



Program

# Exercise Physiology

3871 | 192 Units of Credit

## Overview

The program offers a comprehensive education in the area of health and exercise science with a focus on the use of physical activity as a preventative and rehabilitative therapy. Four years of full-time study leads to the award of a Bachelor of Exercise Physiology. A total of 192 units of credit must be successfully completed for the award of this degree. Graduates may expect to find employment as Accredited Exercise Physiologists (AEP) in rehabilitation clinics and hospitals working in post-acute rehabilitation, sports medicine clinics, corporate health, specialised fitness centres, and private practice for rehabilitation/exercise prescription for people requiring specialist guidance (e.g. workplace rehabilitation). The Bachelor of Exercise Physiology is accredited by the national governing body, Exercise and Sports Science Australia (ESSA). Graduates are eligible to become members of ESSA and practice as Accredited Exercise Physiologists and Accredited Exercise Scientists.

## Program Structure

Foundation science courses are an important component of the early stages of the program and include chemistry, molecular and cellular biology, biochemistry, statistics and psychology. Building on this knowledge base, the medical sciences of anatomy, physiology, pathology and pharmacology are studied concurrently with the exercise science sub-disciplines of biomechanics, motor control and exercise psychology - leading to an integrated understanding of human function in health and disease and how this is impacted by exercise. The professional role of Exercise Physiologists is emphasised from the commencement of the program in Stage 1 exercise science courses. Clinical courses in Stage 3 cover the four broad areas of practice for Exercise Physiologists being, 1) the primary prevention of disease in apparently healthy populations, 2) the management of chronic diseases under the broad categories of cardiopulmonary and metabolic conditions, 3) musculoskeletal conditions and work hardening and 4) neuromuscular conditions. Courses offer a

mixture of traditional and interactive/case study approaches to learning.

Students are required to complete a minimum of 12 UOC of research courses in their final year. The majority of students achieve this through enrolment in HESC4501 Exercise Physiology Research Seminars and then HESC4551 Research Project. However, students can opt to take an additional 6 UOC of research by enrolling in a supervised research internship. Selection of this additional research component improves student eligibility and preparedness for entry into higher degree research programs (e.g. Masters by Research; PhD). Students who choose to take a total of 18 UOC of 4th year research can take HESC4501 Exercise Physiology Research Seminars, then HESC4561 Research Internship A followed by HESC4571 Research Internship B. Enrolment in HESC4561 and HESC4571 will constitute the first and second halves, respectively, of a 20-week supervised research internship.

Students are required to take one elective course (6 UOC) throughout their program. This allows students to select a course according to their areas of interest and career specialisation. These may include: a research internship, or coursework focusing on cardiopulmonary conditions, metabolic conditions, musculoskeletal conditions, neuromuscular conditions, nutrition, mental health, and rehabilitation biomechanics. Specific elective courses available are listed below under Electives.

General Education is a requirement of all undergraduate programs at UNSW Sydney. Elective and General Education courses in Stage 4 provide flexibility to facilitate international exchange in the latter stage of the program, while still completing the core courses and practicum required to be eligible to become an Accredited Exercise Physiologist.



**Faculty**

Faculty of Medicine

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**Campus**

Kensington

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**Study Level**

Undergraduate

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**Typical duration**

4 Years

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**Delivery Mode**

Face-to-face

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**Intake Period**

Term 1

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**Academic Calendar**

3+ Calendar

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**Minimum Units of Credit**

192

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**Award type**

Bachelors Honours

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**Award(s)**

Bachelor of Exercise Physiology -

**BExPhys**

Bachelor of Exercise Physiology -

**BExPhys**

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**UAC Code**

428100

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**CRICOS Code**

068784A

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## Learning Outcomes

1. Students will be able to demonstrate detailed clinical knowledge and skills relevant to cardiopulmonary, metabolic, cancer, mental health, musculoskeletal and neuromuscular rehabilitation.

Scholars

Professionals

2. Students will be able to engage in independent learning and reflective practice for the betterment of professional clinical practice.

Professionals

Scholars

3. Students will be able to conduct a broad range of exercise-based clinical tests and deliver lifestyle change programs that use exercise for the primary prevention of disease and the management of chronic disease.

Professionals

Leaders

Scholars

Global Citizens

4. Students will be able to apply advanced problem-solving skills and critical thinking within a scientific and clinical context.

Global Citizens

Leaders

Professionals

Scholars

5. Students will be able to describe the relationship between physical activity and health and the implications of this relationship throughout the human lifespan.

Professionals

Scholars

6. Students will be able to display effective and appropriate communication skills and an ability to work as a member and leader of a team, with respect for diversity and a high standard of ethical practice.

Leaders

Global Citizens

Professionals

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## Graduate Capabilities:

For more information on Graduate Capabilities, please click on this [link](#).

# Program Structure

Students must complete 192 UOC as a standalone program.

## Level 1 Core Courses

Students must take 42 UOC of the following courses.

ANAT2111 | 6 UOC

Introductory Anatomy

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BABS1201 | 6 UOC

Molecules, Cells and Genes

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CHEM1831 | 6 UOC

Chemistry for Exercise Physiology

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HESC1501 | 6 UOC

Introductory Exercise Science

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HESC1511 | 6 UOC

Exercise Programs and Behaviour

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MATH1041 | 6 UOC

Statistics for Life and Social Sciences

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PSYC1001 | 6 UOC

Psychology 1A

## Level 2 Core Courses

Students must take 48 UOC of the following courses.

ANAT2451 | 6 UOC

Functional Anatomy for Health and Exercise Science

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BIOC2181 | 6 UOC

## Fundamentals of Biochemistry

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BIOM2451 | 6 UOC

Biomechanics for Sports Scientists

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HESC2452 | 6 UOC

Movement Assessment and Instruction

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HESC2501 | 6 UOC

Exercise Physiology

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PATH2202 | 6 UOC

Processes in Disease for Health and Exercise Science

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PHSL2501 | 6 UOC

Human Physiology A

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PHSL2502 | 6 UOC

Human Physiology B

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### **Level 3 Core Courses**

Students must take 48 UOC of the following courses.

HESC3501 | 6 UOC

Advanced Exercise Science

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HESC3504 | 6 UOC

Physical Activity and Health

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HESC3511 | 6 UOC

Health, Exercise and Sport Psychology

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HESC3532 | 6 UOC

Movement Rehabilitation



HESC3541 | 6 UOC

Clinical Exercise Physiology

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HESC3592 | 6 UOC

Neuromuscular Rehabilitation

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NEUR3101 | 6 UOC

Muscle and Motor Control

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PHAR3111 | 6 UOC

Clinical Pharmacology for Health and Exercise Science

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### **Level 4 Core Courses**

Students must take 36 UOC of the following courses.

HESC3581 | 6 UOC

Physical Activity in Special Populations

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HESC4501 | 6 UOC

Exercise Physiology Research Seminars

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HESC4502 | 6 UOC

Workplace Assessment and Rehabilitation

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HESC4611 | 6 UOC

Clinical Practicum A

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HESC4622 | 6 UOC

Clinical Practicum B

One of the following:

HESC4551 | 6 UOC

Research Project

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HESC4561 | 6 UOC

Research Internship A

For entry into the 20-week 4th year research internship, a minimum program WAM of 65 is required.

## **Electives**

Students must complete one 6 UOC elective course. The following courses are recommended,

ANAT3121 | 6 UOC  
Visceral Anatomy

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ANAT3411 | 6 UOC  
Neuroanatomy

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BEIL0011 | 6 UOC  
Healthy Planning

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BIOC2291 | 6 UOC  
Fundamentals of Molecular Biology

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BIOC3261 | 6 UOC  
Human Biochemistry

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BIOM9551 | 6 UOC  
Biomechanics of Physical Rehabilitation

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FOOD3220 | 6 UOC  
Nutrition

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FOOD4403 | 6 UOC  
Advanced Nutrition

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HESC3641 | 6 UOC  
Advanced Exercise Physiology

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HESC4571 | 6 UOC

Research Internship B

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MATH1031 | 6 UOC

Mathematics for Life Sciences

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MATH1131 | 6 UOC

Mathematics 1A

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NEUR3221 | 6 UOC

Neurophysiology

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PATH3207 | 6 UOC

Musculoskeletal Diseases

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PHSL3211 | 6 UOC

Cardiovascular Physiology and Pathophysiology

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PHSL3221 | 6 UOC

Endocrine, Reproductive and Developmental Physiology

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PHYS1121 | 6 UOC

Physics 1A

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PSYC1022 | 6 UOC

The Psychology of Addiction

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PSYC1023 | 6 UOC

Abnormal Psychology

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PSYC1024 | 6 UOC

Clinical Perspectives on Anxiety, Mood and Stress

## **General Education**

Students must take at least 12 UOC of the following courses.

any General Education course

## Maximum Level 1 UOC

Students may only undertake a maximum of 60 UOC of the following courses.

any level 1 course

## Clinical Practicum Maturity Requirements

Clinical Practicum courses may not normally be commenced until a student has completed each of the Stage 3 clinical courses, HESC3501, HESC3511, HESC3504, HESC3541, HESC3532, HESC3592, unless approval is granted by the program authority.

A Senior First Aid and CPR Certificate must be obtained before commencing HESC4611 Clinical Practicum A and must be valid for the duration of the clinical practicum courses. A Criminal Record Check and Working with Children Check are also required before commencing the clinical practicum. Up-to-date immunisations are a requirement of many clinical placement providers and any such requirements must be met prior to commencing HESC4611 Clinical Practicum A.

HESC4611 and HESC4622 are offered in Term 1, Term 2 or Term 3 and are completed in consecutive semesters.

HESC4611 | 6 UOC  
Clinical Practicum A

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HESC4622 | 6 UOC  
Clinical Practicum B

## Level 4 Research Course UOC

Students must complete a minimum of 12 UOC of Level 4 research courses, this must include HESC4501 Exercise Physiology Research Seminars (6 UOC).

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## Enrolment Disclaimer

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW

enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.

# Program Requirements

## Participation and Enrolment Requirements

### Criminal Records Check

NSW Health require that all Exercise Physiology students placed in any of their facilities have a police record check (national or from your country of citizenship), and a code of conduct agreement.

### Medical Assessment

NSW Health require that all Exercise Physiology students placed in any of their facilities are compliant with their health and conduct requirements, these include maintaining an up to date certification in Senior First Aid and CPR Certificate and an up-to-date immunisation record for the duration of a clinical practicum placement.

### Working with Children

Students must also obtain a Working with Children Check number prior to the commencement of a clinical practicum placement.

### Progression Requirements

Students may remain enrolled in the Exercise Physiology program in accordance with UNSW Academic Standing rules, UNSW Code of Conduct requirements, and UNSW Academic Progression rules which specify that the maximum time to complete the Exercise Physiology Program is 10 years, based on the "2n+2 years" rule, where "n" equals the normal full-time duration of the program in years.

For more information on university policy on progression requirements please visit [Academic Progression](#).

### Internships and Placements

Clinical practicum is a major component of the Exercise Physiology program with a minimum of 100 hours completed across Stages 1 to 3 (as an element of course work) and 400 hours in dedicated courses in Stage 4, totaling 500 hours across the program. In Stage 4, students are required to complete a minimum of 200 hours of practical experience for both clinical practicum A (HESC4611) and B (HESC4622), totaling 400 hours in Stage 4. Students are required to be in attendance at clinical placements for the entire 200 hours for each course (preparation time is in addition to these hours). The 400 hours completed across HESC4611 Clinical Practicum A and HESC4622 Clinical Practicum B, involve four separate placements (two placements for each course) of approximately 100 hours each.

# Pathways

## Honours Programs

### Bachelor of Science (Honours) - **BSc(Hons)** **4500 Science (Honours)**

Faculty: Faculty of Science

Campus: Kensington

Units of Credit: 48

Typical Duration: 1 Years

[Read More](#)

## Post Graduate

### Doctor of Philosophy - **PhD** **1790 Physiology and Pharmacology**

Faculty: Faculty of Medicine

Campus: Kensington

Units of Credit: 144

Typical Duration: 3 to 4 Years

[Read More](#)

### Master of Science - **MSc** **2850 Physiology and Pharmacology**

Faculty: Faculty of Medicine

Campus: Kensington

Units of Credit: 96

Typical Duration: 2 Years

[Read More](#)

# **Professional Outcomes**

## **Accreditations**

Professional institutes that offer accreditation on completion of this program:

- Exercise and Sports Science Australia

Graduates are eligible for accreditation as Exercise Physiologist and for membership of Exercise & Sports Science Australia (ESSA) (2013 - 2017).

## **Professional Recognition**

Graduates are eligible to become members of ESSA and practice as Accredited Exercise Physiologists.

## **Career Opportunities**

Health Professionals, Health Therapy Professionals



# **Recognition of Achievement**

## **University Medal**

The University Medal is awarded to recognise outstanding academic performance by a bachelor degree student in line with the University Medal Policy and University Medal Procedure.

## **Additional Information**

NSW Health require all students to complete mandatory online training modules when commencing a clinical practicum placement. Students who fail to satisfy the compliance requirements of NSW Health may be excluded from undertaking a clinical practicum placement. Students are responsible for obtaining the required documents and vaccinations needed to meet compliance requirements and to attend compliance checks for verification.

## **Program Fees**

At UNSW fees are generally charged at course level and therefore dependent upon individual enrolment and other factors such as student's residency status. For generic information on fees and additional expenses of UNSW programs, click on one of the following:

[Domestic Students](#)

[Commonwealth Supported Students](#)

[International Students](#)

### **Additional Expenses**

Students need to undergo clinical compliance checks in order to enter clinical placements in public or private clinical settings in their final year. Compliance checks require each student to obtain the following: a Senior First Aid and CPR Certificate, a Criminal Record Check and Working With Children Check, and up-to-date immunisations. Expenses to the student will be incurred in obtaining these.

## **Pre-2019 Handbook Editions**

Access past handbook editions (2018 and prior)

[Pre-2019 Handbook Editions](#)

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Authorised by Deputy Vice-Chancellor (Academic)

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