HST1120	Introduction to Health Promotion
SPS1210	Performance Analysis and Player Monitoring in Sport
SPS3203	Human Movement and Disability

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UNIT DESCRIPTIONS

EBH1101 Human Anatomy

An introduction to the structure of the human musculo-skeletal and peripheral nervous systems as a foundation for assessing the impact of damage that result in impaired function in daily activities.

EBH1102 Human Physiology

This unit covers the structure and function of organs and systems within the human body. It examines physiology of immune, endocrine, cardiovascular, respiratory, digestive and excretory systems. The relationships between structure and function of each system and the roles of homeostasis in physiological adaptation in the maintenance of health are examined.

SPS 1108 Foundations of Social Psychology

This unit introduces foundation concepts of social psychology that serve for advanced studies in sociology and psychology of exercise, health, and wellness. Students will study theories in psychology, sociology, and psychobiology that are important to later understanding of exercise as a vehicle for human enrichment and performance enhancement across the lifespan.

SPS1114 Acquisition of Skill

This unit introduces students to some of the primary concepts of motor learning and motor development across the lifespan. Students will explore motor skill classification, measurement of motor performance, performance characteristics of motor skills, attention and memory, and best practices for skill learning.

SPS1111 Foundations of Fitness and Training

This unit focuses on two aspects of exercise prescription. Both the basic principles of exercise programming and the competencies required in fitness appraisal will be conducted in a lecture and laboratory series. Additionally, the unit will give the student an understanding of the provision of first aid in sports programs, including an appreciation of the concepts underlying the management of injured athletes.

SPS1116 Biomechanics and Functional Anatomy

This unit introduces students to the major biomechanical factors that underpin human movement, with a special focus on locomotion, sports technique, and injury prevention. Additionally, each region of the body will be examined from a functional perspective in order to understand how movements are performed, how errors in function can lead to injury or damage and how movement optimisation can improve physical performance or minimise injury risk.

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NUT1121 Human Nutrition

This unit sets the nutrient foundation for the study of food and its effects on human health. Each of the known nutrients and their biological pathways in digestion, absorption and metabolism is examined. Food energy and energy expenditure form a basis for the study of individual dietary patterns and the application of a nutrient analysis software package. Group intakes of nutrients are analysed in relation to national dietary recommendations.

SPS2116 Applied Biomechanics

This unit is designed to explore the applications and implications of the physical principles underlying efficient human movement. The unit investigates methods of quantifying human motion and examines aspects of muscle mechanics relevant to sports performance and injury prevention.

SPS2203 Principles and Practices of Resistance Training

This unit examines the structure and function of skeletal muscle. The primary focus is on the design and implementation of resistance training programs for improvements in sports performance and general health. Methods of developing muscular hypertrophy, strength, power and endurance are covered in lecture sessions and practical laboratories. On completion of this unit students will demonstrate competency in the design and instruction of resistance training programs. Students will plan and participate in supervised industry practice in an exercise and sport related industry.

SPS2201 Physiology of Exercise 1 (Cardiorespiratory)

This unit specifically studies the physiological function of the respiratory and cardiovascular system. Both structure and function are covered with specific emphasis on how the cardiorespiratory system adjusts to meet the demands of aerobic exercise, both at sea level and at altitude. Cardiovascular and respiratory disease, associated risk factors and exercise rehabilitation are also examined.

MAT2107 Statistical Research Methods

This unit is designed to introduce students to the principles of statistical research methodology used within the field of Exercise and Sports Science. It will provide a brief introduction to statistics, sampling and survey design, and technical research reporting. The statistical software SPSS will be used where appropriate.

SPS2112 Motor Control

This unit examines the role of the neuromuscular system in sensory and motor aspects of motor control. Using current theory and research, skilled movement will be analysed using both an information processing model and as a dynamical system.

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SPS2301 Exercise Rehabilitation

This unit demonstrates how anatomical and physiological concepts associated with Sport and Exercise Science are used in rehabilitating individuals with specific injuries or illnesses. The unit focuses on the physical capacities of muscular strength and endurance, flexibility and cardiorespiratory endurance as they affect the ability to carry out daily work, sporting and recreational activities.

SPS1107 Sports Science Applications 1

This unit comprises selected theoretical and practical skills related to group exercise and sports massage. Students will learn how to design and implement group exercise programs for different fitness levels in a variety of contexts and fitness modalities. Students will learn how to effectively administer sports massage with the goal of assisting sports performance and recovery of injuries.

SPS3111 Physical Activity and Health

This unit focuses on a wellness approach to maximising health through lifestyle education and skills to address such factors as physical activity, nutrition, chronic disease risk, and weight control. Considerable emphasis will be placed upon the role of specific modes of physical activity in the prevention of disease.

SPS3112 Exercise and Sports Science Practicum

This unit provides students with a structured and supervised vocational experience, where they have the opportunity to experience first-hand the reality of the workplace. Students will undertake 140 hours of industry practice utilising the skills and knowledge gained from their Exercise and Sports Science course. This unit will enhance their understanding of future career opportunities in their chosen field.

SPS3101 Psychology of Sport and Exercise

This unit provides the opportunity to gain an understanding of the principles and application of sport and exercise psychology. It will assist students in enhancing the peak performance and coping strategies of athletes. The knowledge gained will also be applied to the promotion of exercise adherence to the wider population.

SPS3301 Physiology of Exercise 2 (Applied Physiology)

This unit examines the function and adaptability of the different metabolic energy systems involved in physical activity, with special emphasis on their role in improving performance with training and recovery. In addition, environmental factors (altitude and thermal physiology), ergogenic aids and overtraining are covered within the context of their effects on human performance.

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SPS3120 Psycho-social Aspects in Physical Activity and Chronic Disease

This unit provides the opportunity for students to develop a fundamental understanding of the psychological and social aspects of physical activity and chronic disease. The knowledge gained will assist students in enhancing the promotion and maintenance of physical activity and psychological and social well-being within a variety of settings (such as rehabilitation and clinical setting) and various populations (such as individual, group, community).

HST1152 Introduction to Occupational Health and Safety

All employees are potentially exposed to occupational health and safety risks in the workplace. In this unit, students will be introduced to a range of occupational health and safety (OHS) issues and how they can be mitigated. Students are encouraged to develop the skills and knowledge needed to make workplaces safer and healthier. Occupational health and safety will be investigated from a national and international perspective by exploring safety and health in a variety of global industries.

NUT3215 Exercise Nutrition

This unit examines current nutrition theories and research in relation to exercise, fitness and sporting endeavours. The metabolic pathways of the energy yielding nutrients and their manipulation through dietary intake are explored together with emerging concepts of human bioenergetics. The physiological and pharmacological actions of nutrients and nutrient-like supplements are examined under the rubric of evidence-based outcomes in exercise and sport.

HST1120 Introduction to Health Promotion

This unit introduces the philosophical basis and current frameworks for health promotion. The unit is designed to develop students' understanding of the need for health promotion actions to combine an evidence-based approach with creative insights, in order to meet the needs of diverse population groups in different social contexts.

SPS1210 Performance Analysis and Player Monitoring in Sport

This unit focuses on performance analysis and player monitoring in sport. Methods of notational analysis will be covered and students will gain knowledge in how to develop a system for different sports. Motion analysis during training and competition will be addressed and students will undertake practical sessions in the use of video and electronic tracking of players. The unit also explores monitoring of players using psychobiological and various methods of heart rate analysis.

SPS3203 Human Movement and Disability

This unit focuses on physical activity for children and adults with disabilities. It is designed to ensure an understanding of the special needs associated with the development of motor control and the adaptations necessary to ensure access to a physically active lifestyle. Students will be introduced to the motor control and learning problems faced by people with a range of physical, mental and emotional disabilities. Students also gain knowledge and understanding of social-psychological issues associated with disability and movement through the contexts of play, games, and sport.

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FEES (FEBRUARY 2019 INTAKE)

LOCAL STUDENTS	
Fees Breakdown	Amount incl. 7% GST (\$\$)
Application fees (non-refundable)	190.50
Fee Protection Scheme (FPS)	1,198.97
Course fees	59,948.30*
No. of instalments	6
Instalment amount	Approx. 9,991.38
Total fees payable incl. application fees and FPS	61,337.76

INTERNATIONAL STUDENTS	
Fees Breakdown	Amount incl. 7% GST (\$\$)
Application fees (non-refundable)	345.50
Fee Protection Scheme (FPS)	1,198.97
Medical insurance (compulsory)	96.30
Course fees	59,948.30*
No. of instalments	6
Instalment amount	Approx. 9,991.38
Total fees payable incl. application, FPS & insurance fees	61,589.06

*Students who qualify for advanced standing will have reduced course fees, e.g. students with 6 unit exemptions will pay approx. \$44,380.21 not incl. application fees and FPS.

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MISCELLANEOUS FEES	
Purpose of Fees	Amount incl. 7% GST (S\$)
Deferment fees	235.40
Re-module fees (per unit)	Approx. 2,500.00
Penalty for late payment (per week of late payment)	10.70
Printing cost per sheet	0.20
Replacement of student ID	21.40
Medical insurance (if applicable)	96.30
ISA T-shirt	30.00

Miscellaneous fees are for both local and international students and refer to any optional fees which students pay only where applicable.

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ABOUT ISA

The International Sports Academy (ISA) was officially opened in 2003 and has been appointed as the sole partner in Singapore by the United States Sports Academy (USSA), to provide quality academic sports certifications and diplomas. The ISA was founded in order to meet the growing need for sports education in Singapore. With the growing interest in sports to promote a healthier lifestyle and a means of social cohesion, the sporting industry has grown substantially over the past years. The ISA provides the much needed knowledge and skills required to empower individuals with the right tools to achieve success in the sporting industry today.

Our Mission

Preparing the next generation of sports leaders for the industry of tomorrow.

Our Vision

To become the region's leader in sports education, providing the tools to empower individuals with both knowledge and skills required to achieve success in the sporting world.

Our Values

PASSION | PURPOSE | PROGRESS

Our Culture

An environment where our passion for sports meets the love of learning. Where success is not quantified by just the end result, but rather by the calibre of the pursuit.

- Appointed Education Partner and Approved Provider in Singapore by the American Council on Exercise (ACE).
- Endorsed by leading industry employers such as Virgin Active, True Fitness, the Pure Group, Triple Fit, among others.
- Conferred EduTrust (4-Year) Award by the Committee for Private Education for maintaining high standards in providing quality education services.
- Named Most Preferred Private Education Institute for Diploma/Advanced Diploma (Sports and Recreation) by JobsCentral Learning Survey.
- Provides early industry exposure and job placement assistance through extensive industry network.
- Offers continuing education courses for increasing skill sets.



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