

POSTGRADUATE

COURSE GUIDE 2018

EXERCISE SCIENCE





Professor Michelle Campbell, Executive Dean, Faculty of Health Sciences

EXECUTIVE DEAN'S

WELCOME

THE FACULTY OF HEALTH SCIENCES CONTINUES TO UNDERGO DYNAMIC CHANGE, POSITIONING ITSELF AS A LEADING TEACHING AND RESEARCH FACULTY. ITS COURSES ARE DEVELOPED AND DELIVERED WITHIN THE CATHOLIC INTELLECTUAL TRADITION — WITH THE GOAL OF PREPARING PROFESSIONALS WITH A LIFELONG COMMITMENT TO SOCIAL JUSTICE, EQUITY AND SUSTAINABILITY.

The faculty offers postgraduate programs by coursework and by research for professionals in clinical exercise physiology, clinical education and practice (in nursing), counselling, health administration, high performance sport, mental health (with a specialisation in nursing), paramedicine, psychology, public health, rehabilitation (with specialisations in gerontological physiotherapy, neurological physiotherapy, occupational therapy, and speech pathology), simulation education, and social work.

We conduct research that makes a difference. Whether it be award-winning stroke studies, or investigations into how the world population will find food in the future, ACU research aims to improve social, health and living conditions, influence public policy, and improve our knowledge in specialist fields.

As part of a research intensification program, the University has established three research institutes focusing on health sciences – the Mary MacKillop Institute for Health Research, the Institute for Positive Psychology and Education, and the Institute for Health and Ageing. The program drives excellence in research for the benefit of our students, our communities, and the world. This rich research culture informs our teaching and connects our staff with experts across the globe. In the latest Excellence in Research for Australia (ERA) assessment, ACU received the top score of five in human movement and sports science, nursing, public health and health services, and psychology.

If you are considering postgraduate study at ACU, I urge you to read on. The Faculty of Health Sciences provides an exciting and dynamic environment in which to pursue further study. I am confident you will find your studies with us a rewarding experience.

Professor Michelle Campbell
Executive Dean, Faculty of Health Sciences

VISIT OUR WEBSITE

For in-depth course information, including fees, scholarships, support services and campus information. Visit acu.edu.au/postgraduate

GOT A QUESTION?

acu.edu.au/askacu

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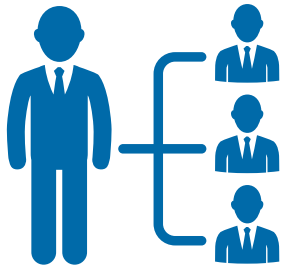


ACU students and staff, Strathfield Campus



TOP FIVE REASONS

TO STUDY EXERCISE SCIENCE AT ACU



01

THE BEST PEOPLE

We give you the chance to learn from world-leading academics and researchers. Our staff have secured millions of dollars in research funding and are internationally recognised for their work.

02

FLEXIBLE STUDY

ACU offers a range of course delivery options. We keep it flexible by using cutting-edge interactive technologies for online delivery wherever you are in the world so you can manage your work, study, and family commitments.

03

PERSONAL ATTENTION

You'll work closely with your lecturers, tutors or supervisors, and get the attention you need to excel. We make an effort to understand what matters most to you, so we can help guide you on your career path.



04

WORLD CLASS RESEARCH

ACU is ramping up its research. We launched seven research institutes overall, with impressive results. Our research in the area of human movement and sport science is rated well above world standard.



05

SPECIALIST FACILITIES

State-of-the-art facilities include anatomy wet and dry laboratories, health simulation centres, specialist clinics, fully equipped gyms, and exercise science labs.

acu.edu.au/askacu



"The clinical exercise physiology degree requires 500 clinical hours across a range of conditions. Because of ACU's connections, I got to experience community health as well as private and hospital health, which set me up for my current job. Helping clients increase their independence and quality of life and empowering them is why I love my job."

JESSICA HANSSON

MASTER OF CLINICAL EXERCISE PHYSIOLOGY
EXERCISE PHYSIOLOGIST, SPINAL CORD INJURIES AUSTRALIA

STUDY MODES

AND LOCATIONS

STUDY MODE IS THE WAY IN WHICH A COURSE OR UNIT IS DELIVERED.

ACU OFFERS A NUMBER OF FLEXIBLE DELIVERY OPTIONS TO SUIT YOUR FAMILY AND WORK COMMITMENTS.

FOR FURTHER CLARIFICATION OF THE STUDY MODE YOUR COURSE WILL BE DELIVERED IN, CONTACT ASKACU AT ACU.EDU.AU/ASKACU

FULL-TIME

A full-time student is one who undertakes a load of at least 0.75 EFTSL. For example, in a course with the standard annual credit point load of 80 credit points, to be enrolled full-time a student must undertake at least 30 credit points per semester.

PART-TIME

A part-time student is one who undertakes a load of less than 0.75 EFTSL. For example, in a course with the standard annual credit point load of 80 credit points, a part-time student would undertake less than 30 credit points per semester.

ONSHORE

Delivered at an ACU campus.

OFF-CAMPUS

Delivered at another location.

OFFSHORE

Delivered at an overseas location.

ONLINE

Delivered fully online including assessments.

ATTENDANCE

Primarily attendance, either face-to-face or via video conference, at an ACU campus or another location.

MULTI-MODE

Some online with a compulsory attendance component (including examinations etc).

INTENSIVE

Units are delivered in a block over consecutive weekdays and/or weekends.



ACU students, Brisbane Campus

POSTGRADUATE

STUDY OPTIONS



(Top) High performance sport students, Melbourne Campus,
(bottom) Clinical exercise physiology students, Strathfield Campus

COURSEWORK

Postgraduate coursework programs at ACU provide advanced knowledge and skills in a structured learning format with set units of study and specific assessment tasks. Many programs have the flexibility to move through different qualification levels, begin at masters level, or exit early with an industry-relevant qualification.

GRADUATE CERTIFICATE

Develop advanced skills and knowledge in a specialist area with a focus on professional development.

Units of study: Four (40 credit points)

GRADUATE DIPLOMA

Develop a deeper understanding and further advance skills and knowledge in a professional area.

Units of study: Eight (80 credit points)

MASTERS DEGREE

An intensive and in-depth study that will enhance professional skills in a specialised area.

Units of study: 12 or 16 (120 or 160 credit points)

HIGHER DEGREE RESEARCH

A research degree provides thorough training in a particular discipline area. Students undertake a process of original investigation in order to increase knowledge and make an important contribution to the development of new knowledge in society. Graduates will have a systematic and critical understanding of a complex field of learning. Study is undertaken by working with at least two academics with specialist expertise in that area of study. ACU offers supervised research at either masters or doctoral level.

Master of Health Science Research:
18 months full-time study (or equivalent part-time)

Master of Philosophy (MPhil):
Two years full-time study (or equivalent part-time)

Doctor of Philosophy (PhD):
Three to four years full-time study (or equivalent part-time)

FINANCIAL ASSISTANCE

AND SCHOLARSHIPS



FULL FEE-PAYING

Students can nominate to pay their fees upfront without any government subsidy. Contact AskACU for more information.

acu.edu.au/askacu

FEE-HELP is a government loan scheme that assists eligible domestic fee-paying students to defer payment of all or part of their tuition fees. Repayment of the loan occurs through the tax system once your income exceeds the minimum threshold.

studyassist.gov.au



COMMONWEALTH SUPPORTED PLACE (CSP)

Commonwealth supported places are subsidised by the Australian Government, with the student paying the remainder of the fees through a 'student contribution' amount. Not all postgraduate courses offer CSP places, and eligibility requirements apply.

HECS-HELP is a government loan scheme that assists eligible Commonwealth supported students to defer payment of all or part of their tuition fees. Repayment of the loan occurs through the tax system once your income exceeds the minimum threshold.

studyassist.gov.au



FACULTY ALUMNI REBATE

A 10 per cent rebate on postgraduate fees is offered to graduates of ACU enrolling in programs offered by the Faculty of Health Sciences (conditions apply).

acu.edu.au/fhs/alumni-rebate



RESEARCH TRAINING PROGRAM

Commencing domestic students enrolling in a master-by-research or doctoral degree at ACU may be granted a Research Training Program Fee Offset Scholarship under the Australian Government's Research Training Program. This means that candidates are exempt from paying tuition fees.



POSTGRADUATE COURSEWORK SCHOLARSHIPS

A number of university scholarships are available to commencing and continuing postgraduate coursework students providing assistance with education, living and/or travel costs. For scholarship eligibility criteria and application information, visit acu.edu.au/scholarships



POSTGRADUATE RESEARCH SCHOLARSHIPS & FINANCIAL ASSISTANCE

For further information on scholarships available to postgraduate research candidates, visit research.acu.edu.au/graduate-research/scholarships

HOW TO APPLY

Application to ACU postgraduate coursework programs – including graduate or postgraduate certificates and diplomas, and masters by coursework degrees – is by online application direct to ACU.

acu.edu.au/apply

If you have any questions about your ACU application, visit acu.edu.au/askacu



01 CHOOSE THE COURSE YOU WOULD LIKE TO STUDY

Read ACU's *Exercise Science Postgraduate Course Guide 2018*
Browse acu.edu.au/courses

02 CHECK IMPORTANT DATES AND APPLICATION REQUIREMENTS

Application to some courses also requires the submission of supporting documentation and/or additional information forms.

03 BROWSE THE SCHOLARSHIPS OFFERED TO STUDENTS

ACU offers a range of scholarships which recognise outstanding academic achievement as well as students who might otherwise be excluded or disadvantaged. Visit acu.edu.au/scholarships

04 APPLY ONLINE DIRECT TO ACU

Apply for your course at acu.edu.au/courses

HIGHER DEGREES BY RESEARCH

Application to ACU higher degrees by research, including the Master of Health Science Research, Master of Philosophy and Doctor of Philosophy (including the PhD component of dual coursework/PhD programs), is by direct application to Graduate Research.

To apply:

1. Check your eligibility
2. Complete an application for admission
3. Organise your referee reports
4. Submit the completed application

acu.edu.au/research/apply

SCHOOL OF EXERCISE SCIENCE

The School of Exercise Science offers students the skills and knowledge needed in a dynamic and expanding industry.

Students studying exercise science at ACU have the advantage of state-of-the-art facilities, including fully equipped gyms and exercise science labs. Our lecturers are experts in their fields with close links to industry and a focus on world's best practice. The school has created unique opportunities for student learning and development in elite sport, allied health, and the public health system.

Cross-disciplinary study units bring together current and new knowledge from a range of professions within the industry including: sports psychology, skill acquisition, nutrition and dietetics, exercise physiology, physiotherapy, sports medicine, and rehabilitation. Specific topics are developed and delivered by internationally renowned experts. The school also has community engagement opportunities for students, which includes sport development and capacity building, both locally and internationally.

We span five campuses – Ballarat, Brisbane, Canberra, Melbourne and Strathfield. Researchers, lecturers, practitioners, and clinical supervisors consult and conduct research in areas such as sports science, elite athlete preparation and career development, recreation leadership, and the clinical applications of exercise in healthy populations, those with chronic disease, and/or injured populations.

The following doctoral theses are supervised in the School of Exercise Science:

- Assessment of sleep patterns and performance in elite athletes.
- Workload and muscle function in high performance populations.
- Central and peripheral factors of fatigue following simulated team sport activity.
- Relationship between physical qualities and activity profiles of elite women's rugby sevens players.
- The relationship between growth, maturation, dance training and injury risk in dancers.
- The influence of hamstring function on anterior cruciate ligament loading.
- The association between footwear, lower limb biomechanics, activity levels and injury in children.
- Accepting the benefits of risk during play in young children with disability.
- Protective effect of exercise on vascular function after sugary drink consumption.
- REVUP: Cardiovascular risk outcomes from a healthy lifestyle intervention.
- Effects of Eccentric Training on ankle joint contracture in people with multiple sclerosis.
- Physical activity in people after stroke following discharge from inpatient rehabilitation.

acu.edu.au/so-exercisescience



ACU students and staff, Melbourne Campus

EXERCISE SCIENCE

PARTNERSHIPS

In recent years, the School of Exercise Science has worked with the following partners in sports science delivery, industry experience, and research collaborations:

- ACT Academy of Sport
- Austin Health
- Australian Ballet School
- Australian Institute of Sport Combat Centre of Excellence
- Australian Jockey Association
- Australian Rugby Union
- Brisbane Lions Football Club
- Brisbane Roar FC
- Centre for Healthy Ageing
- Collingwood Football Club
- Cricket Australia
- Cumberland Hospital
- Epworth Health
- Greater Western Sydney FC
- Gymnastics Australia
- International Cricket Council
- Irish Rugby Union
- Melbourne Football Club
- Melbourne Rebels Rugby Union
- Melbourne Storm Rugby League Club
- Melbourne United FC
- Melbourne Victory FC
- Monash Health
- National Institute of Sport Malaysia
- New South Wales Institute of Sport
- North Melbourne Football Club
- Norths Devils Rugby League Football Club
- NSW Racing
- NSW Rugby League
- Optimum Rehab
- Orygen Youth Health
- Port Adelaide Football Club
- Queensland Academy of Sport
- Queensland Rugby League
- Socceroos
- Spinal Cord Injuries Australia
- St Kilda Football Club
- Tennis Australia
- The Exercise Clinic
- Victorian Institute of Sport
- Western Sydney Wanderers FC



ACU Exercise science students

ACADEMIC PROFILES



DR STUART CORMACK
Senior Lecturer
School of Exercise Science

Dr Stuart Cormack spent 14 years working in the Australian Football League, including eight years as the Fitness Coach at the West Coast Eagles, highlighted by two grand final appearances and winning the 2006 AFL Premiership. In addition, Dr Cormack spent four years as a Strength and Conditioning Coach at the Australian Institute of Sport where he worked with a number of elite athletes in a variety of team and individual sports in preparation for the Sydney 2000 Olympic Games.

Dr Cormack is also a Level 3 Strength and Conditioning Coach and a Life Member of the Australian Strength and Conditioning Association. He has published numerous papers in scientific journals and co-authored several book chapters, including *Physiological Tests for Elite Athletes* (2nd Edition), *High Performance Training for Sports* and *Strength and Conditioning – Biological Principles and Practical Applications*.

Dr Cormack regularly presents at sports science and coaching conferences in addition to providing consultancy support to various organisations, including the International Cricket Council, Australian Institute of Sport Combat Sports Centre of Excellence, and Melbourne Football Club. Dr Cormack has an interest in all areas of athletic preparation with a particular focus on monitoring training load and fatigue in elite athletes and its impact on performance.



DR CRAIG DUNCAN
Course Coordinator,
Graduate Certificate in
Performance Analysis,
School of Exercise Science

Dr Craig Duncan is one of Australia's leading sport scientists with a passion for safe, professional, and ethical standards in the industry.

Dr Duncan's innovative and holistic approach to player management has enabled high performance teams to maximise performance and lower injury rates in their professional athletes.

Dr Duncan was working with Sydney FC when the team took out the A-League Championship, with the Western Sydney Wanderers when the team became the first Australian side to win the Asian Champions League in 2015, with the NSW State of Origin team for its drought-breaking series win in 2014, and with the Socceroos when the team became Asian Champions in 2015.

Dr Duncan was named Sport Scientist of the Year by Exercise and Sport Science Australia (ESSA) in 2014.



DIRK MELTON
Course Coordinator, Graduate
Certificate in High Performance
Sport Leadership

Dirk Melton has spent the last 10 years working as a senior executive within the sports, media and entertainment sector. Roles have included Commercial Director at Ticketek, Head of Marketing and Consumer at St George Illawarra Dragons, Chief Operating Officer at the Canterbury-Bankstown Bulldogs, CEO at Sydney FC, and GM Strategy at NSW Rugby League.

Dirk is widely acknowledged within the sports industry for his capabilities in strategic thinking, research and insights, problem solving, facilitating change, and brand management. Achievements include the turnaround of the Bulldogs brand and commercial program, the first person in sports marketing to gain access to both the Avatar and Star Wars brands and the second for the UNICEF brand, and development of the 'high performance program' for the victorious 2014 NSW State of Origin team. Currently, Dirk is HP Strategic advisor to the Australian Rugby Union, and is completing his doctoral thesis on the importance of systems thinking within elite sport.



**ASSOCIATE PROFESSOR
PRUE CORMIE**
Principal Research Fellow
Institute for Health and Ageing

Associate Professor Prue Cormie is an accredited exercise physiologist whose research and clinical work focuses on the role of exercise in the management of cancer. Her achievements include receiving more than \$2.6 million in competitive research grant funding and approximately 60 refereed publications and book chapters.

Associate Professor Cormie's research program seeks to understand the application of exercise as medicine for the management of cancer and involves the convergence of exercise science, cancer care, and innovation in allied health services. She has produced influential research exploring the efficacy of targeted exercise prescriptions in counteracting significant side effects of cancer and cancer treatments.

Associate Professor Cormie joined the Institute for Health and Ageing in late 2015 after a highly successful appointment at Edith Cowan University where she was a Cancer Council Western Australia Postdoctoral Fellow. Associate Professor Cormie was also awarded the Cancer Council Western Australia Early Career Cancer Researcher of the Year Award in 2015, and the Western Australia Young Tall Poppy of the Year Science Award from the Australian Institute for Policy and Science in 2015.



DR DAVID OPAR
Lecturer, Head of ACU Hamstring
Injury Group
School of Exercise Science

Dr David Opar has been involved in exercise, sport and human movement sciences for the past decade. After teaching in the university sector as an associate lecturer in functional anatomy, Dr Opar moved to Queensland University of Technology to complete his PhD under the supervision of Dr Anthony Shield, focusing on neuromuscular hamstring function in response to injury. During this time he worked with Dr Shield to develop the NordBord, a novel device used to measure hamstring strength to detect those at risk of hamstring injury risk.

Dr Opar joined the ACU team in 2013 and is currently involved in teaching functional anatomy and heads up the popular Master of High Performance Sport unit, Performance and Injury: Prevention and Management. He is the Head of the ACU Hamstring Injury Group, which focuses its work on identifying risk factors for hamstring injury. With his guidance and supervision, the group have completed and are undertaking a large body of research in this area. They cover themes in relation to hamstring muscle architecture, the objective monitoring of hamstring muscle structure and function during rehab, and the biomechanical analysis of hamstring injury and its impact on knee joint loading.



DR MICHAEL BAKER
Senior Lecturer
School of Exercise Science

Dr Michael Baker is an exercise scientist whose research, clinical, and teaching career has focused on the integration of exercise, medicine, lifestyle, and behaviour change as a means to improve quality of life, particularly among older adults.

Dr Baker is a member of Exercise and Sport Science Australia (ESSA) and is an accredited exercise physiologist. Dr Baker has participated in the coordination and implementation of several randomised trials of exercise in clinical populations, including participants with prostate cancer, breast cancer, osteoarthritis, type 2 diabetes, osteopenia, NAFLD, and cognitive decline. He currently supervises a number of masters and PhD students in projects examining the role of exercise and lifestyle in chronic disease and cancer. The translation of this work into clinical practice, international policy, and community program implementation is central to his goals as a researcher.

Dr Baker's commitment to university service is evidenced by his mentorship of students at all levels and by his roles on a number of research and advisory committees. He has independently developed and taught complete courses at the undergraduate level, and is currently the coordinator of ACU's Master of Clinical Exercise Physiology.

RESEARCH

ACU has prioritised the intensification of research.

In line with the University's mission, each priority research area strives to make a positive difference in communities and the world at large.

An exciting part of research intensification at ACU is the establishment of seven research institutes, including three focusing on health.

Reflecting the University's Catholic ethos, ACU's priority research areas revolve around key societal needs. These priority research focus areas are as follows.

EDUCATION

Research concerned with quality, equity, and diversity in education, with emphases on leadership, numeracy, literacy, Indigenous, and religious education.

HEALTH (INCLUDING MENTAL HEALTH)

Research that progresses the quality of healthcare, especially for the vulnerable.

THEOLOGY AND PHILOSOPHY

Research concerned with the elucidation, development, and expression of Catholic intellectual thought.

SOCIAL JUSTICE AND THE COMMON GOOD

Cross-disciplinary research in the liberal arts and social sciences that enhances the social and cultural well-being of communities.

acu.edu.au/research

MARY MACKILLOP INSTITUTE FOR HEALTH RESEARCH

Director: Professor Simon Stewart

Aim: The Mary MacKillop Institute for Health Research (MMIHR) team is focused on finding and advocating for new solutions to high priority community health needs. Our research aims to address critical public health issues by responding with innovative programs that deliver better health outcomes and transform lives.

MMIHR brings national and international health experts together with leading organisations across a broad portfolio of health services research, fostering an environment of collaborative research without discipline-based boundaries.

Our team of prominent researchers are driven to improve the quality of health care through research that tests the effectiveness of existing health services, support, and education. Our research enables us to develop and shape new social and community programs that contribute to a better health care system more sensitive to patient needs. MMIHR emphasises the importance of translating research findings into practical community health initiatives that produce real outcomes.

The institute's research emphasises the complex interactions between individuals, communities and health care systems to improve health outcomes. This broad-based approach includes:

- community and population-based surveillance to better understand the societal impact of disease and potential drivers of inequitable patterns of risk and disease
- focused studies to understand and describe the individual impact of risk behaviours and disease
- clinical-based exercise-nutrition studies aimed at improving health and wellbeing
- health services and interventions for chronic disease prevention and management
- primary care health services in community and nurse-led settings
- social equity for access and delivery of health services
- understanding social and behavioural issues that negatively impact health.

MMIHR has productive partnerships with world-leading health researchers and organisations. These collaborations are highly valued, and a strong partnership culture within MMIHR drives the development of future projects. The institute's integral partners include St Vincent's Institute (Melbourne), The Mater Hospital (Brisbane), Maastricht University (The Netherlands), The National Heart Foundation of Australia, and the Hatter Institute (Republic of South Africa).



CENTRE FOR EXERCISE AND NUTRITION

As the rate of chronic lifestyle-related diseases continues to rise, the work of the Centre for Exercise and Nutrition has never been more critical. The world-leading laboratory conducts invasive, clinical-based exercise-nutrition studies directed at improving community health and wellbeing.

The centre's research team is investigating the roles of exercise interventions and diet in the prevention of chronic conditions such as diabetes and cardiovascular disease.

Research programs are conducted in world-class laboratory facilities using a range of state-of-the-art equipment. Researchers are dedicated to achieving research excellence using a holistic approach that considers molecular, cellular and whole body physiology, which is one of the centre's key strengths.

Director: Professor John Hawley

Professor John Hawley's primary research focus includes the interaction of exercise and diet on the regulation of fat and carbohydrate metabolism, particularly within skeletal muscle, the molecular basis of exercise training adaptation, and the cellular bases underlying exercise-induced improvements in insulin action.

Professor Hawley holds a joint appointment as Professor of Exercise Metabolism and Nutrition at the Research Institute for Sport and Exercise Sciences, Liverpool John Moores University, in the United Kingdom.

Professor Hawley has published more than 250 scientific manuscripts, written more than 100 articles for technical journals, and has authored numerous book chapters for exercise biochemistry and sports medicine texts. He is an associate editor for *Diabetologia* and currently sits on the editorial boards of many international journals, including *American Journal of Physiology (Endocrinology and Metabolism)*, *The Journal of Applied Physiology (USA)*, *The Journal of Sports Sciences (UK)*, *Medicine and Science in Sports and Exercise (USA)*, *Sports Medicine (New Zealand)*, *The International Journal of Sport Nutrition*, and *Exercise Metabolism (USA)*. He is a frequently invited speaker at both national and international scientific meetings.



Professorial Fellow: Professor Louise Burke

Professor Louise Burke's research interests lie in nutritional intervention strategies for sporting performance. Professor Burke is a sports dietitian with more than 35 years' experience in the education and counselling of elite athletes. The goal of Professor Burke's research is to find practical nutrition strategies that athletes and coaches can use to achieve optimum performance.

Professor Burke has been the Head of Sports Nutrition at the Australian Institute of Sport since 1990. Her role as the team dietitian for the Australian Swimming Team from 1991-2007, and Australian Olympic Team from 1996-2012 provided extensive experience with international competition, the organisation of team travel, and dietary concerns of the travelling athlete.

Professor Burke's publications include more than 250 research papers in peer-reviewed journals and book chapters, and the authorship or editorship of several textbooks on sports nutrition. Professor Burke was a founding member of the Executive of Sports Dietitians Australia and is a Director of the IOC Diploma in Sports Nutrition. She was awarded a Medal of the Order of Australia in 2009 for her contribution to sports nutrition.



COURSE

**LISTINGS
2018**

ALL OUR COURSES ARE COMPLIANT WITH THE



Please note: Fees cited are domestic student fees for 2018, based on 2018 unit costs. Each unit of study is normally worth 10 credit points but there are some exceptions to this rule. Each year there is a fee increase; fees for programs undertaken over a number of years will therefore differ from those cited here. International students should refer to ACU's *International Course Guide*.

CLINICAL EXERCISE PHYSIOLOGY

MASTER OF CLINICAL EXERCISE PHYSIOLOGY

CAMPUS

Brisbane, Melbourne, Strathfield
(attendance)

DURATION

1.5 yrs FT (or equivalent PT)
120 credit points

FEES

\$2,285 per 10 credit points
Limited Commonwealth Supported
Places available (refer to page 6)

ACCREDITATION

This sequence provides students with the required training, skills, competencies, and clinical experience in exercise prescription and rehabilitation for accreditation as an exercise physiologist by Exercise and Sports Science Australia (ESSA). This course is accredited by Exercise and Sports Science Australia (ESSA).

Students will gain knowledge and appropriate skills in screening, assessment, and provision of exercise intervention in multiple applications across the lifespan, including prevention and management of chronic disease(s), workplace conditioning, and sport injury rehabilitation.

ENTRY REQUIREMENTS

To be eligible for admission to the course, an applicant must:

- have completed a bachelor degree that is accredited by Exercise and Sports Science Australia (ESSA) at Exercise Science level, with a grade point average (GPA) of at least 4.6; OR
- have attained ESSA Graduate assessment, and a non-ESSA accredited bachelor degree with a grade point average of at least 4.6; OR
- have attained Exercise Science accreditation and a non-ESSA accredited bachelor degree with a grade point average of at least 4.6;
2. submit evidence of a current CPR certificate;
3. submit a letter of application (300-500 words) outlining the reasons for their interest in the course;
4. submit a supporting professional referee's report.

To qualify for the degree, a student must complete 120 credit points from the Schedule of Unit Offerings.

ENTRY PATHWAYS AND PARTNERSHIPS

- ACU's BExSSc course is NUCAP-accredited for Exercise Science (ES) from 2014-2018 and, thus, is an entry pathway to the MCEPN.
- Degrees at other Australian universities that are NUCAP accredited at the ES level act as entry pathways.
- Students who attain Exercise Scientist membership or Graduate Entry assessment through ESSA can apply for entry to the MCEPN.
- Entry via successful completion of other allied health programs will be considered on a case-by-case basis.

PRACTICAL EXPERIENCE

Types of organisations where students would gain professional experience include but are not limited to hospitals, community health services, private practice, worksites, sport medicine clinics, and aged care facilities.

Students are required to complete 500 hours of clinical placement with requirements to complete a set number of hours in target pathology areas.

Both units EXSC637 Clinical Experience 1 and EXSC638 Clinical Experience 2 have compulsory attendance.

Students are required to complete 140 hours of apparently healthy population hours, 140 hours of neuro/musculoskeletal hours, 140 hours cardio/metabolic, and 80 hours other (mental health, cancer etc). These are the targeted pathology areas.

The type of work students undertake during the course is with clients who have chronic and complex conditions. Students will be developing client-centred, safe, and effective exercise interventions. Students will refine their clinical decision-making skills that incorporate the use of effective motivation interviewing, along with valid and reliable outcome measures.

CAREER OUTCOMES

On completion of this degree, a student will enter the job market as an Accredited Exercise Physiologist (AEP). AEPs work across the lifespan of client needs in:

- hospital or community health environments as part of a multidisciplinary team in the management and treatment of complex and chronic disease
- private practice as part of a multidisciplinary care of clients
- workplace/industrial settings in injury prevention, injury management, and occupational rehabilitation
- aged care in the prevention of physical decline and maintenance of independence as well as management of chronic disease
- any work environment that requires an allied health professional who can prescribe effective exercise prescription for the management of complex and chronic disease
- any environment that requires the prevention of injury and disease and the promotion of healthy lifestyle practices
- a sport rehabilitation setting.

MASTER OF CLINICAL EXERCISE PHYSIOLOGY – SAMPLE PROGRAM MAP

Year 1

Semester 1	EXSC633 Lifestyle and Exercise Counselling EXSC632 Neurological Analysis, Prescription and Rehabilitation	EXSC634 Musculoskeletal Analysis, Prescription and Rehabilitation EXSC639 Applied Anatomy for Clinical Exercise Physiologists
Semester 2	EXSC636 Responsible Clinical Practice EXSC635 Cardiometabolic Analysis and Rehabilitation	EXSC611 Occupational Assessment and Rehabilitation EXSC637 Clinical Experience 1

Year 2

Semester 1	EXSC638 Clinical Experience 2
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EXSC611 OCCUPATIONAL ASSESSMENT AND REHABILITATION

Functional movement capacity is limited by the mechanical characteristics and structures of the human body, as well as the design characteristics of facilities and equipment in work, sport, exercise, and everyday life. This unit provides knowledge of and develops skills in occupational rehabilitation, including ergonomic principles as well as assessment and analysis within the workplace and other environments. It will extend the students' knowledge and skill base of exercise prescription to manage return to work programs.

EXSC632 NEUROLOGICAL ANALYSIS PRESCRIPTION AND REHABILITATION

Injury to the nervous system is often devastating; however, extensive recovery of function within this system is possible with appropriate diagnosis and rehabilitation. This unit builds upon a framework of the human nervous system at gross anatomical and fundamental elemental levels, with a focus upon the sensory and motor components of movement control. This unit will extend the principles of physiology, motor control and biomechanics, and build upon skills gained during undergraduate studies. Students will explore the use of exercise in the rehabilitation of individuals with neurological disorders (including stroke, spinal cord injury, acquired brain injury, Parkinson's and multiple sclerosis). Specifically, pathophysiology of neural injury, general impairments commonly suffered as well as specific neurological disorders will be examined. Students will become proficient in the techniques for the determination of neurologic injury and exercise-based rehabilitation of general neurological impairments, as well as specific neurological disorders.

EXSC633 LIFESTYLE AND EXERCISE COUNSELLING

This unit provides students with knowledge and practical experience in conducting individual and group lifestyle and exercise counselling sessions for a wide variety of clients. These may include both lifestyle (exercise for health and wellbeing) and specific-needs groups, such as newcomers to exercise or clients seeking physiological and/or psychological rehabilitation. The nature of the client's needs requires the health professional to be cognisant of, and sensitive to, a host of factors, which may inhibit or enhance exercise adherence. Eliciting information in a non-threatening manner and assisting the client to make appropriate and considered decisions for change and action is a fundamental skill developed in this unit.

EXSC634 MUSCULOSKELETAL ANALYSIS, PRESCRIPTION AND REHABILITATION

In this unit, students will analyse current scientific knowledge and understanding of musculoskeletal disorders and diseases and examine the mechanisms and processes that lead to dysfunction and pain. Functional restoration, or adaptation forms a major focus of the unit. Methodological aspects of the clinical assessment of musculoskeletal disorders and diseases will be discussed together with the theory and practice of available exercise prescriptions and treatment therapies. The unit expands existing skills and knowledge necessary to prescribe exercise as a prevention and management strategy for disease, as a treatment strategy for injury, including sports injuries, and as a means of sustaining functional independence throughout the lifespan in a safe and effective manner.

EXSC635 CARDIOMETABOLIC ANALYSIS AND REHABILITATION

Cardiac, respiratory, and metabolic conditions represent the most prevalent conditions encountered by exercise physiologists. This unit presents current medical and scientific knowledge of cardiac, respiratory, and metabolic disorders and diseases. An examination of the aetiology, incidence, epidemiology, and pathophysiology of the disease processes, as well as the adaptations that lead management of the disease, is a major focus of the unit. Current evidence and guidelines for exercise testing and exercise prescription as related to cardiac respiratory and metabolic disorders will be discussed in detail. Methodological aspects of the clinical assessment will be discussed and applied together with the principles of available exercise prescriptions and other treatment therapies.

EXSC636 RESPONSIBLE CLINICAL PRACTICE

This unit examines the ethical and legal responsibilities that face the professional exercise physiologist in a clinical setting. Emphasis is placed on understanding and applying ethical and legal decision-making in clinical exercise physiology practice. This unit also introduces students to fundamental business principles in the health care environment.

EXSC637 CLINICAL EXPERIENCE 1

This unit facilitates the transition from student to practitioner. It will offer some opportunities to explore and engage in a variety of exercise prescription and rehabilitation experiences. Exposure to the multidisciplinary nature of the health care environment is important and students will be supervised to conduct assessments and provide safe and effective exercise prescription for rehabilitation of real clients. Students will prepare for their clinical experience and apply the enhanced skills learned.

EXSC638 CLINICAL EXPERIENCE 2

This unit provides a capstone to student learning with opportunities to expand their clinical experiences and transfer the theoretical knowledge gained in other units. In providing interaction with experienced allied health and medical professionals in a workplace setting, it will continue to expose and engage students in a variety of exercise physiology work environments and offer the final steps for the exercise physiology student to progress to an entry-level clinician. Furthermore, this unit will develop professional entry skills to establish a small business practice, to work within the workers compensation systems, and develop the necessary writing skills for clinical and medico-legal case reports, tenders, and professional correspondence.

EXSC639 APPLIED ANATOMY FOR CLINICAL EXERCISE PHYSIOLOGISTS

The aim of this unit is to provide students with an advanced understanding of the applications of anatomy to clinical assessment, investigation, and decision-making. The unit will further develop skills in surface anatomy, structural anatomy, functional anatomy, cross-sectional anatomy, and radiographic anatomy, relevant to physical examination, exercise testing, clinical imaging studies, and other clinical investigations. Students will use a case-based approach to become proficient in applying anatomical knowledge to clinical situations.



(Top) ACU staff and students, Melbourne Campus, (middle left) Alex Sakadjian, Master of High Performance Sport graduate, Sport science coordinator and rehabilitation coach, Melbourne Football Club, (middle right and bottom) ACU students and staff, Melbourne Campus

HIGH PERFORMANCE SPORT

CAMPUS

Online (with an on-campus intensive component in Melbourne)

FEES

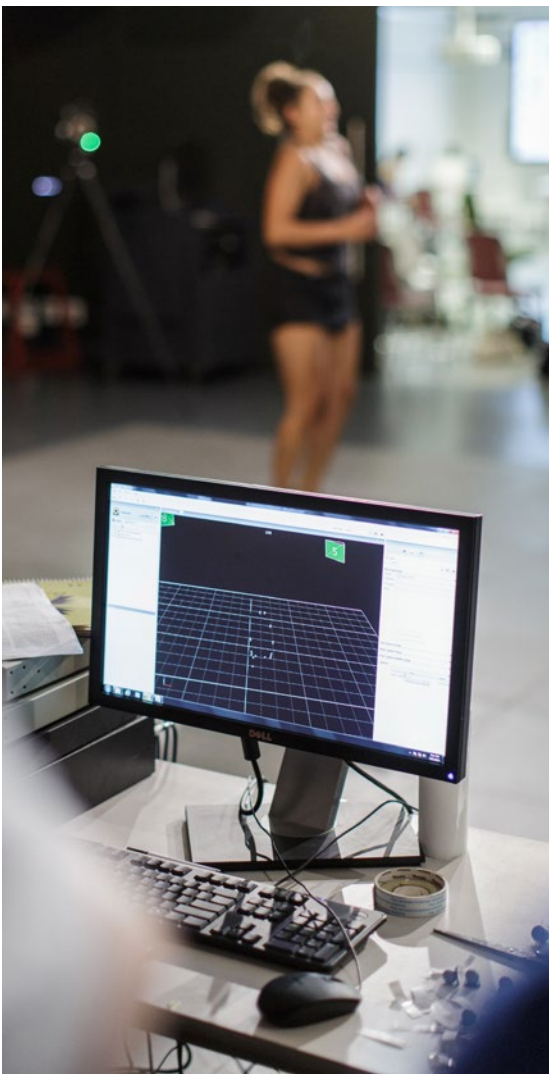
\$2,263 per 10 credit points

The high performance sport suite of programs includes relevant, professional practice-related learning, independent research and project work, and an opportunity for an industry-based internship. The Master of High Performance Sport can also provide a pathway into further research study (eg PhD).

A series of study units focus on the technological advances for athlete monitoring, advanced principles of strength and conditioning, and the relationships between fatigue, adaptation, performance and injury. The application of this knowledge to the planning and delivery of meaningful interventions for athletes to enhance performance and reduce the likelihood of injury and illness, is essential for a professional working in the high performance sport environment. As is using appropriate techniques of analysis to accurately interpret competition and training information, with advanced information literacy skills to communicate ideas and outcomes.

CAREER OUTCOMES

- High performance manager
- Head of athletic department
- Elite sports team manager
- Sports science manager
- Professional coach
- Rehabilitation coach
- Athlete wellbeing manager
- Strength and conditioning coach
- Performance analyst



ACU students, Melbourne Campus

GRADUATE CERTIFICATE IN HIGH PERFORMANCE SPORT

DURATION

6 months FT (or equivalent PT)
40 credit points

ENTRY REQUIREMENTS

To be eligible for admission to the course, an applicant must have completed:

- a bachelor degree (or higher), normally in exercise science, sports science, human movement or a related discipline; OR
- a bachelor degree (or higher), in a different discipline AND have evidence of substantial relevant industry experience; OR
- submit a proposal alongside a formal application, demonstrating evidence of substantial relevant industry experience over a sustained period.

To qualify for the degree, a student must complete 40 credit points from the Schedule of Unit Offerings.

GRADUATE DIPLOMA IN HIGH PERFORMANCE SPORT

DURATION

1 yr FT (or equivalent PT)
80 credit points

ENTRY REQUIREMENTS

To be eligible for admission to the course, an applicant must have completed:

- a bachelor degree (or higher), normally in exercise science, sports science, human movement or a related discipline AND have evidence of substantial relevant industry experience; OR
- a bachelor degree normally in exercise science, sports science, human movement or a related discipline, with a grade point average of at least 4.8 on the ACU 7 point scale; OR
- the Graduate Certificate in High Performance Sport, Graduate Certificate in Performance Analysis or Graduate Certificate in High Performance Sport Leadership; AND
- submit a supporting professional referee's report.

To qualify for the course, a student must complete 80 credit points from the Schedule of Unit Offerings.

Note: Applicants having completed a bachelor degree (or higher) in a related allied health discipline may be considered, dependent on specific qualifications and evidence of substantial industry experience or similar.

Note: Applicants having completed the Graduate Certificate in High Performance Sport, Graduate Certificate in Performance Analysis or Graduate Certificate in High Performance Sport Leadership will be eligible for recognition of prior learning of up to 40 credit points.

MASTER OF HIGH PERFORMANCE SPORT

DURATION

1.5 yrs FT (or equivalent PT)
120 credit points

ENTRY REQUIREMENTS

To be eligible for admission to the course, an applicant must have completed:

- a bachelor degree (or higher), normally in exercise science, sports science, human movement or a related discipline AND have evidence of substantial relevant industry experience; OR
- a bachelor degree normally in exercise science, sports science, human movement or a related discipline, with a grade point average of at least 4.8 on the ACU 7 point scale; OR
- the Graduate Diploma in High Performance Sport or Graduate Certificate in High Performance Sport, Graduate Certificate in Performance Analysis, or Graduate Certificate in High Performance Sport Leadership; AND
- submit a supporting professional referee's report.

To qualify for the degree, a student must complete 120 credit points from the Schedule of Unit Offerings comprising of:

1. 70 credit points from specified units; AND
2. 10 credit points from elective units; AND
3. 40 credit points comprised of:
 - 20 credit points from project units; AND/OR
 - 20 credit points from internship units; AND/OR
 - 20 credit points from elective units.

Note: Applicants having completed a bachelor degree (or higher) in a related allied health discipline may be considered, dependent on specific qualifications and evidence of substantial industry experience or similar.

Note: Applicants having completed a degree at AQF level 8 or above that incorporated research training may be eligible for recognition of prior learning of up to 40 credit points.

Note: Applicants having completed the Graduate Diploma in High Performance Sport will be eligible for recognition of prior learning of 80 credit points.

Note: Applicants having completed the Graduate Certificate in High Performance Sport, Graduate Certificate in Performance Analysis, or Graduate Certificate in High Performance Sport Leadership will be eligible for recognition of prior learning of 40 credit points.

HIGH PERFORMANCE SPORT – SAMPLE PROGRAM MAP

Graduate Certificate in High Performance Sport – Year 1

Semester 1	EXSC510 Strength and Conditioning for the High Performance Athlete EXSC652 Contemporary Issues in Sports Science	EXSC512 Leadership and Culture in High Performance Settings EXSC513 Data Analysis and Interpretation for High Performance Sport
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Graduate Diploma in High Performance Sport – Year 1 additions

Semester 2	EXSC650 Fatigue, Recovery, Adaptation and Performance EXSC651 Performance and Injury: Prevention and Management	Elective unit EXSC668 Performance Nutrition
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Master of High Performance Sport – Year 2

Semester 1	EXSC654 Major Research Project Part A (20 cp) and EXSC655 Major Research Project Part B (20 cp); OR EXSC656 Minor Project (20 cp) and 2 x 10 cp Elective units; OR EXSC657 Industry Internship (20 cp) and 2 x 10 cp Elective units; OR EXSC656 Minor Project (20 cp) and EXSC657 Industry Internship (20 cp)
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cp – credit points

SPECIFIED UNITS

EXSC510 STRENGTH AND CONDITIONING FOR THE HIGH PERFORMANCE ATHLETE

This unit develops an in-depth understanding of the theoretical concepts and practical application of capacity assessment and program design as they relate to high performance athletes. Specifically, students will become skilled in the use of contemporary methods of field and laboratory-based testing in a number of areas, including aerobic/anaerobic capacity, repeated sprint ability, and strength and power. In addition, this unit will explore cutting-edge practice in training program design across the spectrum of capacities required for performance in a variety of sports.

EXSC512 LEADERSHIP AND CULTURE IN HIGH PERFORMANCE SETTINGS

This unit will introduce perspectives of culture and leadership in the high performance sport environment. Students will develop an understanding of the relationship between culture and values to that of the behaviour of individuals and the organisation. Leadership styles frequently used in professional settings will be addressed, including their place in communication in one-to-one relationships to that of multi-team leadership. Strategic planning and goal setting will provide students with a base to formulate a personal and professional plan as a sport leader, and develop strategies for effective communication and conflict management in a high performance sport organisation. An emphasis will be placed on professionals as socially responsible leaders, who exercise concern for the wellbeing of their clients, colleagues and the community, within appropriate standards of ethical practice.

EXSC513 DATA ANALYSIS AND INTERPRETATION FOR HIGH PERFORMANCE SPORT

This unit provides advanced understanding of the acquisition, analysis, and presentation of data relevant to high performance sport. Common principles for the management of data in the field, laboratory, and research environments will be explored, including developing the ability to present data in a meaningful way to a variety of audiences. The interpretation and critique of sports science data will provide a basis for the application of data management principles to problems faced in applied and research settings. An opportunity for specialisation in particular components of data management specific to the needs of the student will provide practical application of the content.

EXSC650 FATIGUE, RECOVERY, ADAPTATION AND PERFORMANCE

Practitioners require an understanding of the interactions between training load, fatigue, performance, and injury. There will be a particular emphasis on the different models that can be used to explain fatigue and its severity, as well as how different variables can be used to measure fatigue status in response to training and competition. Contemporary methods for enhancing recovery will be examined. A key focus will be on developing the skills to design and implement a load and fatigue monitoring and recovery protocol relevant to specific high performance sport environments.

EXSC651 PERFORMANCE AND INJURY: PREVENTION AND MANAGEMENT

This unit will examine a spectrum of issues relating to performance and injury in high performance sport. Students will be introduced to theories of injury mechanisms, diagnosis, treatment, and prevention. A focus of the unit will be exposure to recent developments in the broad sphere of injury management, including medical and musculoskeletal screening, scanning technologies, new surgical techniques, and rehabilitation strategies. This will provide students with a multi-disciplinary knowledge base for integrated approaches to the design of training programs that address injury prevention and rehabilitation in the high performance environment.

EXSC652 CONTEMPORARY ISSUES IN SPORTS SCIENCE

This unit addresses the multidisciplinary/interdisciplinary environment of high performance sport. Experts from sports science and related allied professions will introduce the contemporary knowledge and practices from their field of expertise relevant to athlete and team preparation and performance. Students will also gain an understanding of how these specialist professions that operate in sporting organisations integrate and communicate with respect to athlete management.

EXSC668 PERFORMANCE NUTRITION

Sports nutrition links food with physical performance. It refers to the nutritional needs of all active people, not just the elite athlete. Nutrition provides the fuel for exercise and the essential elements for growth, maintenance, and repair of the body's tissues. In high performance sport, athletes and coaches recognise that optimal nutrition is critical to sporting success, with the composition, amount and timing of food intake profoundly affecting performance.

ELECTIVE UNITS

EXSC511 TECHNOLOGY IN HIGH PERFORMANCE SPORT

This unit will expose students to cutting-edge technologies used in high performance sport environments. This will include advanced systems such as force plates, linear position transducers, micro technologies such as global positioning systems and accelerometers, movement analysis software, and altitude training systems. Students will have the opportunity to gain hands on experience with the appropriate use of such technology including an in depth understanding of the issues associated with obtaining high quality, useful data.

EXSC653 PROJECT DESIGN FOR HIGH PERFORMANCE SPORT

This unit addresses evidence-based approaches to the formulation, design, and conduct of projects in the high performance sport environment. Students will develop an ability to critically appraise the process and planning of projects designed to investigate questions in the applied setting, and gain awareness of alternative approaches used in sports science research. Students will develop an implementation plan for a project designed to investigate a problem of practical relevance to the students industry, workplace or research goals. This planning process will include reviewing appropriate literature and appraisal of available field, laboratory and/or software technologies for data acquisition and analysis, with a focus on developing scientific/report writing and presentation skills.

EXSC658 PERFORMING UNDER PRESSURE

This unit explores the theoretical concepts of sport and performance psychology and their practical application as they relate to high performance athletes and the environments in which they operate. The unit will address basic and advanced performance psychological concepts related to sport performance in high pressure situations and their application into practice in a variety of high pressure contexts. By developing evidence-based knowledge of performance psychological concepts and ideas, and their application in high performance, high-pressure sport, students will discover that psychology is as much about the contexts, tasks, and environments of high performance sport as it is about the individual athlete's mind and behaviour. The emphasis is on translating theory into practice with a means of appraising the application of theoretical psychology concepts in the arena of high performance sport.

EXSC659 ATHLETE DEVELOPMENT: STRATEGIES, CAPABILITIES AND WELLBEING

The development of elite sports systems has traditionally focused on the optimal performance of the athlete. Increasingly, sport has been faced with the need to consider the development of its star performers from a much more holistic and human perspective. This unit addresses the notion of sport as a career, including strategies that meet the needs of athletes transitioning through a sporting career, the development of their own brand, personal and professional development, and life beyond the playing field. This includes a focus on organisational and ethical responsibilities that sport is obliged to assume for the wellbeing of its employees, which are based on recognising the human dignity of the athlete and the spirit of sport.

EXSC670 TEAM DYNAMICS

In high performance sport environments, success is dependent upon the ability of leaders to leverage the capabilities and self-awareness of individuals and effectively coordinate them into a team-oriented system. This unit explores the roles, responsibilities, structures and relationships that influence the team environment, as well as the individual within that team.

EXSC671 THE BUSINESS OF HIGH PERFORMANCE SPORT

Within society, high performance sport can be viewed through both economic and social lenses. The dominance of the economic lens means that, in many cases, the business model developed by high performance sport organisations will determine the engagement approach adopted and the value provided to stakeholders. This unit will examine business model structures, strategies and value systems that operate in, and are relevant to, the high performance sport industry, as well as the contribution that the industry can make from a social and community perspective.

EXSC672 THEORETICAL FOUNDATIONS OF PERFORMANCE ANALYSIS

This unit will introduce the key concepts of performance analysis and how it can be applied in high performance sport. With a theoretical focus, there will be an emphasis on what performance is and the evolution of performance analysis and different techniques that can be utilised.

EXSC673 APPLICATION, MEASUREMENT, AND EVALUATION OF PERFORMANCE ANALYSIS

This unit will address the application of the performance analysis process in high performance sport settings. Effective and creative approaches to data management, analysis, interpretation, and reporting are keys to successful implementation and outcomes in sporting organisations. The application of performance analysis practised in a variety of sporting contexts and problems will be examined.

PROJECT UNITS

EXSC654 MAJOR RESEARCH PROJECT (PART A) – 20 CP

This unit provides a 'capstone' experience for students by affording them a learning experience that involves the completion of a research project of interest to the student and of relevance to the industry. Projects may take the form of an investigative study, systematic review, or meta-analysis, and will include the preparation of a manuscript for publication. The project will be conducted under the supervision of a member of staff appointed by the Head of School. Students will apply knowledge and skills developed in previous units to identify a research problem of interest and formulate an ethical and defensible research proposal. The Major Research Project units (EXSC654 Part A and EXSC655 Part B) is a 12-month commitment, with students enrolling in this unit (EXSC654) as a prerequisite to EXSC655.

EXSC655 MAJOR RESEARCH PROJECT (PART B) – 20 CP

This unit provides a 'capstone' experience for students by affording them a learning experience that involves the completion of a research project of interest to the student and of relevance to the industry. Projects may take the form of an investigative study, systematic review, or meta-analysis, and will include the preparation of a manuscript for publication. The project will be conducted under the supervision of a member of staff appointed by the Head of School. Students will apply knowledge and skills developed in previous units (including EXSC654) to implement their project design in order to provide insight into their research question. The Major Research Project units (EXSC654 Part A and EXSC655 Part B) is a 12-month commitment, with students having to complete EXSC654 as a prerequisite to this unit (EXSC655).

EXSC656 MINOR PROJECT – 20 CP

This unit provides a 'capstone' experience for students by affording them a research-based learning experience, involving the opportunity to investigate an area of relevance to the industry. Students will apply knowledge and skills developed in previous units to address the specific area of interest, with the results of their enquiry reported in a form consistent with industry expectations.

INTERNSHIP UNIT

EXSC657 INDUSTRY INTERNSHIP – 20 CP

This unit delivers a capstone experience for students by providing a professional placement in a high performance sport organisation. Students engage in a work environment to provide experiential contexts for the development and application of prior learning, knowledge, and skills. This experience allows students to develop professional/workplace skills and networks to meet the goals of a professional or industry body. It simultaneously enhances the reciprocal flow of knowledge and its application between the University and the workplace or community setting in which the student is placed. The unit is designed to create a safe experience in peer review because of the importance of maintaining standards of professional and ethical practice after graduation.

HIGH PERFORMANCE SPORT LEADERSHIP

GRADUATE CERTIFICATE IN HIGH PERFORMANCE SPORT LEADERSHIP

CAMPUS

Online*

DURATION

6 months FT (or equivalent PT)

40 credit points

FEES

\$2,263 per 10 credit points

*Depending on elective choice, students may be required to attend an on-campus intensive at the Melbourne Campus.

The high performance sport industry is increasingly focused on developing employees and athletes with strong leadership skills and training in ethics. Proposed regulatory changes within the industry may make these skills a necessity. The Graduate Certificate in High Performance Sport Leadership has been designed specifically to address these industry demands.

This course prepares you for the following roles: Elite sport board members, elite sport executive committee members, head of athletic department, high performance manager, team manager, sports scientist, professional coach, rehabilitation coach, athlete wellbeing manager, strength and conditioning coach.

ENTRY REQUIREMENTS

To be eligible for admission to the course, an applicant must:

- have completed a relevant bachelor degree (or higher); OR
- have completed a bachelor degree in a different discipline AND have evidence of substantial relevant industry experience; OR
- submit a proposal alongside their formal application, demonstrating evidence of substantial relevant industry experience over a sustained period.

To qualify for the degree, a student must complete 40 credit points from specified units.

GRADUATE CERTIFICATE IN HIGH PERFORMANCE SPORT LEADERSHIP – SAMPLE PROGRAM MAP

Year 1

Semester 1	EXSC512 Leadership and Culture in High Performance Settings EXSC659 Athlete Development: Strategies, Capabilities and Wellbeing	EXSC671 The Business of High Performance Sport Elective unit
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SPECIFIED UNITS

EXSC512 LEADERSHIP AND CULTURE IN HIGH PERFORMANCE SETTINGS

This unit will introduce perspectives of culture and leadership in the high performance sport environment. Students will develop an understanding of the relationship between culture and values to that of the behaviour of individuals and the organisation. Leadership styles frequently used in professional settings will be addressed, including their place in communication in one-to-one relationships to that of multi-team leadership. Strategic planning and goal setting practices will provide students with a base to formulate a personal and professional plan as a sport leader, and develop strategies for effective communication and conflict management in a high performance sport organisation.

EXSC659 ATHLETE DEVELOPMENT: STRATEGIES, CAPABILITIES, AND WELLBEING

The development of elite sports systems has traditionally focused on the optimal performance of the athlete. Increasingly, sport has been faced with the need to consider the development of its star performers from a much more holistic and human perspective. This unit addresses the notion of sport as a career, including strategies that meet the needs of athletes transitioning through a sporting career, the development of their own brand, personal and professional development, and life beyond the playing field. This includes a focus on organisational and ethical responsibilities that sport is obliged to assume for the wellbeing of its employees, which are based on recognising the human dignity of the athlete and the spirit of sport.

EXSC671 THE BUSINESS OF HIGH PERFORMANCE SPORT

Within society, high performance sport can be viewed through both economic and social lenses. The dominance of the economic lens means that, in many cases, the business model developed by high performance sport organisations will determine the engagement approach adopted and the value provided to stakeholders. This unit will examine business model structures, strategies, and value systems that operate in, and are relevant to, the high performance sport industry, as well as the contribution that the industry can make from a social and community perspective.

ELECTIVE UNITS

See electives under High Performance Sport on pages 20-21.



"My ACU course was primarily online, so I was able to study and still have a full-time job. I got fantastic support from the lecturers, and the technology ACU uses for live and recorded lectures is great. Some of the lecturers and a fair few of the people running the course also work in high performance sport themselves."

ALEX SAKADIJIAN

MASTER OF HIGH PERFORMANCE SPORT
SPORT SCIENCE COORDINATOR AND REHABILITATION COACH, MELBOURNE FOOTBALL CLUB

PERFORMANCE ANALYSIS

GRADUATE CERTIFICATE IN PERFORMANCE ANALYSIS

CAMPUS

Online (with an on-campus intensive component at the Strathfield Campus)

DURATION

6 months FT (or equivalent PT)
40 credit points

FEES

\$2,263 per 10 credit points

Performance analysis is a rapidly growing area of specialisation in the high performance sport industry, both nationally and internationally. Knowledge and skills in performance analysis are becoming an expectation for industry employment.

This course prepares you for the following roles: Performance analyst, sports scientist, strength and conditioning coach, professional coach, high performance manager, sports science manager, fitness advisor, rehabilitation coach.

ENTRY REQUIREMENTS

To be eligible for admission to the course, an applicant must:

- have completed a bachelor degree (or higher), normally in exercise science, sports science, human movement or a related discipline; OR
- have completed a bachelor degree (or higher) in a different discipline AND have evidence of substantial relevant industry experience; OR
- submit a proposal alongside their formal application, demonstrating evidence of substantial relevant industry experience.

To qualify for the degree, a student must complete 40 credit points from the specified units.

GRADUATE CERTIFICATE IN PERFORMANCE ANALYSIS – SAMPLE PROGRAM MAP

Year 1

Semester 1 EXSC511 Technology in High Performance Sport
EXSC513 Data Analysis and Interpretation for High Performance Sport

EXSC672 Theoretical Foundations of Performance Analysis
EXSC673 Application, Measurement and Evaluation in Performance Analysis

EXSC511 TECHNOLOGY IN HIGH PERFORMANCE SPORT

This unit will expose students to cutting-edge technologies used in high performance sport environments. This includes advanced systems such as force plates, linear position transducers, micro technologies such as global positioning systems and accelerometers, movement analysis software, and altitude training systems. Students will gain hands-on experience with the operation of such technologies, and gain a thorough understanding of their appropriate selection and use for specific situations. This includes developing an in-depth understanding of the issues associated with obtaining high-quality data and gaining the skills to determine whether specific technologies are valid and worthwhile.

EXSC513 DATA ANALYSIS AND INTERPRETATION FOR HIGH PERFORMANCE SPORT

This unit provides advanced understanding of the acquisition, analysis, and presentation of data relevant to high performance sport. Common principles for the management of data in the field, laboratory, and research environments will be explored, including developing the ability to present data in a meaningful way to a variety of audiences. The interpretation and critique of sports science data will provide a basis for the application of data management principles to problems faced in applied and research settings. An opportunity for specialisation in particular components of data management, specific to the needs of a student, will provide practical application of the content.

EXSC672 THEORETICAL FOUNDATIONS OF PERFORMANCE ANALYSIS

This unit will introduce the key concepts of performance analysis and how it can be applied in high performance sport. With a theoretical focus, there will be an emphasis on what performance is and the evolution of performance analysis and different techniques that can be utilised.

EXSC673 APPLICATION, MEASUREMENT AND EVALUATION OF PERFORMANCE ANALYSIS

This unit addresses the application of performance analysis processes in high performance sport settings. Effective and creative approaches to data management, analysis, interpretation, and reporting are keys to successful implementation and outcomes in sporting organisations. The application of performance analysis practised in a variety of sporting contexts and problems will be examined.



ACU student, Brisbane Campus

REHABILITATION

MASTER OF REHABILITATION

CAMPUS

Brisbane, Melbourne*, North Sydney*
(multi-mode – students are required to attend residential schools on the Brisbane Campus at this stage)

DURATION

Masters:

120 credit points

1.5 yrs FT (or equivalent PT)

Graduate diploma:

80 credit points

1 yr FT (or equivalent PT)

Graduate certificate:

40 credit points

1 yr PT

FEES

\$2,625 per 10 credit points

* Subject to student numbers and location of staff with pertinent expertise

The Master of Rehabilitation suite of programs aims to provide evidence-based advanced studies for health professionals, including registered physiotherapists, occupational therapists, speech pathologists, and other professionals including accredited clinical exercise physiologists or nurses who seek to extend knowledge and skills in the fields of aged and neurological rehabilitation for promotion and professional recognition, or to return to the workforce.

In addition to a non-discipline-specific stream, specialisations at the graduate certificate and masters levels in gerontological physiotherapy, neurological physiotherapy, occupational therapy, and speech pathology prepare practicing clinicians to be leaders in the field of rehabilitation – addressing many national health priority areas.

Purposely designed coursework units with evidence-based content allow for the development of advanced skills and critical appraisal of strategies and interventions, as well as completion of advanced practice units and a clinical research project within the discipline and field.

Inter-professional learning with residential intensives and webinars, in conjunction with case-based online units and evidence-based applications will be offered to all health disciplines. An inter-professional practicum with workplace applications, discipline-specific electives, and clinical research will foster advanced knowledge, skills, and applications for optimal management of older adults, people ageing with a disability, and those with neurological disorders/ABI.

ENTRY REQUIREMENTS

To be eligible for admission to the course, an applicant must have:

- a minimum grade point average (GPA) of 4.0. Applicants must hold a bachelor degree from an accredited four-year program for specialty disciplines, or an accredited three-year program for non-specialty pathway, graduate entry master, doctor (extended masters), or approved equivalent in a related discipline; AND
- a minimum of two years clinical experience in the appropriate discipline; AND
- current registration as required by your discipline, with required Authority in Australia, or Registration Authority in country of current practice.

GRADUATE CERTIFICATE IN REHABILITATION (40 CREDIT POINTS)

HLSC605 Advanced Decision Making

HLSC631 Chronic Disease and Disability in Community Contexts**

HLSC640 Interpreting Health Research

HLSC634 Practicum: Inter-professional Practice for Health Disciplines**

GRADUATE DIPLOMA IN REHABILITATION (80 CREDIT POINTS)

HLSC630 Aged and Neurological Disorders I: Holistic Management

HLSC632 Aged and Neurological Disorders II: Maximising Participation

HLSC646 Qualitative Research Methods OR

HLSC632 Approved ACU Faculty of Sciences Graduate Diploma Level Elective

HLSC647 Quantitative Research Methods

MASTER OF REHABILITATION (120 CREDIT POINTS)

Approved ACU Faculty of Health Sciences Masters Level Elective

Approved ACU Faculty of Health Sciences Masters Level Elective

HLSC617 Independent Project 2

**Students will be required to attend workshop intensives in Brisbane to complete coursework units



Student with client at ACU Health Clinic, Brisbane Campus

RESEARCH

MASTER OF HEALTH SCIENCE RESEARCH*

CAMPUS

Brisbane, Canberra, Strathfield
(multi-mode)

DURATION

1.5 yrs FT (or equivalent PT)
120 credit points

FEES

Domestic research candidates may be offered a Research Training Program Fee Offset Scholarship under the Australian Government's Research Training Program.

*Subject to review

COURSE DESCRIPTION

The Master of Health Science Research aims to provide health professionals with the knowledge and skills to be able to plan and execute a substantial piece of ethical research with a high level of personal autonomy and accountability in a range of health contexts according to their discipline.

The course offers specialisations in the following health sciences disciplines: exercise science, midwifery, nursing, occupational therapy, paramedicine, physiotherapy, public health, and speech pathology.

On successful completion of the course graduates should be able to:

- demonstrate advanced knowledge of research principles and methods applicable to health research
- assess the relative merits of quantitative, qualitative and mixed methods approaches as applied to health-related research
- critically appraise and synthesise existing research to identify gaps, strengths and weaknesses
- critically analyse research paradigms and methods as applied to specific health settings and problems
- successfully plan and run a research project including data collection, analysis and interpretation of findings
- design, evaluate, implement, analyse, theorise and disseminate research that makes a contribution to knowledge and the common good
- apply ethical principles to the research process
- utilise relevant information and technologies in the research process.

COURSE DURATION

The full-time and part-time structures of the course are based on 120 credit points; with 30 credit points of research training units and 90 credit points of thesis relating to the proposed research project.

The course duration for a full-time structure is 18 months. The part-time program is three years.

ENTRY REQUIREMENTS/SPECIAL ENTRY

To be eligible for admission to the course, an applicant must have completed:

- AQF Level 8: Bachelor degree or equivalent, with honours; OR
- AQF Level 8: Bachelor degree and postgraduate certificate or diploma in an appropriate field of study; OR
- AQF level 7: Bachelor degree in a health or health-related discipline usually with a minimum GPA of 5 and 18 months in professional practice.

HEALTH SCIENCE RESEARCH – SAMPLE PROGRAM MAP (FULL-TIME)

Year 1

Semester 1	HLSC621 Introduction to Health Sciences Research (10cp) HLSC622 Research Proposal Development in Health Sciences (10cp) Research	Thesis (20cp)
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Semester 2	HLSC625 Qualitative Research Methods (10cp) OR HLSC626 Quantitative Research Methods (10cp)	Thesis (30cp)
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Year 2

Semester 1	Thesis (40cp)
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cp – credit points

HLSC621 INTRODUCTION TO HEALTH SCIENCES RESEARCH

This unit addresses the scope of health-related research and the range of research methods available to undertake research in the health professions. As an introductory level unit, it will outline the diverse approaches that can be taken in qualitative and quantitative research. The steps in developing health-related research questions, selecting appropriate research methods for those questions and identifying, appraising and synthesising existing research findings underpinning those questions will be examined.

HLSC622 RESEARCH PROPOSAL DEVELOPMENT IN HEALTH SCIENCES RESEARCH

This unit focuses on the techniques and rigour involved in developing a research proposal and preparing an associated research ethics application. Students will be guided to develop a scholarly, coherent, and cogent research proposal, building on the development of a key research question, literature searching and critical appraisal skills developed in HLSC621 with tangible, Specific, Measurable, Attainable, Relevant, and Time-bound (SMART) objectives. It also focuses on research ethics examining the national code and ACU processes. The research proposal will form the basis for the human research ethics committee application as well as a peer review process in the Faculty of Health Sciences.

HLSC625 QUALITATIVE RESEARCH METHODS

This unit aims to develop students' abilities to use qualitative research methods in the context of ethical, person-centred health-related research. A variety of research approaches will be explored. Research questions, research design and research methods for qualitative data collection and analysis will be examined with a view to developing and conducting rigorous qualitative research.

HLSC626 QUANTITATIVE RESEARCH METHODS

This unit aims to develop students' ability to use quantitative research methods in the context of health-related research. Research questions, research design and research methods for quantitative data collection and analysis will be examined. Approaches to descriptive and inferential statistical methods will be discussed as well as issues of validity and reliability. Research proposal and report writing will be included.

RESEARCH THESIS (FULL-TIME)/RESEARCH THESIS (PART-TIME)

The research thesis permits students to undertake and report on research they have undertaken under the supervision team approved by the faculty's Associate Dean of Research. The research topic must offer sufficient scope to enable application of advanced reasoning skills within the context of the professionally orientated discipline and produce sufficient results to permit submission of an acceptable thesis. The thesis will normally be up to a maximum of 50,000 words in length.



ACU students, Melbourne Campus

MASTER OF PHILOSOPHY

CAMPUS

Brisbane, Canberra, Melbourne,
Strathfield (multi-mode)

DURATION

2 yrs FT (or equivalent PT)

FEES

Domestic research candidates may be offered a Research Training Program Fee Offset Scholarship under the Australian Government's Research Training Program.

The Master of Philosophy (MPhil) is a two year full-time (or part-time equivalent) research degree in any field covered by the University. It is assessed on the basis of a written thesis, which is submitted at the conclusion of the degree.

ENTRY REQUIREMENTS

An applicant for admission to candidature for the degree of Master of Philosophy must have completed one of the following:

- an appropriate undergraduate degree with honours at a minimum level of Second Class Division B (Hons 2B); OR
- postgraduate research training (eg coursework completed to credit level or higher or a master-by-coursework degree); OR
- demonstrated research experience with evidence of capacity to undertake independent research work (eg a first author publication).

DOCTOR OF PHILOSOPHY

CAMPUS

Brisbane, Canberra, Melbourne,
Strathfield (multi-mode)

DURATION

3 to 4 yrs FT (or equivalent PT)

FEES

Domestic research candidates may be offered a Research Training Program Fee Offset Scholarship under the Australian Government's Research Training Program.

The Doctor of Philosophy (PhD) is awarded for high-level research and, as such, it is expected that candidates will make a contribution to knowledge in their chosen field.

A PhD may be undertaken by two different means:

1. Traditional PhD: A PhD candidate's work is assessed on the basis of a thesis.
2. PhD with Publication: A PhD candidate's work is assessed on the basis of the submission of a thesis containing a number of papers written up as journal articles.

ENTRY REQUIREMENTS

An applicant for admission to candidature for the degree of Doctor of Philosophy must have completed one of the following:

- an appropriate undergraduate degree with honours at a minimum level of Second Class Division A (Honours 2A) or equivalent; OR
- a masters degree with appropriate research training in a relevant field; OR
- an equivalent qualification.

ACU

EXECUTIVE EDUCATION



Gillian McCaughey, MBA (Executive), Graduate Certificate in Management of Not-For-Profit Organisations

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We offer a range of game-changing masterclasses, short courses and postgraduate qualifications.

We also create in-house leadership programs for organisations in need of new ways of thinking for a new world.

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